

Thank you, Mr. Chair and committee members for an opportunity to present written testimony in support for House Bill 8216. My name is Grover Fugate, and I was the former Executive Director of the CRMC for over 34 years.

Not many will know this unless you are immersed in the world of coastal management, but Rhode Island put itself light years ahead of the other programs nationally, by adopting a system of water-based zoning in the form of water types. In fact, only a few programs in the world have been able to achieve such a feat. The Rhode Island Coastal Resources Management Council (CRMC), with the help of the University of Rhode Island, developed the program in the late 1970s and early 1980s. At that time, there was very little information on shoreline processes and coastal environmental interactions. The primary driving force for the concept of water types was based on the upland use. For example, areas that were predominantly residential became type 2 waters. Marina areas became type 3 waters, and so on.

We have learned a lot since then, and have many sources of information to guide our decision making today. For example, a report was produced during the development of the Shoreline Change Special Area Management Plan (Beach

SAMP) entitled: At Risk Areas: Narragansett Bay and the Rhode Island Sound Shoreline. A Technical Report prepared for the Rhode Island Coastal Resources Management Council Shoreline Change Special Area Management Plan, by B.A. Oakley, R.J. Hollis, J.C. Boothroyd, J.H. Freedman, J.R. Boyd, and G. Fugate. 2016. This is a comprehensive look at the factors affecting risk of our shoreline studied by four coastal geologists and an environmental scientist, looking segment by segment of the entire state's shoreline, and the sort of risk it faces. This type of information would be very valuable for assessing our shoreline threats, which forms part of the basis of the water typing used by the CRMC.

The other matter to note is that our shoreline has seen many changes both physically and developmentally, which again, the original water typing was based on. Putting it simply, a lot has changed since the original water types were put in place nearly 50 years ago. The Council has occasionally revisited the water type scheme, but on a limited basis. During the development of the Greenwich Bay Special Area Management Plan, for example, the Council retyped nearly 5 miles of shoreline from type 3 waters (high intensity boating and marine recreation) to type 2 waters (low intensity residential and conservation-oriented areas). This was done because the original planning exercise miscategorized segments of the

shoreline, which by zoning and use, were residential. It is important to note that this was done with the complete support of the Marine Trades Association at the time. It is now time to go back and look at the water types and make sure that they are matching up to our current understanding of how our coastal areas have progressed, and verify that the water types are still meeting the needs of the State.

The second task this bill directs the Council to do is to look at their policies in light of climate change. Our shoreline has undergone profound changes in just the last several decades, with more intense changes predicted to come. We will see more intense storms, accelerated coastal erosion, accelerated sea level rise, warming waters and the disappearance of valuable coastal habitats. These are only a few of the many changes that we can expect. Stormtools and the Beach SAMP, developed by the University of Rhode Island and the Council, give us a glimpse of what our future shoreline will look like. The Council should use this information and look at each of its policies to ensure that they are meeting our future needs. As one example, the Council, by policy, allows for an additional one foot in added height to be incorporated into a revetment repair. Revetment designs are typically done for a 25–30-year design life. Yet, we estimate we will see an addition one to

two feet of sea level rise during the next 20 years. The estimates also show that sea level rise will accelerate beyond the next 20 years to potentially 6 feet by 2100. Therefore, wouldn't it make sense to allow two to three feet in additional height for a revetment repair to compensate for the additional sea level rise during the design life? This is just one example of the many evaluations that the Council needs to undertake to prepare us for our future.

It is for these reasons I support House Bill-8216. Thank you.

Grover Fugate (Former Executive Director of the CRMC 1986-2020)