ATTACHMENT B

LEVERAGE DOCUMENTATION

COMMONWEALTH OF VIRGINIA

AttBLeverageDocumentation.pdf

COMMONWEALTH of VIRGINIA

Office of the Governor

Terence R. McAuliffe
Governor

October 27, 2015

The Honorable Julián Castro
Secretary of Housing and Urban Development
U.S. Department of Housing and Urban Development
451 7th Street S.W.
Washington, D.C. 20410

Dear Secretary Castro:

To support the Commonwealth of Virginia's application to the U.S. Department of Housing and Urban Development's (HUD) National Disaster Resilience Competition (NDRC), I pledge the full cooperation of state executive branch agencies during this grant program's anticipated period of performance. In addition, Virginia has committed $72,193,642 dollars in direct and supporting leverage, as detailed in the attached table.

Our proposal, *ThRIVe—Resiliency in Virginia*, represents a collaborative effort to create long-lasting resilience at all levels by uniting communities in Hampton Roads around shared water challenges, improving economic vitality, and strengthening vulnerable neighborhoods by building social cohesion around water management solutions. This globally important region is already facing the effects of sea level rise, exacerbated by land subsidence and resulting in an area experiencing the impacts of climate change more rapidly than other coastal communities.

Please rest assured that we will continue aggressively seeking additional resources and partnerships to complement our HUD/NDRC strategy for Hampton Roads, and to help build resilience across Virginia.

Sincerely,

Terence R. McAuliffe

Attachment (1): *Table of State Agencies' Direct and Supporting Leverage*

Patrick Henry Building • 1111 East Broad Street • Richmond, Virginia 23219
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www.governor.virginia.gov

DIRECT LEVERAGE – STATE

Cash			$200,000	Governor's commitment to support resilience effort.

SUB-TOTAL: $200,000.00

SUPPORTING LEVERAGE – STATE

Source of Leverage	Locality Assisted	Date of Project	Dollar Amount	Brief Description of Project
Virginia Department of Health	Statewide	July 2015	$22,000	VDH Office of Minority Health employs rural health funds to conduct agency-specific telehealth needs assessments. Complements tele-health project to localities.
Virginia Department of Health	Chesapeake	July 2015, Annually	$60,000	One of the target communities (Chesapeake) is applying to fund a regional alert system. VDH, VDEM, and other state agencies employ the same system (Everbridge), thereby enhancing interoperability and resilience.
Virginia Department of Health	Norfolk	July 2015	$2,300	VDH Office of Drinking Water and EPA are working together to support ongoing pilot study work at the City of Norfolk waterworks addressing climate change, storm surge, sustainability and resilience to ensure a safe and adequate water supply is maintained during these potential hazards.
Department of Environmental Quality	Statewide	2013-2015	$1,065,000	Stormwater Management Training statewide (5,210 people).
Department of Environmental Quality	Statewide	2013-2015	$435,000	Erosion & Sediment Control Training statewide (2,170 people).
Department of Environmental Quality	Hampton Roads[1]	2015	$5,000	Project WET Climate Resiliency Professional Development and Technical Assistance 2015 Hampton Roads (40 people).
Virginia Department of Game and Inland Fisheries	Hampton Roads/ Chesapeake	2015-2017	$3,000,000	In partnership with the Wildlife Foundation of VA and the US Fish and Wildlife Service, the DGIF is leveraging a Hurricane Sandy resiliency grant (through the Foundation) to effect hydrologic restoration at the Cavalier WMA. This property was historically part of the "Green Sea" most of which has been ditched and drained over the past 200 years. Restoring hydrologic function and connectivity to the Great Dismal Swamp will greatly

[1] Hampton Roads is the name for the geographic area that covers all 3 eligible project localities – Chesapeake, Newport News and Norfolk.

Source of Leverage	Locality Assisted	Date of Project	Dollar Amount	Brief Description of Project
				facilitate restoring native habitats (such as Atlantic White Cedar) in the area.
Virginia Department of Game and Inland Fisheries	Hampton Roads	Annually	$190,000	Annually, the DGIF funds operational investments into Cavalier WMA (and Princess Anne WMA) to manage habitats. Activities include farm practices, manipulating water levels, control of invasive species and mowing.
Department Of Environmental Quality	Norfolk	2015-2016	$10,000,000	Sewer system improvements to prevent sanitary sewer overflows.
Department Of Environmental Quality	Chesapeake	2016-2017	$1,250,000	Stormwater BMP – wet ponds.
Department Of Environmental Quality	Newport News	2016-2017	$1,442,503	Stormwater BMPs – wet ponds & stream restorations.
Department Of Environmental Quality	Norfolk	2016-2017	$539,441	Stormwater BMPs – dry pond, retention ponds & stream restoration.
Department Of Environmental Quality	Statewide	2016-2017	$4,000,000	Statewide land cover GIS data, including LiDAR data for areas prone to recurrent flooding on the Eastern Shore.
Department Of Environmental Quality	Norfolk	2016-2017	$6,000,000	Sewer system improvements to prevent sanitary sewer overflows.
Department Of Environmental Quality	Norfolk	2016-2017	$1,195,000	Stormwater BMPs – multiple projects.
Department Of Environmental Quality Assistance Fund	Chesapeake	2016-2017	$412,000	Stormwater BMPs – wet pond & wetlands bench.
Department Of Environmental Quality	Newport News	2016-2017	$803,750	Stormwater BMPs – constructed wetlands & stream restoration.
Department Of Environmental Quality	Norfolk	2016-2017	$1,548,476	Storm water BMPs – retention ponds, constructed wetlands & stream restoration.
Department Of Environmental Quality	Hampton Roads	2016-2020	$135,000	Grant to improve coastal resiliency through better shoreline management - VIMS (Virginia Institute of Marine Science).
Department Of Environmental Quality	Statewide	2017-2021	$850,000	Grants to build coastal resilience.
Department of Conservation and Recreation	Chesapeake, Norfolk, Newport	Annually	$31,044	Dam safety engineers – Two engineers spend time on issues affecting these three localities. Their estimated wages associated

Source of Leverage	Locality Assisted	Date of Project	Dollar Amount	Brief Description of Project
	News			with support to these localities is $31,044 in state general funds.
Department of Conservation and Recreation	Chesapeake, Norfolk, Newport News	Annually	$15,823	Floodplain program planners – Two planners spend time on issues affecting these three localities. Their estimated wages associated with support provided to these localities is $15,823 in FEMA federal grant funds.
Department of Conservation and Recreation	Statewide/ Chesapeake, Norfolk, Newport News	2015	$10,000	Statewide probable maximum precipitation study, for use in our dam safety program, which is scheduled to be completed by December 1st in accordance with Chapter 475 (HB1006) of the 2014 Virginia Acts of Assembly. We estimate that $10,000 in state special funds could be allocated as support for these localities.
Department of Conservation and Recreation	Statewide/ Chesapeake, Norfolk, Newport News	2016	$1,000	Development of Flood Protection Plan as called for in Chapter 182 (HB1817) of the 2015 Virginia Acts of Assembly. We estimate that $1,000 in state special funds could be allocated as support for these localities.
Virginia Department of Transportation – James River Bridge	Newport News/ All Hampton Roads communities	February 10, 2015	$500,000	Evaluation and scoping for deck joint elimination, deck overlay and beam repair. Project identifies maintenance issues to protect infrastructure. Bridge is a primary evacuation route for Hampton Roads.
Virginia Department of Transportation – Monitor Merrimac Memorial Bridge Tunnel	Newport News/ All Hampton Roads communities	November 13, 2015 (North)	$14,800,000	Deck overlay and parapet waterproofing. Project identifies maintenance issues to protect infrastructure. Bridge is a primary evacuation route for Hampton Roads.
Virginia Department of Transportation – Multiple	Hampton Roads	February 23, 2015	$1,000,000	Provides increased operational life of electronic roadway signs that provide guidance and information to motorists in the Hampton Roads metropolitan service area.
Virginia Department of Transportation – Multiple	Hampton Roads	May 26, 2015	$2,000,000	Provides increased operational life of electronic roadway signs that provide guidance and information to motorists in the Hampton Roads metropolitan service area.
Virginia Department of Transportation – Multiple	Hampton Roads	December 15, 2015	$300,000	Emergency generator power upgrades for TOC and Area Command facility.
Virginia Department of Transportation – Hampton Roads Bridge Tunnel	All Hampton Roads communities	2015-2016	$9,916,949	Maintenance and upgrades to HRBT. (Such as: re-roofing ventilation fans; roof overhang; repair tidal flood gates; ceiling tiles; upgrade communications cable; upgrade pumps; prevent water infiltration; reinforce stone armor; design plans to address

Source of Leverage	Locality Assisted	Date of Project	Dollar Amount	Brief Description of Project
				tide gate issues).
Virginia Department of Transportation – All Tunnels	All	October 19, 2015	$53,000	Reinforce response practices for disaster events, increasing and improving response and preparedness operations and area protections.
Virginia Department of Transportation – Monitor Merrimac Memorial Bridge Tunnel	All Hampton Roads communities / Newport News	2015-2016	$1,428,734	Maintenance and upgrades to MMMBT. (Such as, design plans for MMMBT pump controls upgrade, replace HVAC units, and upgrade radio communications system.)
Virginia Department of Transportation – James River Bridge	All Hampton Roads communities / Newport News	August 1, 2015	$389,000	Roof deteriorated in harsh environment. Protects personnel, electronic equipment, etc.
Virginia Department of Transportation – Berkley Bridge	All Hampton Roads communities / Norfolk	September 1, 2016	$6,580,000	Removal of existing warning gates, bikeway gates, warning gongs and associated components and equipment and replace with new warning gates and enlarge platforms, bikeway gates, resistant gates and warning gongs and all associated electrical. Install new flood-resistant gates. Design plans to replace Berkley Bridge drive system.
Virginia Department of Transportation - High Rise Bridge	All Hampton Roads communities/ Chesapeake	July 1, 2016	$1,276,000	Design plans to relocate and replace High Rise Bridge backup generator to Chesapeake side shore from draw house.
Hazard Mitigation Grant Program	Hampton Roads	October 23, 2014	$280,194	Increase area resiliency through protective, mitigating and re-development programs to stem risks from natural hazards.
Science Museum of Virginia	Statewide	2016-2019	$456,428	Provide climate change and resiliency programming to Virginians. This project is also supported by the Virginia Environment Endowment with a grant in the amount of $25,000 and the Virginia Sea Grant through a $10,000 gift.

SUB-TOTAL: $ 71,993,642.00

GRAND TOTAL FOR DIRECT AND SUPPORTING LEVERAGE: $ 72,193,642.00

OLD DOMINION UNIVERSITY

OFFICE OF THE VICE PRESIDENT FOR RESEARCH

Physical Address
4111 Monarch Way, Suite 203
Norfolk, Virginia 23508
Mailing Address
Office of Research
1 Old Dominion University
Norfolk, Virginia 23529
Phone (757) 683-3460
Fax (757) 683-5902

March 23, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

Dear Governor McAuliffe,

Re: Commitment of Leverage Resources

Old Dominion University is committed to working with the Commonwealth of Virginia to increase resilience and mitigate the impact of sea level rise in the Hampton Roads Region. As evidence of this commitment, we are making $50,000 in funding available to you for the activities directly related to undertaking your CDBG-NDR proposal.

Sincerely,

Morris Foster, Ph.D.
Vice President for Research

Old Dominion University is an equal opportunity, affirmative action institution.

NORFOLK

Office of the City Manager

October 20, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

Re: Community Development Block Grant - National Disaster Resilience Competition Phase II: Letter documenting Direct Financial Commitment of $381,068,563.

Dear Governor McAuliffe:

The City of Norfolk is pleased to join the Commonwealth of Virginia as a Partner in its efforts to improve disaster resiliency in the Hampton Roads region utilizing Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

The City of Norfolk is committed to working with the Commonwealth of Virginia to increase resilience and mitigate the impact of sea level rise in the Hampton Roads Region. As evidence of this commitment, we are making $381,068,563 in direct commitment funding available to you to directly carry out for your CDBG-NDR proposal. The funds have been used since September 2014 and will be used to implement the overall CDBG-NDR program to address Unmet Needs in the Most Impacted and Distressed area (MID-URN) in the City of Norfolk.

In Phase 1 the entire City of Norfolk except six census tracts qualified as the MID-URN area. In Phase 2 the City of Norfolk proposes two watersheds, Newton's Creek Watershed and Ohio Creek Watershed, as MID-URN sub-area for the proposed CDBG-NDR-assisted projects.

The City of Norfolk's Unmet Needs in the Most Impacted and Distressed area (which encompasses the entire city except six census tracts as demonstrated in Phase I) include a system of edge conditions and watersheds that increase the city's exposure to recurrent flooding in light of rising sea level. Over the past several years the city has developed an innovative approach to managing water across all edge conditions and watershed areas. Norfolk's unmet needs program systematically addresses the entire MID-URN area. The two projects in City of Norfolk for which the Applicant, the Commonwealth of Virginia, is requesting CDBG-NDR assistance are in sub-area of the Norfolk's overall qualified MID-URN Target Area. These projects include prototype solutions to three conditions in two of the city's watersheds. The city's remaining edge conditions are being addressed through innovative methods which are not included as part of the requested CDBG-NDR funds, but are part of the city's CDBG-NDR overall program area and are strengthened by and will strengthen the solutions proposed for funding in this application in addition to addressing the causes

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of Unmet Needs from the Qualifying Disaster, Hurricane Irene, in the city's overall Most Impacted and Distressed Target Area.

Because the City is strengthening the resilience using non-CDBG-NDR funds in the rest of the MID-URN area outside the CDBG-NDR-assisted project sub-area, the City counts these leverage resources as direct leverage to the project sub-area defined for funding in this grant. The rest of the MID-URN area outside of the CDBG-NDR-assisted project sub-area includes edge bay-front coastal conditions, river-front coastal conditions, marsh, and wetland edge conditions that repeat themselves across the Norfolk's MID-URN, across the entire region and across the entire Chesapeake Bay system and beyond. Solutions implemented in these areas are strengthening Norfolk's ability to withstand increasing threats from sea level rise and resultant flooding taking place across the city. By doing so, these solutions are addressing causes which led to Unmet Needs from the Qualifying Disaster, Hurricane Irene, in the Norfolk entire MID-URN area.

The two projects proposed for the CDBG-NDR funding area part of and will support Norfolk's overall CDBG-NDR resilience program that is designed to reduce risk in Norfolk's entire MID-URN-qualified Target Area.

CDBG-NDR Resilience Program in Norfolk's overall MID-URN Target Area: Current and future expenditures since September 2014

Beach Nourishment along the entire shoreline between Little Creek Inlet and tip of Willoughby Spit to alleviate flooding and strengthen the area's resilience against future storm events.	Project Cost: $18.4 million - $12.9 million authorized by U.S. Army Corps of Engineers - City cost share: $5.5 million (*included in the Storm Water Utility category below)
Implementation of eight shoreline restoration projects, development of a green infrastructure training program and green infrastructure plan and framework to alleviate flooding and strengthen resilience of the Lafayette River Watershed.	Project Cost: $4,640,000 - $4,382,652 awarded in the National Fish and Wildlife Foundation Sandy Grant - City cost share: $257,343 (*included in the Storm Water Utility category below)
Mayor's Poverty Commission funds including the Affordable Housing Trust Fund	FY2015 - $500,000 FY2016 - $2,500,000
Subtotal Grant and Operating Funds	**$20,282,652**

Capital Projects Funds	FY2015 (9/1/2014 - 6/30/2015) - FY2021 Category Total
Environmental Sustainability	$16,341,667
Safe, Healthy and Inclusive Communities	$19,841,667
Storm Water Utility**	$30,078,867
Wastewater Utility	$116,166,667
Water Utility	$85,625,000
Subtotal Capital Projects	**$268,053,867**
Stormwater Operating Funds	**FY2015 (9/1/2014 - 6/30/2015) - FY2016**
Stormwater Utility Operating Budget	$28,307,044
Subtotal Operating Funds	**$28,307,044**
Total Grant, Operating and Capital Program Funds	**$316,643,563**

*Includes match for the projects above

**Excludes Capital Projects allocated directly to the CDBG-NDR-assisted project area below

The MID-URN Sub-Area proposed for the CDBG-NDR-assisted projects: Current and future expenditures since September 2014:

Operating Funds	FY2021 - FY2065
The City commits to fund Operations & Maintenance (O&M) costs of the proposed CDBG-NDR-assisted projects in the Ohio Creek Watershed and Newton's Creek Watershed over the projects life cycle	$61,600,000 ($1,400,000/yr)
Capital Projects**	**FY 2015 (9/1/2014 - 6/30/2015) - FY2021**

Kimball Terrace Culvert Replacement - Ohio Creek Watershed	$1,200,000
Installation of Tide Gauge at Grandy Village – Ohio Creek Watershed	$50,000
Line Power to Ohio Creek Flood Control Project – Ohio Creek Watershed	$150,000
Westminster Road Way Replacement – Ohio Creek Watershed	$225,000
Spartan Village Acquisition – Ohio Creek Watershed	$1,200,000
Total	**$64,425,000**

This direct financial commitment is subject to the award of CDBG-NDR grant funds.

Sincerely yours,

Marcus D. Jones
City Manager

810 Union Street, #1101 • Norfolk, VA 23510
Phone: 757-664-4242 • Fax: 757-664-4239

NORFOLK

Office of the City Manager

March 20, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

Re: Commitment of Leverage Resources

The City of Norfolk is committed to working with the Commonwealth of Virginia to increase resilience and mitigate the impact of sea level rise in the Hampton Roads Region. As evidence of this commitment, we are making $125,000 in supporting commitment funding available to you for the activities directly related to undertaking your CDBG-NDR proposal. The funds were used during December 2014 to support an Urban Land Institute Resilience Technical Panel, the result of which will be used in the development of projects during Phase 2 of the NDRC grant process.

Sincerely,

Marcus D. Jones
City Manager

810 Union Street, #1101 • Norfolk, VA 23510
Phone: 757-664-4242 • Fax: 757-664-4239

Chesapeake VIRGINIA

City of Chesapeake

Office of the City Manager
306 Cedar Road
Chesapeake, Virginia 23322
Office: (757) 382-6166
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TDD: (757) 382-8214

October 21, 2015

The Honorable Terence R. McAuliffe
Governor
Commonwealth of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant National Disaster Resilience (CDBG-NDR) Competition Grant Commitment and Pledge of Direct Leverage Funds

Dear Governor McAuliffe:

On October 13, 2015, the Chesapeake City Council unanimously approved execution of the partnership agreement for the U.S. Housing and Urban Development—National Disaster Resilience (HUD CDBG-NDR) Competition. This letter is to confirm that, subject to appropriations, the City of Chesapeake firmly commits to providing a total of $41,240,000.00 in direct leverage from its Capital Improvement Plan funds for activities as proposed in the Commonwealth of Virginia's HUD CDBG-NDR grant proposal and that all of Chesapeake's committed funds are subject to the award of HUD CDBG-NDR grant funds. The funds committed below are committed through the Capital Improvement Budget and were pledged after the initial publication of the original HUD CDBG-NDR Notice of Funding Availability on September 17, 2014, or, the City of Chesapeake has made a determination, subject to appropriations, to commit these funds to leverage the activities it proposed in the HUD CDBG-NDR competition for activities in Chesapeake's HUD approved Most Impacted and Distressed Unmet Recovery Need (MID-URN) target area. For detailed information on each project activity below, see Exhibit F: Leverage.

The project activities and funding listed below are located in, and will be executed in, the Phase I HUD-approved MID-URN target area, census tracts 214.03, 200.02, 200.03, 201, 202, 203, 204, 205, 206, 207, 208.08, 208.09, 209.03, 209.04:

- 22nd St Bridge replacement in target area South Norfolk, South Norfolk watershed — $18,000,000
- Public works infrastructure replacement and upgrade to increase resiliency in South Norfolk/Liberty Street area, South Norfolk watershed — $ 1,500,000

"The City of Chesapeake adheres to the principles of equal employment opportunity. This policy extends to all programs and services supported by the City."

• Public works activities to increase resiliency in target area South Norfolk/Oakdale, South Norfolk watershed	$ 5,000,000
• Drainage improvement activities in target area South Norfolk/ Portlock, South Norfolk watershed	$ 800,000
• Chesapeake/Hampton Roads Sanitation District wastewater activities in target area South Norfolk area, South Norfolk watershed	$ 8,000,000
• Five-year public utilities activities in target area Bainbridge Blvd., South Norfolk watershed	$ 7,000,000
• Long-term maintenance for all Chesapeake activities	$ 940,000
Total committed funds pledged as leverage:	$ 41,240,000

Sincerely,

James E. Baker
City Manager

JEB:KL:sc

City of Newport News

Virginia 23607

Office Of The City Manager

2400 Washington Avenue
(757) 926-8411
Fax (757) 926-3503

October 26, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, Virginia 23219

Dear Governor McAuliffe:

The City of Newport News is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve resiliency in the Hampton Roads region with Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

This letter represents our supporting commitment of $10,115,000 for projects that increase Virginia's capacity to build resiliency in the Southeast Community.

Our contribution to this endeavor will come through a combination of programmed and expended project investments to enhance drainage, provide more resilient infrastructure and improve social and economic resiliency in this flood-prone area as evidenced by the list of projects below.

Project Name	Project Costs	Source
Chesapeake Avenue Seawall and Bike Path	$ 707,000	Grant/City Funds
Urban Stream Restoration and Wetlands	$ 441,000	Grant/City Funds
Short Street and Christopher Shores Drainage Improvements	$ 840,000	City Funds
27th Street & Buxton Avenue Grade Adjustments	$ 1,472,000	Grant/City Funds
Chesapeake Avenue Tide Gate and Pump Station	$ 855,000	City Funds
Lower Jefferson Avenue Streetscape 12th - 24th Streets	$ 2,000,000	Grant/City Funds
Southeast Neighborhood Grocery Store	$ 3,800,000	City Funds
Total	$ 10,115,000	

These funds are available to complete the work described above within the grant period.

Sincerely,

James M. Bourey
City Manager

JMB:SMG:mat

HAMPTON ROADS PDC
PLANNING DISTRICT COMMISSION

CLYDE A. HAULMAN CHAIRMAN • ELLA P. WARD, VICE-CHAIR • MARCUS D. JONES, TREASURER
ROBERT A. CRUM, JR. EXECUTIVE DIRECTOR/SECRETARY

MEMBER JURISDICTIONS

CHESAPEAKE

FRANKLIN

GLOUCESTER

HAMPTON

ISLE OF WIGHT

JAMES CITY

NEWPORT NEWS

NORFOLK

POQUOSON

PORTSMOUTH

SMITHFIELD

SOUTHAMPTON

SUFFOLK

SURRY

VIRGINIA BEACH

WILLIAMSBURG

YORK

October 16, 2015

The Honorable Terence R. McAuliffe
Governor, Commonwealth of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant - National Disaster Resilience Competition Phase II: Letter documenting Supporting Commitment of $280,194

Dear Governor McAuliffe:

The Hampton Roads Planning District Commission is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve resiliency in the Hampton Roads region with Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

This letter represents our supporting commitment of $280,194 with a 5% local match that increases Virginia's capacity to build resiliency in the Hampton Roads area.

We are contributing to this endeavor through a funded grant through the Virginia Department of Emergency's Management Hazard Mitigation Grant Program along with a 5% local match to complete a Regional Hazard Mitigation Plan. The general purposes of this plan is to increase regional resiliency by

- Protecting life and property by reducing the potential for future damages and economic losses that result from natural hazards;
- Qualifying for additional grant funding, in both the pre-disaster and post-disaster environment;
- Speeding recovery and redevelopment following future disasters
- Integrate existing flood mitigation documents;
- Demonstrating a firm local commitment to hazard mitigation principles; and comply with state and federal legislative requirements tied to local hazard mitigation planning.

This grant funding was awarded on March 6, 2014, however the contract with the consultant was not signed until October 23, 2014, and the funds are available to complete the work described above within the grant period. This supporting commitment is subject to the award of CDBG-NDR grant funds.

Sincerely,

Robert A. Crum
Executive Director

RK/jc

Robert M. Blue
Senior Vice President - Regulation, Law, Energy Solutions and Policy

Dominion Resources, Inc.
120 Tredegar Street, Richmond, VA 23219

Mailing Address: P.O. Box 26532
Richmond, VA 23261

dom.com

October 26, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant - National Disaster Resilience Competition Phase II: Letter documenting Supporting Commitment of approximately $34 million.

Dear Governor McAuliffe:

Dominion is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve resiliency in the Hampton Roads region with Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

This letter represents our supporting commitment of approximately $34 million in the form of electric transmission system upgrades and EnergyShare funding. These investments will increase Virginia's capacity to build resiliency in the electric system supporting the cities of the Hampton Roads area. In addition to improving and maintaining electrical reliability in the area, the transmission investments will provide the region with greater access to lower-emissions forms of electric generation, including generation resources with no or lower carbon emissions.

The increased funding for EnergyShare will provide additional energy assistance to many customers, including persons with low incomes, the elderly, military veterans and Virginians living with disabilities. Additionally, the EnergyShare funding will support property improvements to weatherize homes, making them more energy efficient over the long term and reducing their energy usage. The more efficient use of energy also will support Virginia's goal of improved resiliency.

This commitment was made effective September 2015 and the funds are available to complete the work described above within the grant period.

Sincerely yours,

Robert M. Blue

blue moon fund
222 W. South Street
Charlottesville, VA 22902

October 23, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant - National Disaster Resilience Competition Phase II: Letter documenting Supporting Commitment of $2 million.

Dear Governor McAuliffe,

blue moon fund is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve resiliency in the Hampton Roads region with Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

This letter represents our supporting commitment of $2 million in the form of ten grants to Old Dominion University, the Virginia Institute of Marine Science (VIMS), the Virginia Coastal Policy Center at William & Mary Law School and five other organizations that increase Virginia's capacity to build resiliency in the Hampton Roads region. These grants will launch a sea level rise data repository and portal at VIMS, which will be a valuable tool for planners and decision makers; enable completion of the Intergovernmental Planning Pilot Project, which is developing procedures for coordinating Federal, state and local resilience planning and is critical in Hampton Roads due to the large waterfront areas that are Federal or state property; and greatly expand existing education and training programs on seal level rise adaptation and coastal resilience for professionals (engineers, planners and managers) and the public. All of these initiatives will greatly enhance the ability of Hampton Roads to utilize NDRC funds with greatest possible effectiveness.

In addition to the grants described above, we are working on five additional grants that we expect to be awarded by March 2016. They include high resolution subsidence mapping that is orders of magnitude more accurate than currently available data, enhancement of geographic information systems (GIS) in Hampton Roads and development of data layers that local governments and state agencies need for adaptation and resilience planning, developing an integrated suite of planning tools incorporating "best of breed" tools currently available and filling any capacity gaps identified during the project, and expanding research and analysis support for adaptation and resilience planning across all Virginia universities with relevant programs – no single university has all the expertise that is needed, but collectively they do. The level of funding required for these initiatives is still being estimated, but probably will be on the

order of $5 million. These initiatives will further increase the ability of the Commonwealth and communities in Hampton Roads to gain the greatest possible benefit from the NDRC funds.

The ten grants mentioned above were awarded in September 2015 and the funds are available to complete the work described above within the grant period. Award of the additional grants described above that currently are under development is subject to the award of CDBG-NDRC grant funds.

Sincerely yours,

Joseph F. Bouchard

Fellow, blue moon fund
Director, Coastal Virginia Climate Change Adaptation Program

S.L. NUSBAUM Realty Co.
1700 Wells Fargo Center • 440 Monticello Avenue • Norfolk, VA 23510 • (757) 627-8611 • slnusbaum.com

October 1, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant - National Disaster Resilience Competition
Phase II: Letter documenting Direct Financial Commitment of 20 million dollars

Dear Governor McAuliffe:

S.L. Nusbaum Realty Co. is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve resiliency in the Hampton Roads region with Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

As one of the largest commercial real estate services and development firms in the Southeast, our goal is to find the best, most profitable way to develop sustainable real estate projects. Our commercial property interests include ownership of extensive commercial real estate, including shopping centers, office buildings, and mixed use developments. We manage well over 100 apartment communities with approximately 17,000 residential multifamily units. Additionally, we have developed in excess of 6,000 apartment units and over 6,000,000 square feet of retail space.

This letter represents our firm and direct financial commitment of approximately 20 million dollars in capital expenditure for the development of a 126 unit high quality affordable multifamily residential community in the St. Paul's Quadrant of downtown Norfolk to support the CDBG-NDR proposal in the City of Norfolk NDRC target area. This project will be the first development in this area in more than 25 years and represents the initial effort in the revitalization of the St. Pauls' Quadrant as proposed in the CDBG-NDR application. In an effort to demonstrate a measure of environmental resiliency, the development will make use of innovative, on-site storm water mitigation.

Subject to obtaining all governmental approvals, the project is projected to break ground in early 2016. We wholeheartedly support the city's grant effort and hope the city succeeds in the HUD competition for funding.

Sincerely,

Miles B. Leon
President

norfolk redevelopment & HOUSING AUTHORITY

John C. Kownack, *Executive Director*

Commissioners
Barbara Hamm Lee, *Chair*
Donald Musacchio, *Vice Chair*
Alphonso Albert
Rose Arrington
Michael Burnette
Richard Gresham
Robert Soble

October 22, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: Community Development Block Grant - National Disaster Resilience Competition Phase II:
Letter documenting Direct Financial Commitment of $15 million for Grant Application

Dear Governor McAuliffe:

The Norfolk Redevelopment and Housing Authority is pleased to join the Commonwealth of Virginia as a partner in its efforts to improve disaster resiliency in the Hampton Roads region utilizing Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

As part of the grant application, this letter represents our direct financial commitment of $15,000,000 in the form of $7.7 million in low income housing tax credits awarded in 2015 and $7.3 million available from a combination of NRHA capital grant funding and private debt financing. As proposed in the CDBG-NDR application, these funds will increase Virginia's capacity to build resiliency in the Grandy Village area located directly in the City of Norfolk NDRC project target area.

The Grandy Village project, a part of the proposed grant application, includes the demolition of outdated public housing units, and the construction of 70 new apartments. The project also includes the construction of a 1500 sq. ft. community office, dedicated open space, associated infrastructure including storm water measures (i.e., expansion of bio-retention area, manufactured water quality inlets, and grass swales), and a new roadway serving the entire community.

These actions will contribute to Virginia's resiliency by improving storm water management for the Grandy Village community as well as providing new energy efficient modern apartments that will replace obsolete 1950s era public housing. Most importantly, it is anticipated that the storm water mitigation improvements will protect Grandy Village from future flood events.

This project received a low income housing tax credit award from the Virginia Housing and Development Authority on July 1, 2015, and the funds will be available to complete

the work described above within the grant period. This supporting commitment is subject to the award of CDBG-NDR grant funds.

Sincerely yours,

John C. Kownack
Executive Director
Norfolk Development and Housing Authority

Elizabeth River Project
Making restoration a reality.

October 16, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

RE: CBDG - National Disaster Resilience Competition Phase II:
Letter documenting Financial Commitments of $670,000 from Elizabeth River Project

Dear Governor McAuliffe:

The Elizabeth River Project is a community-based non-profit founded in 1993 with the mission to restore the Elizabeth River to the highest practical level of environmental quality through citizen, government and business partnerships. We are pleased to join the Commonwealth of Virginia as a partner in its efforts to improve disaster resiliency in the City of Norfolk utilizing Community Development Block Grant-National Disaster Resilience grant funding.

As part of the grant application, this letter represents our financial commitments after Sept. 2014 of an estimated $670,000 for the following environmental projects in Norfolk's Most Impacted and Distressed area with Unmet Recovery Needs (MID-URN):

1) Direct financial commitments by Elizabeth River Project in the Elizabeth River watershed within the City of Norfolk's overall MID-URN area:
    a) About $75,000 was expended by Elizabeth River Project through a contract with the City of Norfolk to achieve residential best management practices to improve water quality and reduce flooding in the Elizabeth River watershed, working with River Star Homes during the time period (June 2014 – July 2015).
    b) A total of $300,000 was expended on oyster reef restoration in the Lafayette River, June 2015 – Sept. 2015, ($100,000 National Fish & Wildlife Foundation – penalty funds, not federal funds; and $200,000 NOAA Chesapeake Bay Program, federal) to improve water quality and stabilize a more resilient shoreline.
    c) An education event, Elizabeth RIVERFest 2015, was held by Elizabeth River Project at Nauticus in Norfolk at a cost of $40,000 from private sponsors to educate residents about residential best management practices to improve water quality and reduce flooding.
    d) A federal grant from the National Fish and Wildlife Foundation to Elizabeth River Project, through the Innovative Nutrient Reduction Grant program, provided about $50,000 to work with homes and businesses in Norfolk from Sept. 2014 – Oct. 2015 to improve water quality and reduce flooding through their participation in River Star Homes program.

475 Water Street, Suite C103A, Portsmouth, Virginia 23704 757/399-7487 fax 757/397-8377 www.elizabethriver.org

Subtotal: $465,000

2) Direct financial commitments by Elizabeth River Project in the currently proposed CDBG-NDR-assisted project sub-area (Newtown Creek and Ohio Creek watersheds):
   a) An estimated $10,000 was expended from a Bank of America Neighborhood Builders grant from Sept 2014 to Sept. 2015 on community outreach in Chesterfield Heights (Ohio Creek watershed; private funding).
   b) A total of $100,000 is planned for expenditure with construction to begin in March 2016 on a 1-acre oyster reef at Chesterfield Heights (Ohio Creek watershed), federally funded through the National Fish & Wildlife Foundation.
   c) An estimated $10,000 was expended, Sept. 2014- Oct. 2015, to assist River Star Homes in the Ohio Creek watershed with best management practices using a federally funded grant from the National Fish & Wildlife Foundation.
   d) Another estimated $10,000 was expended, Sept. 2014-Oct. 2015, for project management to plan environmental restoration activities in the Eastern Branch including the Ohio Creek watershed and Newton Creek watershed with a capacity-building grant from the Chesapeake Bay Funders Trust (federal).
   e) For environmental education activities, NOAA (federal) funding of about $75,000 was expended Sept. 2014- June 2015 to support student field trips taking place on the Learning Barge at Grandy Village Learning Center, Chesterfield Heights (Ohio Creek watershed).

   Subtotal: $205,000

   TOTAL: $670,000

The proposed grant will represent a vital step forward to improve the environmental resiliency of Norfolk's vulnerable coast. The Elizabeth River Project (www.elizabethriver.org) has two decades of experience with successful construction of on-the-ground environmental improvement projects. We look forward to serving as a key partner during implementation of this grant.

Sincerely,

Marjorie Mayfield Jackson
Executive Director

PURPOSE
BUILT
COMMUNITIES

Growing Hope,
Transforming Lives

October 23, 2015

The Honorable Terence R. McAuliffe
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219
July 10, 2012

RE: Community Development Block Grant-National Disaster Resilience Competition Phase II: Letter documenting Supporting consulting and technical commitment for the Grant Application

Dear Governor McAuliffe,

On behalf of Purpose Built Communities, it is my honor to support the Commonwealth of Virginia's application for the Community Development Block Grant-National Disaster Resilience (CDBG-NDR) grant funding.

Purpose Built Communities is a non-profit consulting group that helps local leaders implement a comprehensive neighborhood revitalization model that will break the cycle of poverty for low income families while creating healthy and sustainable neighborhoods. Formed in 2009, Purpose Built's experience is based on the revitalization of the East Lake neighborhood in Atlanta, Georgia and was created to respond to the demand from leaders around the country who visited East Lake, and understood its power and potential for creating place-based pathways to prosperity but needed help planning and implementing this cross-sector, long term approach to neighborhood revitalization. Our model is comprised of five core elements: high-quality mixed-income housing; an excellent cradle-through-college education pipeline; community wellness facilities and support services; and a dedicated nonprofit "community quarterback" to guide these strategies within a clearly delineated neighborhood. Purpose Built and the East Lake neighborhood have been recognized as uniquely successful by the White House Office of Neighborhood Revitalization, the former Secretaries of the Departments of Housing and Urban Development and Education, Ben Bernanke, Warren Buffett and others.

As a part of the grant application, this letter represents our supporting commitment to provide the City of Norfolk, along with civic and business leaders who will comprise the Community Quarterback with consulting services and technical assistance. Multiple sites, including the St. Paul's area (Newton's Creek Watershed project area), will be evaluated for revitalization. Our consultant services are valued at an estimated $250,000 over the next 5 years. The City of Norfolk has made great progress in planning their neighborhood revitalization including unifying key partnerships with public and private sectors.

3445 Peachtree Road NE, Suite 175 Atlanta, Georgia 30326 | 404.591.1400 | purposebuiltcommunities.org

The City of Norfolk, business and civic leaders have the capacity to fully realize the City's vision by leveraging federal investments, mobilizing the support of the community, creating sustainable partnerships and learning from the East Lake experience. I am confident that the City of Norfolk will be effective in helping families break the cycle of inter-generational poverty in areas like the St. Paul's area located directly in the Newton's Creek Watershed NDRC project target area by creating a sustainable community focused on an excellent education pipeline.

A Community Development Block Grant will significantly accelerate the ability to implement the successful neighborhood revitalization of this community.

Please feel free to contact me with any questions.

Respectfully,

Carol R. Naughton

Carol Naughton
President

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

OCT 27 2015

Executive Office

The Honorable Terence R. McAuliffe
Governor of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, VA 23219

Dear Governor McAuliffe:

I am responding to the Commonwealth's request for information on existing programs and projects within the Norfolk District addressing coastal resiliency. As you are aware, the Norfolk District is working with the Commonwealth and local municipalities to survey and plan for impacts from coastal storms and sea level rise. Appropriations amounts or cost estimates are provided if available. Specific projects by City include:

City of Norfolk: Norfolk Comprehensive Flood Risk Management Study Appropriations: FY16 - $500k - Future appropriations dependent on study outcome. Willoughby Spit Coastal Storm Risk Management Appropriations (Hurricane Sandy Funded): FY14 and FY15 - $25M. The Hague Section 205 Flood Risk Management Study, total project cost – to be determined (TBD). Oyster and shoreline restoration through Section 22 Program funding: approximately $250K. ODU Wetland Restoration Section 206 project completed in 2011 – constructed cost of $3M.

City of Newport News: Living shoreline conceptual designs through Section 22 Program, total project cost - TBD. Newmarket Creek Hydraulics and Hydrology study in Newport News and Hampton through the Flood Plain Management Services Program, total cost: approximately $120K.

I hope that this information is helpful for you and addresses your needs. If you have any questions or need any additional information, please feel free to contact me at (757) 201-7601, or Mr. Gregory Steele, my Chief, Water Resources Division, at (757) 201-7764.

Sincerely,

J E Kelly

Jason E. Kelly, PMP
Colonel, U.S. Army
Commanding

ATTACHMENT B

SOURCES AND USES

COMMONWEALTH OF VIRGINIA

AttBLeverageDocumentation.pdf

Virginia ThRIVe Budget
Master and Projects

	Chesapeake South Hill Buyout		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations	$445,000		
Legal - titles/closing/Appraisals	$320,000		
R/W City Staff - Monitoring & Accounting	$122,000		
Staffing			
Execution of Project Contract(s)			
Contract Monitoring			
Construction Completion			
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$887,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households	$660,000		
Renter-Occupied Households	$975,000		
Relocation Specialist	$190,000		
Subtotal	**$1,825,000**	**$0**	
ACQUISITION (Land/Improvements	**$6,600,188**		
but not any easements)	$6,600,188	$0	
CLEARANCE & DEMOLITION	**$350,000**		
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake South Hill Buyout		
	HUD-NDRC	**NON-NDRC**	**NON-NDRC**
BUDGET LINE ITEM	**BUDGET**	**BUDGET**	**SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal			
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake South Hill Buyout		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Construction/Improvements			
Subtotal			
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$9,662,188**	**$0**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - MicroMitigation		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)			
Contract Monitoring			
Construction Completion			
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$0**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements			
but not any easements)			
CLEARANCE & DEMOLITION			
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants	$400,000		
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$400,000**	**$0**	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - MicroMitigation		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal			
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - MicroMitigation		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal			
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$400,000**	**$0**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Fernwood Farms Buyout		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations	$425,000		
Legal - titles/closing/Appraisals	$425,000		
R/W City Staff - Monitoring & Accounting	$160,000		
Staffing	$0		
Execution of Project Contract(s)	$0		
Contract Monitoring	$0		
Construction Completion	$0		
Achievement of Benefits	$0		
Administrative Project Closeout			
Subtotal	**$1,010,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households	$4,650,000		
Renter-Occupied Households	$540,000		
Relocation Specialist	$400,000		
Subtotal	**$5,590,000**	**$0**	
ACQUISITION (Land/Improvements	**$25,046,675**		
but not any easements)	$25,046,675	$0	
CLEARANCE & DEMOLITION	**$800,000**		
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Fernwood Farms Buyout		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal			
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Fernwood Farms Buyout		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal			
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$32,446,675**	**$0**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Crest Harbor Buyout		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations	$390,000		
Legal - titles/closing/Appraisals	$390,000		
R/W City Staff - Monitoring & Accounting	$160,000		
Staffing	$0		
Execution of Project Contract(s)	$0		
Contract Monitoring	$0		
Construction Completion	$0		
Achievement of Benefits	$0		
Administrative Project Closeout			
Subtotal	**$940,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households	$4,650,000		
Renter-Occupied Households	$450,000		
Relocation Specialist	$390,000		
Subtotal	**$5,490,000**	**$0**	
ACQUISITION (Land/Improvements	**$18,195,975**		
but not any easements)	$18,195,975	$0	
CLEARANCE & DEMOLITION	**$770,000**		
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Crest Harbor Buyout		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal			
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake - Crest Harbor Buyout		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal			
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$25,395,975**	**$0**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Bainbridge Elevation		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract	$50,000		
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)	$100,000		
Contract Monitoring	$100,000		
Construction Completion	$1,000,000		
Achievement of Benefits			
Administrative Project Closeout	$250,000		
Subtotal	**$1,500,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements	**$5,150,000**	**$0**	
but not any easements)	$5,150,000	$0	
CLEARANCE & DEMOLITION	**$250,000**	**$0**	
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Bainbridge Elevation		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$800,000		
Inspection	$500,000		
Acquisition (Easements Only)	$600,000		
Temporary Relocation	$400,000		
Long-Term O/M		$500,000	City of Chesapeake
Construction/Improvements	$6,000,000	$20,000,000	City of Chesapeake
Subtotal	**$8,300,000**	**$20,500,000**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	**$0**	**$0**	
STREETS			
Architect/Engineer/Design	$1,500,000		
Inspection	$1,100,000		
Acquisition (Easements Only)	**$500,000**		
Temporary Relocation	$500,000		

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Bainbridge Elevation		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements	$12,500,000		
Subtotal	**$16,100,000**	**$0**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design	$2,000,000		
Inspection	$1,000,000		
Acquisition (Easements Only)	**$0**		
Temporary Relocation	$0		
Construction/Improvements	$15,000,000	$800,000	City of Chesapeake
Subtotal	$18,000,000	$800,000	
Coastal Resliency Accelerator			
Subtotal	**$0**	**$0**	
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$49,300,000**	**$21,300,000**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Freeman Overpass		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)			
Contract Monitoring	$200,000		
Construction Completion	$550,000		
Achievement of Benefits			
Administrative Project Closeout	$100,000		
Subtotal	**$850,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements		**$0**	
but not any easements)	$0	$0	
CLEARANCE & DEMOLITION	**$250,000**	**$0**	
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Freeman Overpass		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$200,000		
Inspection	$100,000		
Acquisition (Easements Only)	$900,000		
Temporary Relocation			
Long-Term O/M		$200,000	City of Chesapeake
Construction/Improvements	$2,000,000		
Subtotal	**$3,200,000**	**$200,000**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	**$0**	**$0**	
STREETS			
Architect/Engineer/Design	$1,500,000		
Inspection	$1,100,000		
Acquisition (Easements Only)	**$3,000,000**		
Temporary Relocation	$2,000,000		

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Freeman Overpass		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements	$13,600,000	$18,000,000	City of Chesapeake
Subtotal	**$21,200,000**	**$18,000,000**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design	$0		
Inspection	$0		
Acquisition (Easements Only)	**$0**		
Temporary Relocation	$0		
Construction/Improvements	$0	$1,500,000	City of Chesapeake
Subtotal	$0	$1,500,000	
Coastal Resliency Accelerator			
Subtotal	**$0**	**$0**	
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$25,500,000**	**$19,700,000**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Living Shoreline		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)			
Contract Monitoring			
Construction Completion			
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$0**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements	**$0**	**$0**	
but not any easements)	$0	$0	
CLEARANCE & DEMOLITION	**$0**	**$0**	
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Living Shoreline		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$1,313,105		
Inspection	$1,969,657		
Acquisition (Easements Only)	$0		
Temporary Relocation	$0		
Long-Term O/M		$160,000	City of Chesapeake
Construction/Improvements	$13,131,050		
Subtotal	**$16,413,812**	**$160,000**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	**$0**	**$0**	
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Living Shoreline		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal	**$0**	**$0**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	$0	$0	
Coastal Resliency Accelerator			
Subtotal	**$0**	**$0**	
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$16,413,812**	**$160,000**	

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Stormwater Biofilter		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)			
Contract Monitoring			
Construction Completion			
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$0**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements	**$0**	**$0**	
but not any easements)	$0	$0	
CLEARANCE & DEMOLITION	**$0**	**$0**	
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Stormwater Biofilter		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$123,790		
Inspection	$185,685		
Acquisition (Easements Only)	$0		
Temporary Relocation	$0		
Long-Term O/M		$80,000	City of Chesapeake
Construction/Improvements	$1,237,900		
Subtotal	**$1,547,375**	**$80,000**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	**$0**	**$0**	
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Chesapeake Stormwater Biofilter		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal	**$0**	**$0**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	$0	$0	
Coastal Resliency Accelerator			
Subtotal	**$0**	**$0**	
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$1,547,375**	**$80,000**	

Virginia ThRIVe Budget
Master and Projects

	Norfolk -Ohio Creek Watershed		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract	$50,000		
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)	$200,000		
Contract Monitoring	$1,115,000		
Construction Completion	$1,000,000		
Achievement of Benefits	$800,000		
Administrative Project Closeout	$200,000		
Subtotal	**$3,365,000**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households		$9,700,000	Norfolk RHA - Grandy VI (Construction of 70 new apartments)
Relocation Specialist			
Subtotal	**$0**	**$9,700,000**	
ACQUISITION (Land/Improvements	$3,300,000	$0	
but not any easements)	**$3,300,000**	$0	
CLEARANCE & DEMOLITION	$0	$0	
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	$0	$0	
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Norfolk -Ohio Creek Watershed		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition		$350,000	Norfolk RHA - Grandy Phase VI (Demolition)
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$350,000**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$7,700,000		
Inspection	$600,000		
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements	$31,900,000	$5,874,552	Norfolk RHA - Grandy Phase VI (storm water improvements)/Lifecycle O&M
Subtotal	**$40,200,000**	**$5,874,552**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	**$0**	**$0**	
STREETS			
Architect/Engineer/Design	$700,000		
Inspection	$110,000		
Acquisition (Easements Only)	$0		
Temporary Relocation	$0		

Virginia ThRIVe Budget
Master and Projects

	Norfolk -Ohio Creek Watershed		
	HUD-NDRC	**NON-NDRC**	**NON-NDRC**
BUDGET LINE ITEM	**BUDGET**	**BUDGET**	**SOURCE**
Construction/Improvements	$3,100,000	$3,616,000	Norfolk RHA - Grandy Phase VI (internal roads, parking and infrastracture) /Lifecycle O&M
Subtotal	**$3,910,000**	**$3,616,000**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design	$12,340,000		
Inspection	$1,000,000		
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements	$51,430,000	$27,623,200	City; Lifecycle (
Subtotal	**$64,770,000**	**$27,623,200**	
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below		**$340,138,564**	
TOTAL	**$115,545,000**	**$387,302,316**	

Virginia ThRiVe Budget
Master and Projects

	Norfolk - Newtons Creek Watershed		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract	$ 50,000	$ -	
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)	$ 200,000	$ -	
Contract Monitoring	$ 2,872,000	$ -	
Construction Completion	$ 1,500,000	$ -	
Achievement of Benefits	$ 800,000	$ -	
Administrative Project Closeout	$ 200,000	$ -	
Subtotal	**$ 5,622,000**	**$ -**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$ -**	**$ -**	
ACQUISITION (Land/Improvements	$ 6,710,000		
but not any easements)	$ 6,710,000	$ -	
CLEARANCE & DEMOLITION	$ 4,400,000		
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Norfolk - Newtons Creek Watershed		
	HUD-NDRC	NON-NDRC	NON-NDRC
BUDGET LINE ITEM	BUDGET	BUDGET	SOURCE
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	$ -	$ -	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$ 7,410,000		
Inspection	$ 620,000		
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M		$ 880,000	City O&M
Construction/Improvements	$ 30,860,000		
Subtotal	**$ 38,890,000**	**$ 880,000**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design	$ 3,710,000		
Inspection	$ 310,000		
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Norfolk - Newtons Creek Watershed		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements	$ 15,440,000		
Subtotal	**$ 19,460,000**	**$ -**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design	$ 21,520,000		
Inspection	$ 1,780,000		
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements	$ 89,650,000	$ 28,553,800	City; Lifecycle O&M
Subtotal	$ 112,950,000	$ 28,553,800	
Coastal Resliency Accelerator	$ 5,000,000	$ 7,000,000	Comm. of VA; Foundation Support, Universities and Colleges
Subtotal	$ 5,000,000	$ 7,000,000	
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$ 193,032,000**	**$ 36,433,800**	

City of Norfolk - Additional Documentation

Direct Leverage

***Directly included in the current budget as part of the proposed projects (already included in budget)**	Direct Leverage	Source
Lifecycle O&M	$ 57,057,000	City of Norfolk
Grandy Village	$ 19,540,552	NHRA
Coastal Reslience Accelerator	$ 7,000,000	Comm. of VA; Foundation Support, Universities and Colleges
	$83,597,552	

Leveraged funds expended (since Sept 2014) or to be expended directly in the CDBG-NDR-assisted project sub-area. This leverage has/will address(ed) unmet needs and accelerate the realization/enhance the outcome of the proposed CDBG-NDR-assisted projects in Newton's Creek and Ohio Creek Watershed sub-area in the City of Norfolk (since Sept. 2014)	Direct Leverage	Source
Newton's Creek Watershed: Development of a 126 affordable housing units (construction begins in 2016)	$20,000,000	S.L. Nusbaum Realty
Ohio Creek Watershed: Environmental education activities (Sept. 2014 - June 2015)	$75,000	Elizabeth River Project
Ohio Creek Watershed: Environmental restoration planning and capacity building (Sept. 2014 - Oct. 2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Assistance to River Start Homes with best management practices (Sept. 2014 - Oct.2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Construction of oyster reef to restore shoreline (March 2016)	$100,000	Elizabeth River Project
Ohio Creek Waterhed: Community outreach - Neighborhood Builders (Sept. 2014 - Sept 2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Kimball Terrace Culvert Replacement (completion 11/17/2014)	$1,200,000	City of Norfolk
Ohio Creek Watershed: Installation of Tide Gauge at Grandy Village (FY2016-2017)	$50,000	City of Norfolk
Ohio Creek Watershed: Line power to Ohio Creek flood control project (FY2017)	$150,000	City of Norfolk
Ohio Creek Watershed: Westminster road way replacement (completed 10/1/2015)	$225,000	City of Norfolk
Ohio Creek Watershed: Spartan Village acquisition - removal from the floodplain (FY2015-FY2020)	$1,200,000	City of Norfolk
TOTAL	**$23,030,000**	

City of Norfolk - Additional Documentation
Direct Leverage

Leveraged funds that has/will address(ed) unmet recovery needs in the remainder of the qualified MID-URN target area outside of the proposed CDBG-NDR-assisted project sub-area in the City of Norfolk (since Sept. 2014)		
Beach Nourishment along the shoreline between Little Creek Inlet and Willoughby Spit	$12,900,000	$18.4 million includes - City of Norfolk ($5.5 million - (*included in Storm Water Utility capital projects funds below)) and U.S. Army Corps of Engineers ($12.9 million)
Eight shoreline restoration projects and development of a green infrastructures training program in Lafayette River Watershed	$4,382,652	$4,640,000 includes - City of Norfolk ($257,343 - (*included in Storm Water Utility capital projects funds below)) and National Fish and Wildlife Foundation Sandy Grant ($4,382,652)
Mayor's Poverty Commission funds including Affordable Housing Trust Fund	$3,000,000	City of Norfolk
Environmental Sustainability capital projects funds	$16,341,667	City of Norfolk
Safe, Healthy and Inclusive Communities capital projects funds	$19,841,667	City of Norfolk
Storm Water Utility capital projects funds*	$30,078,867	City of Norfolk
Wastewater Utility capital projects funds	$116,166,667	City of Norfolk
Water Utility capital projects funds	$85,625,000	City of Norfolk
Stormwater Utility Operating Budget	$28,307,044	City of Norfolk
Residential best management practices to reduce flooding in the Elizabeth River Watershed	$75,000	Elizabeth River Project
Oyster reef restoration to stabilize shoreline to reduce flooding in the Lafayette River	$300,000	Elizabeth River Project
Community outreach to educate residents about best managmeent practices to reduce flooding	$40,000	Elizabeth River Project
Flood reduction through Rvier Star Homes program	$50,000	Elizabeth River Project
TOTAL	$317,108,564	
Total Direct Leverage; does not include $83,597,522 sourced in other documentation	**$340,138,564**	

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
[redacted]					
Ohio Creek Watershed	$ 112,180,000	$ 112,180,000	$ -		
Flood Walls, Berms and Living Shoreline	$ 7,101,600	$ 7,101,600	$ -		
370 LF of Flood Wall Eastern Road	$ 310,800	$ 310,800	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
810 LF of Flood Wall Grandy Village Shoreline	$ 2,235,600	$ 2,235,600	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
940 LF of Flood Wall Kimball Terrace	$ 2,707,200	$ 2,707,200	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
2200 LF of Chesterfield Heights Living Shoreline	$ 1,848,000	$ 1,848,000	$ -	**Kimley Horn/Moffat & Nichol Report & ERP proposal**	**9/22/2015**
Road Raise	$ 35,172,000	$ 35,172,000	$ -		
80000 CY of Fill (Road Raise and Berm)	$ 2,880,000	$ 2,880,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
54000 TON of Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	$ 2,592,000	$ 2,592,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
2900 LF of Road Construction (Demolition, Pavement, Storm)	$ 3,480,000	$ 3,480,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
13000 LF of Neighborhood Street Retrofit (Permeable Pavement and Bioretention)	$ 23,400,000	$ 23,400,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
8400 SF of Kimball Terrace Bridge Construction	$ 2,520,000	$ 2,520,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Campostella Intersection Improvements	$ 300,000	$ 300,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Stormwater Management	$ 26,624,000	$ 26,624,000	$ -		
River Star Homes Parcel Level Incentive Program	$ 100,000	$ 100,000	$ -	**City of Norfolk**	**9/24/2015**
Large Tide Gate (Ohio Creek Watershed)	$ 600,000	$ 600,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
70000 TON of Excavation and Disposal of Soil (Detention Basin)	$ 3,360,000	$ 3,360,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
3 Medium Tide Control Devices (Automated Sluice)	$ 720,000	$ 720,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
4 Small Tide Control Devices	$ 384,000	$ 384,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
800 LF of 6'x5' Box Culvert for Underground Detention	$ 1,440,000	$ 1,440,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Pump Station Ohio Creek (7-48" Pumps.)	$ 13,420,000	$ 13,420,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Pump Station Kimball Wetlands (2-30" Pumps)	$ 2,400,000	$ 2,400,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Pump Station E. Chesterfield (2-30" Pumps)	$ 2,400,000	$ 2,400,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Pump Station W. Chesterfield (1-24" Pumps)	$ 1,200,000	$ 1,200,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Pump Station Grandy Village (1-8" Pumps)	$ 600,000	$ 600,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Landscape Amenities	$ 5,510,656	$ 5,510,656	$ -		
11.5 AC of Waterfront Parks	$ 4,010,999	$ 4,010,999	$ -	**RTKL/Arcadis**	**9/28/2015**
2.9 AC of Sports Fields and Retention	$ 793,034	$ 793,034	$ -	**RTKL/Arcadis**	**9/28/2015**
7,200 SF of Rain Gardens	$ 127,433	$ 127,433	$ -	**RTKL/Arcadis**	**9/28/2015**
15.1 AC of Constructed Wetlands	$ 579,191	$ 579,191	$ -	**RTKL/Arcadis**	**9/28/2015**
Permitting and Other	$ 7,177,500	$ 7,177,500	$ -		
NEPA Compliance (Assume EIS)	$ 870,000	$ 870,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
38000 SF of Tidal Wetlands Mitigation Costs	$ 570,000	$ 570,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
55000 SF of Royalties to VMRC for conversion of subtital habitat to wetlands	$ 27,500	$ 27,500	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Joint Permit Application (JPA) Coordination	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Construction Dewatering and Temporary Containment	$ 250,000	$ 250,000	$ -	**Arcadis**	**9/28/2015**
Land Acquisition	$ 3,000,000	$ 3,000,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Adjustments to Public Utilities	$ 2,400,000	$ 2,400,000		**Kimley-Horn/Arcadis**	**9/28/2015**
Construction Risk Allowance - Ohio Creek Watershed	$ 8,159,000	$ 8,159,000	$ -		

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
Construction Contingency based on Conceptual Design	$ 8,159,000	$ 8,159,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Design and Support Costs - Ohio Creek Watershed	$ 22,437,000	$ 22,437,000	$ -		
Design Services, Survey & Geotechnical Measurements, Permitting, and Construction Administration (Design Oversight)	$ 22,437,000	$ 22,437,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Newton's Creek Watershed	$ 194,410,000	$ 187,410,000	$ 7,000,000		
Flood Walls - South Brambleton	$ 4,224,000	$ 4,224,000	$ -		
700 LF of Flood Wall I-264 Ramp	$ 1,344,000	$ 1,344,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
1500 LF of Flood Wall Dominion Property (Newton Creek East)	$ 2,880,000	$ 2,880,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Road Raise & Shoreline Berm - South Brambleton	$ 4,668,000	$ 4,668,000	$ -		
15000 CY of Fill (Road Raise and Berm)	$ 540,000	$ 540,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
11000 TON of Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	$ 528,000	$ 528,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
3000 LF of Road Construction (Demo, Pavement, Storm)	$ 3,600,000	$ 3,600,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Stormwater Management - South Brambleton	$ 23,214,400	$ 23,214,400	$ -		
Large Tide Gate (Newton's Creek Watershed)	$ 600,000	$ 600,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
115000 TON of Excavation and Disposal of Soil (Detention Basin)	$ 5,520,000	$ 5,520,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Small Tide Control Device	$ 96,000	$ 96,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
800 LF of 6'x5' Box Culvert (Detention Connection)	$ 1,440,000	$ 1,440,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
540 LF of 2- 120"x72" Box Culverts with Jack & Bore (St. Paul's Quadrant Connection)	$ 2,138,400	$ 2,138,400	$ -	**Arcadis**	**9/28/2015**

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
Pump Station Newton Creek (7-48" Pumps)	$ 13,420,000	$ 13,420,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Landscape Amenities - South Brambleton	$ 410,420	$ 410,420	$ -		
10.7 AC of Constructed Wetlands	$ 410,420	$ 410,420	$ -	**RTKL/Arcadis**	**9/28/2015**
Permitting and Other - South Brambleton	$ 3,270,000	$ 3,270,000	$ -		
NEPA Compliance (Assume EIS)	$ 870,000	$ 870,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
2000 SF of Tidal Wetlands Mitigation Costs	$ 30,000	$ 30,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Joint Permit Application (JPA) Coordination	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Construction Dewatering and Temporary Containment	$ 250,000	$ 250,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Land Acquisition	$ 2,000,000	$ 2,000,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Adjustments to Public Utilities	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Flood Walls and Living Shoreline - Harbor Park	$ 42,540,000	$ 42,540,000	$ -		
Harbor Park Wall	$ 40,200,000	$ 40,200,000	$ -	**Arcadis**	**9/28/2015**
East Water Street Wall	$ 600,000	$ 600,000	$ -	**Arcadis**	**9/28/2015**
East Water Street - I-264 Wall	$ 300,000	$ 300,000	$ -	**Arcadis**	**9/28/2015**
1200 LF of Harbor Park Living Shore Line	$ 1,440,000	$ 1,440,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Road Raise and Retrofit - Harbor Park	$ 1,020,000	$ 1,020,000	$ -		
Norfolk Southern Berm	$ 900,000	$ 900,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
500 LF of East Main Street Curb	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
1250 TON of Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Stormwater Management - Harbor Park	$ 9,425,000	$ 9,425,000	$ -		
East Water Street Gate	$ 600,000	$ 600,000		**Kimley-Horn/Arcadis**	**9/28/2015**
176500 TON of Excavation and Disposal of Soil (Main Canal and Wadis)	$ 8,825,000	$ 8,825,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Landscape Amenities - Harbor Park	$ 6,355,206	$ 6,355,206	$ -		

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
10.8 AC of Waterfront Promenade	$ 6,355,206	$ 6,355,206		**RTKL/Arcadis**	**9/28/2015**
Permitting and Other - Harbor Park	$ 1,052,500	$ 1,052,500	$ -		
NEPA Compliance (Assume EIS)	$ 870,000	$ 870,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
4000 SF of Tidal Wetlands Mitigation Costs	$ 60,000	$ 60,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
25000 SF of Royalties to VMRC for conversion of subtital habitat to wetlands	$ 62,500	$ 62,500	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Joint Permit Application (JPA) Coordination	$ 60,000	$ 60,000		**Kimley-Horn/Arcadis**	**9/28/2015**
Demolition and Gray Infrastructure - St. Paul's Area	$ 18,040,000	$ 18,040,000	$ -		
Building Demolition, Relocation, Counseling, & Vacancy Management	$ 4,000,000	$ 4,000,000	$ -	**NHRA**	
5850 LF of Road Construction for Re-Development (Pavement, Storm, Sanitary, Water, Wadis)	$ 14,040,000	$ 14,040,000	$ -	**Arcadis**	**9/28/2015**
Flood Walls and Living Shoreline - St. Paul's Area	$ 1,074,000	$ 1,074,000	$ -		
250 LF of East City Hall Gate Wall	$ 360,000	$ 360,000	$ -	**Arcadis**	**9/28/2015**
850 LF of Market Street Wall	$ 714,000	$ 714,000	$ -	**Arcadis**	**9/28/2015**
Road Raise and Retrofit - St. Paul's Area	$ 380,760	$ 380,760	$ -		
330 LF of Mariner Street Curb	$ 39,600	$ 39,600	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
310 CY of Fill (Road Raise - Charlotte Street)	$ 11,160	$ 11,160	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
275 LF of Road Construction (Charlotte Street Demolition, Pavement, Storm)	$ 330,000	$ 330,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Stormwater Management - St. Paul's Area	$ 1,200,000	$ 1,200,000	$ -		
East City Hall Gate	$ 1,200,000	$ 1,200,000	$ -	**Kimley-Horn/Arcadis**	**9/28/2015**
Landscape Amenities - St. Paul's Area	$ 10,326,358	$ 10,326,358	$ -		
44,400 SF of Rain Gardens	$ 785,836	$ 785,836	$ -	**RTKL/Arcadis**	**9/28/2015**
11.7 AC of Manicured Parks	$ 4,080,755	$ 4,080,755	$ -	**RTKL/Arcadis**	**9/28/2015**
44.2 AC of Constructed Wetlands	$ 3,850,000	$ 3,850,000	$ -	**RTKL/Arcadis**	**9/28/2015**

Norfolk Derivation of Costs

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
5 AC of Water Street Park	**$ 1,609,768**	**$ 1,609,768**	**$ -**	**RTKL/Arcadis**	**9/28/2015**
Permitting and Other - St. Paul's Area	**$ 16,100,000**	**$ 9,100,000**	**$ 7,000,000**		
Resiliency Campus	**$ 12,000,000**	**$ 5,000,000**	**$ 7,000,000**	**City of Norfolk - HR Thrive**	**9/2/2015**
Land Acquisition	**$ 4,100,000**	**$ 4,100,000**	**$ -**	**Kimley-Horn/Arcadis**	**9/28/2015**
Construction Risk Allowance - Newton's Creek Watershed	**$ 13,630,000**	**$ 13,630,000**	**$ -**		
Construction Contingency based on Conceptual Design	**$ 13,630,000**	**$ 13,630,000**	**$ -**	**Kimley-Horn/Arcadis**	**9/28/2015**
Design and Support Costs - Newton's Creek Watershed	**$ 37,480,000**	**$ 37,480,000**	**$ -**		
Design Services, Survey & Geotechnical Measurements, Permitting, and Construction	**$ 37,480,000**	**$ 37,480,000**	**$ -**	**Kimley-Horn/Arcadis**	**9/28/2015**

Opinion of Probable Cost: Norfolk Coastal Adaptation and Community Transformation Plan

Notes:
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Group/Item	Subtotal	Group Total
Ohio Creek Watershed - Chesterfield Heights and Grandy Village		
Flood Walls and Living Shoreline		$7,101,600
Road Raise		$35,172,000
Stormwater Management		$26,624,000
Landscape Elements		$5,510,656
Other Project Requirements		$7,177,500
Ohio Creek Watershed Cost of Work Subtotal		$81,586,000
10% Construction Risk Allowance		$8,159,000
25% Design and Support Cost		$22,436,000
Ohio Creek Watershed Cost of Work Total		$112,180,000
Newton's Creek Watershed - South Brambleton, Harbor Park & St. Paul's Area		
Flood Walls and Living Shore Line		$47,838,000
South Brambleton	$4,224,000	
Harbor Park	$42,540,000	
St. Paul's Area	$1,074,000	
Road Raise and Retrofit		$6,068,760
South Brambleton	$4,668,000	
Harbor Park	$1,020,000	
St. Paul's Area	$380,760	
Stormwater Management		$33,839,400
South Brambleton	$23,214,400	
Harbor Park	$600,000	
St. Paul's Area	$10,025,000	
Landscape Elements		$17,091,984
South Brambleton	$410,420	
Harbor Park	$6,355,206	
St. Paul's Area	$10,326,358	
Demolition & Gray Infrastructure		$18,040,000
South Brambleton	$0	
Harbor Park	$0	
St. Paul's Area	$18,040,000	
Other Project Requirements		$13,422,500
South Brambleton	$3,270,000	
Harbor Park	$1,052,500	
St. Paul's Area	$9,100,000	
Newton's Creek Watershed Cost of Work Subtotal		$136,301,000
10% Construction Risk Allowance		$13,630,000
25% Design and Support Costs		$37,480,000
Newton's Creek Watershed Cost of Work Total		$187,410,000
Total Cost of Work		$299,590,000
O&M Total Annual Cost (See O&M Spreadsheet)		$1,398,950
Project Cycle End Year		2065

Opinion of Probable Cost:
Chesterfield Heights & Grandy Village (Ohio Creek Watershed)

Notes:
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Group/Item	Quantity	Unit	Unit Price	Item total	Group Total
Chesterfield Heights & Grandy Village					
Flood Walls and Living Shoreline					
Flood Wall Eastern Road	370	LF	$840	$310,800	
Flood Wall Grandy Village Shoreline	810	LF	$2,760	$2,235,600	
Flood Wall Kimball Terrace	940	LF	$2,880	$2,707,200	
Chesterfield Heights Living Shoreline	2200	LF	$840	$1,848,000	
					$7,101,600
Road Raise (East End,Strathmore, Kimball Terrace), Retrofit (Westminster, Victoria, Stanhope, Kimball Terrace, Marlboro, Chesterfield), and Shoreline Berm					
Fill (Road Raise and Berm)	80,000	CY	$36	$2,880,000	
Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	54,000	TON	$48	$2,592,000	
Road Construction (Demolition, Pavement, Storm)	2,900	LF	$1,200	$3,480,000	
Neighborhood Street Retrofit (Permeable Pavement and Bioretention)	13,000	LF	$1,800	$23,400,000	
Kimball Terrace Bridge Construction	8,400	SF	$300	$2,520,000	
Campostella Intersection Improvements	1	EA	$300,000	$300,000	
					$35,172,000
Stormwater Management					
River Star Homes Parcel Level Incentive Program	1	EA	$100,000	$100,000	
Large Tide Gate (Ohio Creek Watershed)	1	EA	$600,000	$600,000	
Excavation and Disposal of Soil (Detention Basin)	70,000	TON	$48	$3,360,000	
Medium Tide Control Devices (Automated Sluice)	3	EA	$240,000	$720,000	
Small Tide Control Devices	4	EA	$96,000	$384,000	
6'x5' Box Culvert for Underground Detention	800	LF	$1,800	$1,440,000	
Pump Station Ohio Creek (7-48" Pumps.)	1	EA	$13,420,000	$13,420,000	
Pump Station Kimball Wetlands (2-30" Pumps)	1	EA	$2,400,000	$2,400,000	
Pump Station E. Chesterfield (2-30" Pumps)	1	EA	$2,400,000	$2,400,000	
Pump Station W. Chesterfield (1-24" Pumps)	1	EA	$1,200,000	$1,200,000	
Pump Station Grandy Village (1-8" Pumps)	1	EA	$600,000	$600,000	
					$26,624,000
Landscape Elements					
11.5 AC of Waterfront Parks	1	EA	$4,010,999	$4,010,999	
2.9 AC of Sports Fields and Retention	1	EA	$793,034	$793,034	
7,200 SF of Rain Gardens	1	EA	$127,433	$127,433	
15.1 AC of Constructed Wetlands	1	EA	$579,191	$579,191	
					$5,510,656
Other Items					
NEPA Compliance (Assume EIS)	1	EA	$870,000	$870,000	
Tidal Wetlands Mitigation Costs	38,000	SF	$15	$570,000	
Royalties to VMRC for conversion of subtital habitat to wetlands	55,000	SF	$0.50	$27,500	
Joint Permit Application (JPA) Coordination	1	EA	$60,000.00	$60,000	
Construction Dewatering and Temporary Containment	1	EA	$250,000	$250,000	
Land Acquisition	1	EA	$3,000,000	$3,000,000	
Adjustments to Public Utilities	1	EA	$2,400,000	$2,400,000	
					$7,177,500
				Cost of Work Subtotal	$81,590,000
				10% Construction Risk Allowance	$8,159,000
				25% Design and Support Cost	$22,437,250
				Cost of Work Total	$112,190,000
				Annual O&M	$730,000

Opinion of Probable Cost:
South Brambleton (Newton Creek's Watershed Neighborhood 1)

Notes:
The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Group/Item	Quantity	Unit	Unit Price	Item total	Group Total
South Brambleton					
Flood Walls					
Flood Wall I-264 Ramp	700	LF	$1,920	$1,344,000	
Flood Wall Dominion Property (Newton Creek East)	1500	LF	$1,920	$2,880,000	
					$4,224,000
Road Raise (Reeves) & Shoreline Berm					
Fill (Road Raise and Berm)	15,000	CY	$36	$540,000	
Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	11,000	TON	$48	$528,000	
Road Construction (Demo, Pavement, Storm)	3,000	LF	$1,200	$3,600,000	
					$4,668,000
Stormwater Management					
Large Tide Gate (Newton's Creek Watershed)	1	EA	$600,000	$600,000	
Excavation and Disposal of Soil (Detention Basin)	115,000	TON	$48	$5,520,000	
Small Tide Control Device	1	EA	$96,000	$96,000	
6'x5' Box Culvert (Detention Connection)	800	LF	$1,800	$1,440,000	
2- 120"x72" Box Culverts with Jack & Bore (St. Paul's Quadrant Connection)	540	LF	$3,960	$2,138,400	
Pump Station Newton Creek (7-48" Pumps)	1	EA	$13,420,000	$13,420,000	
					$23,214,400
Landscape Elements					
10.7 AC of Constructed Wetlands	1	EA	$410,420	$410,420	
					$410,420
Other Items					
NEPA Compliance (Assume EIS)	1	EA	$870,000	$870,000	
Tidal Wetlands Mitigation Costs	2,000	SF	$15	$30,000	
Joint Permit Application (JPA) Coordination	1	EA	$60,000	$60,000	
Construction Dewatering and Temporary Containment	1	EA	$250,000	$250,000	
Land Acquisition	1	EA	$60,000	$60,000	
Adjustments to Public Utilities	1	EA	$2,000,000	$2,000,000	
					$3,270,000
				Cost of Work Subtotal	$35,790,000
				10% Construction Risk Allowance	$3,579,000
				25% Design and Support Cost	$9,842,250
				Cost of Work Total	$49,210,000
				Annual O&M	$387,290

Opinion of Probable Cost:
Harbor Park (Newton's Creek Watershed Neighborhood 2)

Notes:
The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Group/Item	Quantity	Unit	Unit Price	Item total	Group Total
Harbor Park					
Flood Walls and Living Shoreline					
Harbor Park Wall	1	EA	$40,200,000	$40,200,000	
East Water Street Wall	1	EA	$600,000	$600,000	
East Water Street - I-264 Wall	1	EA	$300,000	$300,000	
Harbor Park Living Shore Line	1,200	LF	$1,200	$1,440,000	
					$42,540,000
Road Raise and Retrofit					
Norfolk Southern Berm	1	EA	$900,000	$900,000	
East Main Street Curb	500	LF	$120	$60,000	
Removal and Disposal of Unsuitable Material (2' Below Berm & Roads)	1,250	TON	$48	$60,000	
					$1,020,000
Stormwater Management					
East Water Street Gate	1	EA	$600,000	$600,000	
					$600,000
Landscape Elements					
10.8 AC of Waterfront Promenade	1	EA	$6,355,206	$6,355,206	
					$6,355,206
Other Items					
NEPA Compliance (Assume EIS)	1	EA	$870,000	$870,000	
Tidal Wetlands Mitigation Costs	4,000	SF	$15	$60,000	
Royalties to VMRC for conversion of subtital habitat to wetlands	25,000	SF	$2.50	$62,500	
Joint Permit Application (JPA) Coordination	1	EA	$60,000	$60,000	
					$1,052,500
				Cost of Work Subtotal	$51,570,000
				10% Construction Risk Allowance	$5,157,000
				25% Design and Support Cost	$14,181,750
				Cost of Work Total	$70,910,000
				Annual O&M	$148,180

Opinion of Probable Cost:
St. Paul's Area (Newton's Creek Watershed Neighborhood 3)

Notes:
The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Group/item	Quantity	Unit	Unit Price	Item total	Group Total
St. Paul's Area					
Demolition and Gray Infrastructure					
Building Demolition, Relocation, Counseling, & Vacancy Management	1	EA	$4,000,000	$4,000,000	
Road Construction for Re-Development (Pavement, Storm, Sanitary, Water, Wadis)	5,850	LF	$2,400	$14,040,000	
					$18,040,000
Flood Walls and Living Shoreline					
East City Hall Gate Wall	250	LF	$1,440	$360,000	
Market Street Wall	850	LF	$840	$714,000	
					$1,074,000
Road Raise and Retrofit					
Mariner Street Curb	330	LF	$120	$39,600	
Fill (Road Raise - Charlotte Street)	310	CY	$36	$11,160	
Road Construction (Charlotte Street Demolition, Pavement, Storm)	275	LF	$1,200	$330,000	
					$380,760
Stormwater Management					
East City Hall Gate	1	EA	$1,200,000	$1,200,000	
Excavation and Disposal of Soil (Main Canal and Wadis)	176,500	TON	$50	$8,825,000	
					$10,025,000
Landscape Elements					
44,400 SF of Rain Gardens	1	EA	$785,836	$785,836	
11.7 AC of Manicured Parks	1	EA	$4,080,755	$4,080,755	
44.2 AC of Constructed Wetlands	1	EA	$3,850,000	$3,850,000	
5 AC of Water Street Park	1	EA	$1,609,768	$1,609,768	
					$10,326,358
Other Items					
Resiliency Campus	1	EA	$5,000,000	$5,000,000	
Land Acquisition	1	EA	$4,100,000	$4,100,000	
					$9,100,000
				Cost of Work Subtotal	$48,950,000
				10% Construction Risk Allowance	$4,895,000
				25% Design and Support Cost	$13,461,250
				Cost of Work Total	$67,310,000
				Annual O&M	$133,480

Virginia ThRIVe Budget
Master and Projects

	Newport News - Salters Creek Watershed		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing			
Execution of Project Contract(s)			
Contract Monitoring	$195,600		
Construction Completion	$195,600		
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$391,200**	**$0**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements			
but not any easements)	$0	$0	
CLEARANCE & DEMOLITION			
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

	Newport News - Salters Creek Watershed		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal	**$0**	**$0**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements	$11,835,000	$855,000	
Subtotal	**$11,835,000**	**$855,000**	
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Newport News - Salters Creek Watershed		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal	**$0**	**$0**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements	$8,443,800	$9,260,000	City Of Newport News
Subtotal	$8,443,800	$9,260,000	
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$20,670,000**	**$10,115,000**	

Newport News Derivation					
Product	Total	HUD NDRC	Non-NDRC	Source of Estimate	Date
Chesapeake Ave Seawall Repair	$ 6,707,000	$ 6,000,000	$707,000	Engineer estimate based on previous repair done for the same strucutre	Feb-05
16th Steet Tide Gate and Pump Station	$ 12,690,000	$ 11,835,000	$855,000	Engineer estimate based on rough estimate done for the same system for a different project in the City	May-13
Urban Stream Restoration and Wetlands	$ 3,276,000	$ 2,835,000	$441,000	Engineer estimate based on the estimates prepated by consultants for other projects in 2015	Jan-15
Short Street and Christopher Shores Drainage Improvements	$ 840,000	$ -	$840,000		
27th Street & Buxton Avenue Grade Adjustments	$ 1,472,000	$ -	$1,472,000		
Lower Jefferson Avenue Streetscape 12th - 24th Streets	$ 2,000,000	$ -	$2,000,000		
Southeast Neighborhood Grocery Store	$ 3,800,000	$ -	$3,800,000		
Total	$ 30,785,000	$ 20,670,000	$ 10,115,000		

Newport News Proposed Project: Salters Creek Watershed Project

Source	Amount	%	Status
Requested HUD-NDRC	$20,670,000	67%	Requesting
City of Newport News Capital Improvement Plan	$10,115,000.00	33%	Approved in the City CIP
Total	**$30,785,000.00**	**100%**	

Virginia ThRIVe Budget
Master and Projects

	Virginia Team Administration		
BUDGET LINE ITEM	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract			
R/W Agent - Negotiations			
Legal - titles/closing/Appraisals			
R/W City Staff - Monitoring & Accounting			
Staffing	$3,934,399	$250,000.00	$200,000 VA; $50,000 ODU
Execution of Project Contract(s)			
Contract Monitoring			
Construction Completion			
Achievement of Benefits			
Administrative Project Closeout			
Subtotal	**$3,934,399**	**$250,000**	
PERMANENT RELOCATION			
Owner-Occupied Households			
Renter-Occupied Households			
Relocation Specialist			
Subtotal	**$0**	**$0**	
ACQUISITION (Land/Improvements			
but not any easements)	$0	$0	
CLEARANCE & DEMOLITION			
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal			
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

BUDGET LINE ITEM	Virginia Team Administration		
	HUD-NDRC BUDGET	NON-NDRC BUDGET	NON-NDRC SOURCE
Clearance & Demolition			
Owner-Occupied Construction			
Rehabilitation Specialist			
Temporary Relocation			
HMEP			
Subtotal	**$0**	**$0**	
SEWER/STORM DRAINAGE			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Long-Term O/M			
Construction/Improvements			
Subtotal	**$0**	**$0**	
WATER			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal			
STREETS			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			

Virginia ThRIVe Budget
Master and Projects

	Virginia Team Administration		
BUDGET LINE ITEM	**HUD-NDRC BUDGET**	**NON-NDRC BUDGET**	**NON-NDRC SOURCE**
Construction/Improvements			
Subtotal	**$0**	**$0**	
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design			
Inspection			
Acquisition (Easements Only)			
Temporary Relocation			
Construction/Improvements			
Subtotal	$0	$0	
Coastal Resliency Accelerator			
Subtotal			
City of Norfolk Direct Leverage - Detailed Below			
TOTAL	**$3,934,399**	**$250,000**	

ThRIVe Administration
Derivation of Cost

Product	Total	HUD NDRC	Non-NDRC	Source of Estimate
Deputy Director			$ -	
Program Manager	$ 646,783	$ 646,783	$ -	87000/annual * 6 years = $522,000; 2 percent escalation each year; fringe included
Compliance Specialist	$ 557,571	$ 557,571	$ -	75000/annual * 6 years = 450000; 2 percent escalation each year; fringe included
Data and Reporting Specialist	$ 520,400	$ 520,400	$ -	70000/annual * 6 years = 390000; 2 percent escalation each year; fringe included
Program Manager Travel	$ 53,664	$ 53,664	$ -	
Compliance Specialist Travel	$ 86,565	$ 86,565	$ -	
Data Specialist Travel	$ 29,175	$ 29,175	$ -	
Deputy Director Travel	$ 27,660	$ 27,660	$ -	
Community Engagement - Hampton Roads Planning District Commission - Program Delivery	$ 240,000	$ 240,000	$ -	
Community Engagement - Hampton Roads Planning District Commission - Material Development	$ 90,000	$ 90,000	$ -	
Estimated Indirect Costs	$ 1,408,447	$ -	$ -	
VITA Charges - Laptops	$ 27,492	$ -	$ -	$9,164/person over 6 years * 3 staff
VITA Charges - Phones	$ 10,800	$ -	$ -	$3,600 / person over 6 years * 3 staff
Deputy Director Salary (10%)	$ 86,987	$ -	$ -	
Rent	$ 72,000	$ -	$ -	1000/month
Furniture	$ 2,000			
Supplies	$ 5,500			
Copies	$ 6,000			
Payroll cost	$ 2,250			125/yr*3*6
Conference Travel - Governor's Office	$ 6,204			
ThRIVe Team Meetings	$ 54,900			
	$ 3,934,399			

Travel Calculation - Norfolk

	Lodging	Per Diem	Overnight	Years	Overnight Total	Day & Night trips	Round trip mileage	Rate	Total Mileage cost Per year	Total Mileage cost for 6 years	Overall
PM	$ 89	$ 38	20	6	$ 19,860	40	200	0.575	$ 4,600	$ 27,600	$ 47,460
Compliance	$ 89	$ 38	40	6	$ 39,720	60	200	0.575	$ 6,900	$ 41,400	$ 81,120
Data	$ 89	$ 38	10	6	$ 9,930	20	200	0.575	$ 2,300	$ 13,800	$ 23,730
Deputy Director	$ 89	$ 38	5	6	$ 4,965	25	200	0.575	$ 2,875	$ 17,250	$ 22,215

$ 174,525

Conference Travel (DC) - 1 per year, 3 nights assumed

	Lodging	Per Diem	Per Diem 75%Travel	Nights	Years		Round trip	Rate	Total mileage	Total Mileage cost for 6	Overall
PM	$ 222	$ 69	$ 52	3	6	$ 5,445	220	0.575	126.5	$ 759	$ 6,204
Compliance	$ 222	$ 69	$ 52	3	6	$ 5,445					$ 5,445
Data	$ 222	$ 69	$ 52	3	6	$ 5,445					$ 5,445
Governor's Office Rep	$ 222	$ 69	$ 52	3	6	$ 5,445	220	0.575	126.5	$ 759	$ 6,204
Deputy	$ 222	$ 69	$ 52	3	6	$ 5,445					$ 5,445

$ 27,225 $ 28,743

ThRIVe Team meetings

	Years	Day trips	Round trip mileage	Rate	Total Mileage	Total Mileage
Public Safety/Homeland	6	15	200	0.575	$ 1,725	$ 10,350
Emergency Management Rep	6	15	200	0.575	$ 1,725	$ 10,350
Governor's Office Rep	6	15	200	0.575	$ 1,725	$ 10,350
Public Safety/Homeland SecurityRep	6	15	200	0.575	$ 1,725	$ 10,350
Facility Rental	6	15		150	$ 2,250	$ 13,500

$ 54,900

ThRIVe Administration

Derivation of Cost - Salaries

	2016	2017	2018	2019	2020	2021	2022	**TOTAL**
PM	$ 87,000	$ 88,740	$ 90,515	$ 92,325	$ 94,172	$ 96,055	$ 97,976	**$ 646,783**
Compliance	$ 75,000	$ 76,500	$ 78,030	$ 79,591	$ 81,182	$ 82,806	$ 84,462	**$ 557,571**
Data	$ 70,000	$ 71,400	$ 72,828	$ 74,285	$ 75,770	$ 77,286	$ 78,831	**$ 520,400**

Virginia ThRIVe Budget
Master and Projects

BUDGET LINE ITEM	MASTER BUDGET TOTAL BUDGET	HUD-NDRC BUDGET	NON-NDRC BUDGET
Master Budget			
ADMINISTRATION			
Execution of DHCD Contract	$150,000	$150,000	$0
R/W Agent - Negotiations	$1,260,000	$1,260,000	$0
Legal - titles/closing/Appraisals	$1,135,000	$1,135,000	$0
R/W City Staff - Monitoring & Accounting	$442,000	$442,000	$0
Staffing	$4,184,399	$3,934,399	$250,000
Execution of Project Contract(s)	$500,000	$500,000	$0
Contract Monitoring	$4,482,600	$4,482,600	$0
Construction Completion	$4,245,600	$4,245,600	$0
Achievement of Benefits	$1,600,000	$1,600,000	$0
Administrative Project Closeout	$750,000	$750,000	$0
Subtotal	**$18,749,599**	**$18,499,599**	**$250,000**
PERMANENT RELOCATION			
Owner-Occupied Households	$9,960,000	$9,960,000	$0
Renter-Occupied Households	$11,665,000	$1,965,000	$9,700,000
Relocation Specialist	$980,000	$980,000	$0
Subtotal	**$22,605,000**	**$12,905,000**	**$9,700,000**
ACQUISITION (Land/Improvements	**$65,002,838**	$65,002,838	$0
but not any easements)	**$65,002,838**	$65,002,838	$0
CLEARANCE & DEMOLITION	**$6,820,000**	$6,820,000	$0
OWNER-OCCUPIED HOUSING REHABILITATION			
MicroMitigation Grants	$400,000	$400,000	$0
Owner-Occupied Construction	$0	$0	$0
Rehabilitation Specialist	$0	$0	$0
Temporary Relocation	$0	$0	$0
HMEP	$0	$0	$0
Subtotal	**$400,000**	**$400,000**	**$0**
SUBSTANTIAL RECONSTRUCTION			

Virginia ThRIVe Budget
Master and Projects

MASTER BUDGET

BUDGET LINE ITEM	TOTAL BUDGET	HUD-NDRC BUDGET	NON-NDRC BUDGET
Clearance & Demolition	$350,000	$0	$350,000
Owner-Occupied Construction	$0	$0	$0
Rehabilitation Specialist	$0	$0	$0
Temporary Relocation	$0	$0	$0
HMEP	$0	$0	$0
Subtotal	**$350,000**	**$0**	**$350,000**
SEWER/STORM DRAINAGE			
Architect/Engineer/Design	$17,546,895	$17,546,895	$0
Inspection	$3,975,342	$3,975,342	$0
Acquisition (Easements Only)	$1,500,000	$1,500,000	$0
Temporary Relocation	$400,000	$400,000	$0
Long-Term O/M	$1,820,000	$0	$1,820,000
Construction/Improvements	$111,003,502	$85,128,950	$25,874,552
Subtotal	**$136,245,739**	**$108,551,187**	**$27,694,552**
WATER		$0	$0
Architect/Engineer/Design	$0	$0	$0
Inspection	$0	$0	$0
Acquisition (Easements Only)	$0	$0	$0
Temporary Relocation	$0	$0	$0
Construction/Improvements	$12,690,000	$11,835,000	$855,000
Subtotal	**$12,690,000**	**$11,835,000**	**$855,000**
STREETS			
Architect/Engineer/Design	$7,410,000	$7,410,000	$0
Inspection	$2,620,000	$2,620,000	$0
Acquisition (Easements Only)	$3,500,000	$3,500,000	$0
Temporary Relocation	$2,500,000	$2,500,000	$0

Virginia ThRIVe Budget
Master and Projects

MASTER BUDGET

BUDGET LINE ITEM	TOTAL BUDGET	HUD-NDRC BUDGET	NON-NDRC BUDGET
Construction/Improvements	$66,256,000	$44,640,000	$21,616,000
Subtotal	**$82,286,000**	**$60,670,000**	**$21,616,000**
FLOOD DRAINAGE FACILITIES			
Architect/Engineer/Design	$35,860,000	$35,860,000	$0
Inspection	$3,780,000	$3,780,000	$0
Acquisition (Easements Only)	$0	$0	$0
Temporary Relocation	$0	$0	$0
Construction/Improvements	$232,260,800	$164,523,800	$67,737,000
Subtotal	**$271,900,800**	**$204,163,800**	**$67,737,000**
Coastal Resliency Accelerator	**$12,000,000**	$5,000,000	$7,000,000
Subtotal	**$12,000,000**	**$5,000,000**	**$7,000,000**
City of Norfolk Direct Leverage - Detailed Below	**$340,138,564**	**$0**	**$340,138,564**
TOTAL	**$969,188,540**	**$493,847,424**	**$475,341,116**

City of Norfolk - Additional Documentation

Direct Leverage

***Directly included in the current budget as part of the proposed projects (already included in budget)**	Direct Leverage	Source
Lifecycle O&M	$ 57,057,000	City of Norfolk
Grandy Village	$ 19,540,552	NHRA
Coastal Reslience Accelerator	$ 7,000,000	Comm. of VA; Foundation Support, Universities and Colleges
	$83,597,552	

Leveraged funds expended (since Sept 2014) or to be expended directly in the CDBG-NDR-assisted project sub-area. This leverage has/will address(ed) unmet needs and accelerate the realization/enhance the outcome of the proposed CDBG-NDR-assisted projects in Newton's Creek and Ohio Creek Watershed sub-area in the City of Norfolk (since Sept. 2014)	Direct Leverage	Source
Newton's Creek Watershed: Development of a 126 affordable housing units (construction begins in 2016)	$20,000,000	S.L. Nusbaum Realty
Ohio Creek Watershed: Environmental education activities (Sept. 2014 - June 2015)	$75,000	Elizabeth River Project
Ohio Creek Watershed: Environmental restoration planning and capacity building (Sept. 2014 - Oct. 2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Assistance to River Start Homes with best management practices (Sept. 2014 - Oct.2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Construction of oyster reef to restore shoreline (March 2016)	$100,000	Elizabeth River Project
Ohio Creek Waterhed: Community outreach - Neighborhood Builders (Sept. 2014 - Sept 2015)	$10,000	Elizabeth River Project
Ohio Creek Watershed: Kimball Terrace Culvert Replacement (completion 11/17/2014)	$1,200,000	City of Norfolk
Ohio Creek Watershed: Installation of Tide Gauge at Grandy Village (FY2016-2017)	$50,000	City of Norfolk
Ohio Creek Watershed: Line power to Ohio Creek flood control project (FY2017)	$150,000	City of Norfolk
Ohio Creek Watershed: Westminster road way replacement (completed 10/1/2015)	$225,000	City of Norfolk
Ohio Creek Watershed: Spartan Village acquisition - removal from the floodplain (FY2015-FY2020)	$1,200,000	City of Norfolk
TOTAL	**$23,030,000**	

City of Norfolk - Additional Documentation
Direct Leverage

Leveraged funds that has/will address(ed) unmet recovery needs in the remainder of the qualified MID-URN target area outside of the proposed CDBG-NDR-assisted project sub-area in the City of Norfolk (since Sept. 2014)		
Beach Nourishment along the shoreline between Little Creek Inlet and Willoughby Spit	$12,900,000	$18.4 million includes - City of Norfolk ($5.5 million - (*included in Storm Water Utility capital projects funds below)) and U.S. Army Corps of Engineers ($12.9 million)
Eight shoreline restoration projects and development of a green infrastructures training program in Lafayette River Watershed	$4,382,652	$4,640,000 includes - City of Norfolk ($257,343 - (*included in Storm Water Utility capital projects funds below)) and National Fish and Wildlife Foundation Sandy Grant ($4,382,652)
Mayor's Poverty Commission funds including Affordable Housing Trust Fund	$3,000,000	City of Norfolk
Environmental Sustainability capital projects funds	$16,341,667	City of Norfolk
Safe, Healthy and Inclusive Communities capital projects funds	$19,841,667	City of Norfolk
Storm Water Utility capital projects funds*	$30,078,867	City of Norfolk
Wastewater Utility capital projects funds	$116,166,667	City of Norfolk
Water Utility capital projects funds	$85,625,000	City of Norfolk
Stormwater Utility Operating Budget	$28,307,044	City of Norfolk
Residential best management practices to reduce flooding in the Elizabeth River Watershed	$75,000	Elizabeth River Project
Oyster reef restoration to stabilize shoreline to reduce flooding in the Lafayette River	$300,000	Elizabeth River Project
Community outreach to educate residents about best managmeent practices to reduce flooding	$40,000	Elizabeth River Project
Flood reduction through Rvier Star Homes program	$50,000	Elizabeth River Project
TOTAL	$317,108,564	
Total Direct Leverage; does not include $83,597,522 sourced in other documentation	**$340,138,564**	