SB0783: Favorable Testimony of Thomas E Moore, 3rd Rock Research The Environmental Human Rights Amendment (EHRA) 9 March 2022 p.1

1. Today I ask you for a favorable report on the EHRA: I'm a Fellow of the American Geophysical Union, and a retired NASA Manager and Project Scientist who resides in Annapolis, MD. I'm an engineering physics consultant to efforts to reduce fuel burning, carbon emissions and the global warming, ice melt, and sea level rise that concern us all.

2. We have an implicit right *and* obligation to the environment out of which we were born:

The environment that creates life is self-evidently the birthright and estate of the life it sustains. We must assert a right to enjoy and benefit from our healthful natural environment. We should not allow individuals and corporations to foul or exploit our environment to enrich themselves at our expense, or for any other reason. SB0783 will document and enforce this right.

3. The state is responsible to voters as stewards and trustees of that environment: Our Constitution serves to establish and uphold the rights of citizens and provide the framework for law and order, assuring equal rights to all before the law. Citizens rightly expect elected officials to protect the common good and assure that it benefits us all. Stewards must be empowered to hold exploiters accountable. SB0783 will empower you to do this.

4. We are making Annapolis and tidewater Maryland a "low country" like Holland: In the 1980s, we learned that the seemingly harmless carbon dioxide released from burning fuels is warming our entire planet by the greenhouse effect. We verified this by noting the global melting of ice and corresponding raising of sea levels everywhere. Science confirms that we can expect to face a continually increasing existential threat to our low-lying infrastructure from rising seas.

5. Without immediate, affordable actions, we will incur overwhelming expenses: Once a seasonal nuisance, flooding now occurs about 40 days per year in Annapolis, and is expected to become a daily occurrence. A 5 to 6 foot sea wall is needed now to protect the US Naval Academy and downtown businesses. These and many other threatened Maryland sites are essential to the prosperity of the state and region.

6. Voters will pass the EHRA to ratify and enable your trusteeship of the environment: Polls (MDEHR) show 76% of Maryland voters support this amendment. They recognize EHRA as a necessary legal foundation for the bold action required to respond in an appropriate manner to these clear threats to Annapolis and the State of Maryland.

I attach a few exhibits and am happy to respond to questions at 443-254-4712, or thomem@iiirdrock.net

SB0783: Favorable Testimony of Thomas E Moore, 3rd Rock Research The Environmental Human Rights Amendment (EHRA) 9 March 2022 p.2

Exhibit 1. City of Annapolis Climate Report Current values and events: :



Summary of Key Elevations

Flooding Through Storm Drains – 1.9 feet NAVD88 Extreme High Tide in March 2018 – 2.7 feet NAVD88 Protection after Flood Mitigation project – 3.2 feet NAVD88 Ten Year Storm Elevation – 3.7 feet NAVD88 Base Flood Elevation (100-Yr Storm) – 5.0 feet NAVD88 Hurricane Isabel (September 2003) – 6.4 feet NAVD88

Exhibit 2. Recent FEMA flood insurance rate map projects 100 year flood levels in downtown that far exceed current floodplain designations.



Flood elevation 8.2 ft. 1% annual chance flood (4.5') plus 3.7 feet for sea level rise by 2100

SB0783: Favorable Testimony of Thomas E Moore, 3rd Rock Research The Environmental Human Rights Amendment (EHRA) 9 March 2022 p.3

Exhibit 3. A Naval Academy Study of this century's projected sea level rise projects about 1.9 feet of Mean Seal Level (MSL) rise by 2050. A 2022 NOAA Sea Level Report moderated that to about 1.0 foot, but only IF emissions are curbed. If not, it also projects 5-7 feet by 2100.

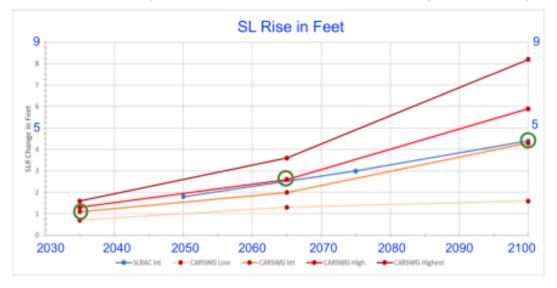


Exhibit 4. The recommended new seawall is 5.2 feet above current MSL Future MSL and 100 year flood levels based on rising MSL are shown at three dates.

