The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

February 22, 2011

The Honorable Beverly Ferrante, Chairperson
Municipal and County Government Committee
Legislative Office Building, Room 301
Concord, New Hampshire 03301

Re: HB 584 authorizing coastal management provisions in master plans.

Dear Chairperson Ferrante:

Thank you for the opportunity to comment on HB 584, which would authorize municipalities to consider sea level rise in their master planning and ordinances. The Department of Environmental Services (DES) supports the bill in concept but has reservations about some language within the bill.

As background, sea level at the New Hampshire shore has been rising for the past 10,000 years. A few thousand years after the last ice age, one could walk on dry land to the Isles of Shoals. For the last two millennia, the average sea level rise rate has been about 1.7 mm/year or about 7 inches per century. Since European settlement of our coast in the 1620s, the sea level has risen over 2 feet.

There are indications today that the rate of sea level rise is increasing. Data over the last 2 decades in the Boston area show a near doubling of the historic rate. A number of factors are at work which can accelerate relative sea level rise. Some of these include: thermal expansion of the ocean; changing precipitation patterns; melting glaciers; and reduced isostatic rebound of the land. The last factor is particularly interesting. In the last ice age, the land was crushed under the weight of a mile thick ice sheet. The land rebounded significantly after the weight of that ice was released. As the land rebounded the *relative* rate of sea level rise was reduced. This rebound has now largely abated, so relative sea level rise rates tend to be greater. This also points to the importance of discussing sea level rise as a relative rate compared to land rebound/subsidence.

Given the incredible economic interests at our coast, with its beaches, industry, and valuable real estate, losses associated with sea level rise are a serious concern. In addition, the state and municipalities support significant infrastructure in the coastal zone, from roads to sewers to marinas. Modeling done by UNH Jackson Estuarine Lab has shown that 2 feet of sea level rise increases the storm surge frequencies that would impact our coasts by a factor of 10. In other words, a 100-year frequency storm surge would become a 10-year frequency event. Planning for both the historic rates of sea level rise as well as realistic predictions for the future are important to protect community and private investments on the coast. This bill attempts to do that. Our primary concerns about the bill are as follows:

1) The word "relative" should precede sea level rise throughout the bill.
2) Coastal management includes many aspects beyond planning for sea level rise. I suggest adding the words "among other things" before "planning needs" in Section O.

Thank you for this opportunity to comment on this bill. Please feel free to call Ted Diers at 271-7940 or me at 271-2958 if you have any questions or need additional information.

Very truly yours,

Thomas S. Burack
Commissioner

cc: Representatives Watters, Read, and Hooper
Senator Merrill

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