

**EXHIBIT G: LONG-TERM COMMITMENT**

**COMMONWEALTH OF VIRGINIA**

**ExhibitGLong-termCommitment.pdf**

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The Commonwealth of Virginia, the Hampton Roads region and its individual localities have already taken major steps to improve permanent resilience far beyond its most impacted and distressed target areas. These include resilient legislative actions, raising standards, plan updates and alignments, and resilient actions related to financing.

**Legislative and Administrative Action.** In July 2014, Governor Terry McAuliffe signed Executive Order 19, convening a Climate Change and Resilience Update Commission “to prepare Virginia’s coastal communities to deal with the growing threat of climate change.” The Commission builds on the Virginia Governor’s Climate Change Commission, which laid out a detailed adaptation plan for the state in 2008. An example of implemented action includes the passage of the Coastal Resource Management Law of 2011 by the Virginia legislature, which requires localities to include coastal management strategies – including sea level rise projections and scientific evidence – in long range land use plans starting in 2013.

Additionally, in response to recommendations by Virginia’s Subcommittee on Recurrent Flooding, Virginia was the first state to name a Chief Resilience Officer. In December 2014 Governor McAuliffe created the position of State Chief Resilience Officer to coordinate resilience actions at the state level.

Finally, in July 2014, the Commonwealth instituted new stormwater regulations which significantly increase the number of Low Impact Development (LID), Best Management Practices (BMP) required to meet water quality requirements. Virginia’s revised water quality criteria of 0.41 pounds per acre per year of phosphorus protects local water quality and achieves no net increase in nutrients for new development.

**Higher Standards at the Local Level.** As a result of regulatory changes that give a preference to wetland restoration to mitigate coastal erosion, and federal water quality requirements that improved the cost effectiveness of the wetland restoration strategy, mitigation activities have increased dramatically in Hampton Roads. In Norfolk alone, wetland areas increased from 3,124 square feet to 60,846 square feet between FY2008 and FY2011. Following Hurricane Irene, wetlands more than tripled to 217,070 square

feet by FY2014 as a result of dedicated restoration efforts, reducing vulnerability of the Lafayette River watershed, Norfolk's largest, which includes 26,624 parcels on 8,787 acres of land and approximately 81,000 residents. At the local level, many Hampton Roads cities have significantly raised standards in their floodplain ordinances in response to increasing threats. Effective January 2014, Norfolk mandated 3 feet of freeboard for structures in the 100-year floodplain and a 1.5 foot freeboard for structures in the 500-year flood zone compared to the previous 1 foot requirement. Hampton similarly increased freeboard requirement to 3 feet in September 2014, while Virginia Beach requires 2 feet freeboard. In July 2013, the City of Chesapeake increased its freeboard from 1 foot to 1.5 feet. These changes will increase permanent resilience by reducing risk to all new and future structures built in flood-prone areas. Should Sandy-like storm hit the region, more than 56,000 structures in the floodplain would have to be rebuilt at these standards in Norfolk alone if they were destroyed or sustained substantial damage.

**Resilience Actions Related to Plan Updates or Alignment.** As part of its long-term commitment to enhancing resilience, the Commonwealth of Virginia commissioned three formal reviews of climate change and its impacts. The three plans build on each other and include the 2008 Climate Action Plan, the 2013 Virginia Institute of Marine Science study on *Recurrent Flooding in Tidewater Virginia* and the September 2014 action plan by the Recurrent Flooding Sub-Panel of the Virginia General Assembly Secure Commonwealth Panel.

Several Hampton Roads cities are in the process of creating or have already developed watershed management plans. For example, beginning in 2007, the City of Norfolk conducted a series of watershed specific coastal and precipitation flooding studies to better understand where and why flooding was increasing in the city. The studies led to the development in 2014 of a Comprehensive Flooding Strategy and a Combined Coastal & Precipitation Flooding Master Plan for the City. Since 2014, as part of the City's participation in the 100 Resilient Cities network, Norfolk has been developing a comprehensive resilience strategy for the city, including a long-term recovery plan which integrates

lessons learned from previous events including Hurricane Irene and Hurricane Sandy as well as best practices from around the world. Norfolk is presently rewriting the zoning code ordinance which will be guided by a resilience framework being developed in cooperation with 100 Resilient Cities, the American Planning Association, the Urban Land Institute and others.

**Resilient Actions Related to Financing.** Hampton Roads localities have begun to explore new financing mechanisms dedicated to addressing identified risk and vulnerabilities. For example, in 2012 Norfolk increased its Storm Water Fund by \$1 per month per account, raising nearly \$1.3 million annually.

**Conclusion.** Virginia is committed to continued action that will increase resilience and mitigate the impact of sea level rise in the Hampton Roads region, especially in its most impacted and distressed target areas (see Exhibit B, p. 4) within one year of the announcement of Phase II results. This proposal for **THRIVE: Resilience In Virginia** represents a shift to a comprehensive, well-coordinated regional approach that will coordinate all of Hampton Roads' resilience efforts – not simply the projects that would be funded through a HUD NDRC award.