



Photo of Hurricane Maria damage on St. Croix from *The Washington Post*

Tier 1: Broad Environmental Review Record (ERR)

Homeowner Reconstruction and Rehabilitation Program

St. Croix, US Virgin Islands

The Virgin Islands Housing Finance Authority

Community Development Block Grant—Disaster Recovery Program



November 27, 2019



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Development
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Tier 1: Environmental Assessment

Determination and Compliance Findings for HUD-assisted Projects

24CFR Part 58

Project Information

Project Name: VIHFA CDBG-DR, Homeowner Reconstruction and Rehabilitation Program for the Island of St. Croix, USVI

Responsible Entity: Virgin Islands Housing Finance Authority Community Development Block Grant-Disaster Recovery Program (VIHFA CDBG-DR)

Grant Recipient: Virgin Islands Housing Finance Authority (VIHFA)

State/Local Identifier: United States Virgin Islands (USVI)

Grant Number: B-17-DM-78-0001

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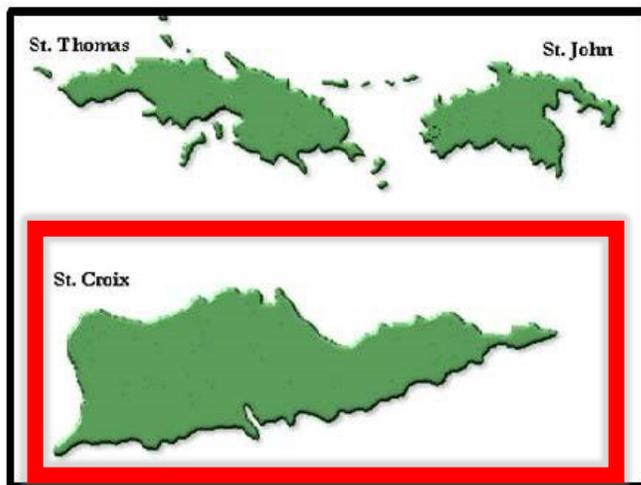
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Project Location:

The US Virgin Islands (USVI) is located in the Caribbean. The arc of Caribbean islands begins off the coast of Florida and extend all the way to South America. The region includes hundreds of islands and cays. They are grouped by location into the Greater Antilles, which includes the larger islands in the northwestern area (Cuba, Jamaica, Cayman Islands, Haiti/Dominican Republic and Puerto Rico); and the Lesser Antilles, which includes all the other islands from the Virgin Islands in the northerly Leeward Islands, to the southeastern Windward Islands and the islands just north of Venezuela.



The USVI is approximately 40-50 miles east of Puerto Rico; and 1109 miles southeast of Miami, Florida.

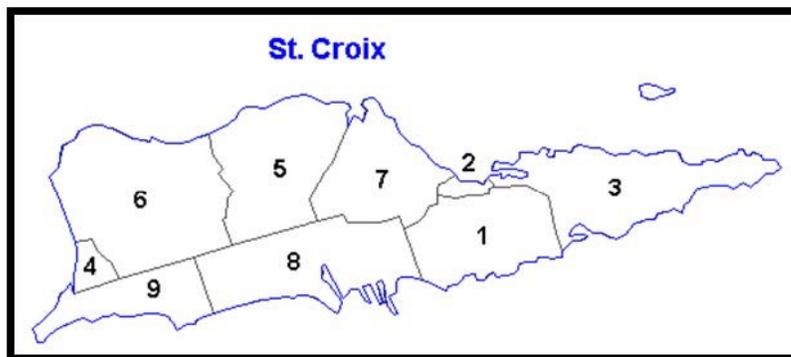
The USVI is composed of three major islands, **St. Croix**, St. Thomas and St. John, and approximately 50 smaller islands. The total land area of the territory is approximately **134 square miles**.

The geographic scope for the VIHFA CDBG-DR Homeowner Reconstruction and Rehabilitation Program described herein is the island of **St. Croix**. The island is 84 square miles in size, 22 miles long and the widest point is a little more than 6 miles. The terrain on the east end of the island is rocky and arid with short grassy hillsides and many cactus clusters. The west end of the island is lush with large fruit trees and ferns gracing the mountains. In the middle of the island is miles of beautiful beaches and rolling pasture lands. **St. Croix's** highest peak, Mount Eagle, is 1,088 feet high. The land slopes to flat-lands on the southern side of the island. There are two main towns, Frederiksted and Christiansted. There are a few natural harbors and protected bays. **St. Croix** is about 40 miles away from St. Thomas.

The total population of **St. Croix** in the 2010 Census was **50,601**.

St. Croix is divided into the following **Subdistricts** (*with population totals per the 2010 U.S. Census*)

1. Anna's Hope Village (pop. **4,041**)
2. Christiansted (pop. **2,626**)
3. East End (pop. **2,453**)
4. Frederiksted (pop. **3,091**)
5. Northcentral (pop. **4,977**)
6. Northwest (pop. **4,863**)
7. Sion Farm (pop. **13,003**)
8. Southcentral (pop. **8,049**)
9. Southwest (pop. **7,498**)



Damage	Owner		Renter		Total Households		
	No. of Households	% of Damaged Households	No. of Households	% of Damaged Households	No. of Households	% of Damaged Households	% of Total Households
Minor Damage	12,394	83%	5,567	66%	17,961	77%	42%
Major Damage	1,955	13%	2,703	32%	4,658	20%	11%
Severe Damage	555	4%	126	2%	682	3%	2%
Total	14,904	100%	8,397	100%	23,301	100%	54%

Figure 1. FEMA IA Data is used in this chart showing % of level of damage

The 2017 Presidential Disaster Declarations, which included the Virgin Islands, are recorded as Hurricane Irma (DR-4335) and Hurricane Maria (DR-4340). According to recent FEMA IA data, dated August 10, 2018, approximately 23,301 households throughout the Territory sustained some type of damage to their primary residences from one or both hurricanes. This represents 54% of all housing stock on the islands. Of the 23,301 households that were impacted, 5,339 suffered major or severe damage. Of these, approximately 2,510 are the owners' primary residences and 2,829 are renter-occupied homes. This data is reflected in the chart above.

Based on storm damage data, VIHFA has identified proposed target areas for the CDBG-DR Homeowner Reconstruction and Rehabilitation Program. The identified areas suffered the greatest damage from the impact of Hurricane Maria. While the entire island sustained damage, the most densely populated areas of the island, Frederiksted, Southwest and Grove Place, located in the Northwest subdistrict, are identified as target areas.



Figure 2. FEMA IA Data used in the above map showing % of homes with damage in the most impacted areas

2010 Census Housing Unit Counts in the US Virgin Islands: Island, Subdistrict, and Town	
Geographic Area	Total Housing Units
US Virgin Islands	55,901
St. Croix	25,275
Anna's Hope Village Subdistrict	1,977
Christiansted Subdistrict	1,575
East End Subdistrict	1,867
Frederiksted Subdistrict	1,649
Northcentral Subdistrict	2,406
Northwest Subdistrict	2,327
Sion Farm Subdistrict	6,735
Southcentral Subdistrict	3,277
Southwest Subdistrict	3,462

Figure 3. US Census Bureau, 2010 Census for the United States Virgin Islands

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The Virgin Islands Housing Finance Authority (VIHFA) has developed a Reconstruction and Rehabilitation program to assist eligible homeowners whose primary residence was damaged by Hurricanes Irma and/or Maria. This Program is designed to create a habitable living environment for homeowners whose primary residence was fully destroyed, or sustained substantial, major or severe damage.

The program will consist of two (2) Solutions:

- Homeowner Reconstruction and
- Homeowner Rehabilitation.

It is anticipated that there will be more eligible applicants than can be served with the available funds. However, these solutions were designed to assist homeowners who were deemed federal Low-to-Moderate Income (LMI), whose households' total annual gross income cannot exceed 80% of Area Median Income (AMI) based on HUD's most recent income limits, adjusted for family size for the area where the primary residence is located. Upon the availability of funds, additional program phases (rounds) will be created to support additional LMI individuals as well as the urgent needs of non-LMI applicants with incomes between 81% and 120% of AMI.

Homeowners who applied for FEMA or its designated program, Sheltering and Temporary Essential Power (STEP), and were rejected but still have homes that are uninhabitable may also apply.

VIHFA has also procured contractors to provide program related Case Management services, which includes but are not limited to program outreach to potentially eligible homeowners, application intake, program eligibility verification (both for the household and property), Duplication of Benefits review, Verification of Benefits analysis, award calculation, and documentation execution. Case Managers will also conduct Quality Assurance/Quality Control (QA/QC) of application intake and processing by presenting quality reviews at essential milestones in the grant management and construction process. Homeowners will also be afforded guidance on program guidelines and requirements.

VIHFA Program staff will provide oversight to the Construction Management Services firm in both the Reconstruction Solution and Rehabilitation Solution (in the Program Managed option) and has procured a pool of qualified homebuilder construction contractors to be available to homeowners participating in the program.

To assist the maximum number of households, reconstruction and/or rehabilitation work and materials will be limited to those items necessary to make the home livable, and not be restored to pre-storm conditions where luxury materials may have been used. Also, all construction activities will occur within the original footprint of the home.

Program Solutions:

The Virgin Islands Housing Finance Authority (VIHFA) Homeowner Reconstruction and Rehabilitation Program will offer homeowners two (2) solutions, Reconstruction or Rehabilitation. Based on the level of construction required, homeowners will be assigned to the respective Solution determined by the Program's Policy.

Reconstruction Solution:

Projects eligible for the Reconstruction Solution, issued in Round 1, are those low- and moderate-income homeowners' residences that were destroyed or substantially damaged, and the cost of rehabilitation is more than Seventy-Five Thousand Dollars (\$75,000.00), determined by the FEMA designation, local officials or by Program staff.

A Special Case Team will determine if Reconstruction is needed on a case-by-case basis or if the homeowner can be served through the Rehabilitation Solution. To be eligible for Round 1 of the Reconstruction Solution, the homeowner must meet all eligibility requirements, AND meet one (1) of four (4) property criteria submitted to and approved by the Case Managers:

1. Homeowners applied to FEMA and received a FEMA Individual Assistance (IA) designation showing the property was:
 - A. Destroyed,
 - B. Sustained Substantial Foundation Damage (>50%), or
 - C. Sustained Substantial Roof Damage (>50% but not repaired by STEP).

OR

2. Homeowners applied to STEP, was rejected and received a designation letter stating:

- a. The home structurally unsafe to enter, or
- b. Sustained extensive structural damage.

OR

3. Received a letter of condemnation, substantial damage notification, or notice of requirements to demolish from any appropriate local government office

OR

4. Submit evidence that the cost to repair the storm damage exceeds Seventy-Five Thousand Dollars (\$75,000). Evidence may include:

- a. Insurance adjuster's report, or
- b. Contractors estimate to repair (with date stamped photos)

Additionally, applicants that have already demolished their storm-damaged homes must also provide documentation evidencing the pre-storm structure type, total square footage, and that the damage to the home was caused by the storm. Applicants must also provide notices of condemnation, substantial damage notifications, or other notices requiring the property be demolished.

VIHFA Homeowner Reconstruction and Rehabilitation Program staff, Case Managers and Construction Managers will act on behalf of the homeowner to manage the reconstruction process for homes that were destroyed or substantially damaged. Homeowners will be offered the most appropriate and cost-effective options to develop building plans for a structure that will fit within the foundation footprint for the reconstruction of their home. For fixed price reconstruction or replacement projects, the Program may fund necessary demolition at the lowest possible rate available in the fixed pricelist.

If a homeowners' roof was not built to Virgin Islands Code and damage exceeds 50% of the roof area, a demolition of a roof membrane may be required by the Department of Planning and Natural Resources (DPNR). However, sound portions of masonry walls shall be retained.

The estimated cost of repair to reconstruct the home to the minimum housing rehabilitation standards will be established after the design plans have been completed. If the estimated cost of repair is determined to be Seventy-Five Thousand Dollars (\$75,000.00) or less, the project will be placed in the Homeowner Rehabilitation Solution.

Under the Reconstruction Solution, the Program with input from the Construction Management will select the homebuilder construction contractor through a mini-bid process and Program staff will execute the contract for the reconstruction of the storm damaged house.

The Program will disburse grant proceeds directly to the homebuilder construction contractor in progress payments for work that has been completed, as documented in Progress Inspections.

Rehabilitation Solution:

Projects eligible for the Rehabilitation Solution will commence once all Reconstruction Solution projects (Round 1) has been completed. This will begin Round 2, and again be made available to low- and moderate-income homeowners whose homes received major or severe damage and the cost to repair is equal to or less than Seventy-Five Thousand Dollars (\$75,000.00).

All Rehabilitation Solution applications will require documentation to support household and property eligibility.

The Rehabilitation Solution will provide homeowners with two (2) construction management options for the repair of their home:

1. **Program Managed Rehabilitation Option:** Program staff working with the Construction Management firm will assign a qualified construction contractor from the approved pool following a mini-bid process and manage the construction process from start through completion,

OR

2. **Homeowner-Selected Contractor Option:** The homeowner selects a qualified construction contractor and manages the rehabilitation construction process from start through project completion in keeping with the guidelines of the Program.

Program Managed Option for Rehabilitation

In the Program Managed Rehabilitation Option, Program Case Managers, Construction Mangers, and VIHFA staff will, on behalf of the homeowner, coordinate the initial property inspection; develop the project budget, scope of work, and estimated cost to repair; select the contractor and have the contract executed; coordinate with the contractor and homeowner; and manage the rehabilitation construction, inspections and payment process through project completion.

In the Program Managed Rehabilitation, the payments will be made directly to the construction contractor based on progress inspections.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9 (b)]:

On September 6, 2017, Hurricane Irma tore through the US Virgin Islands causing catastrophic destruction and killing more than 33 people across the Caribbean. The Category 5 storm brought 185mph winds which caused untold damage and devastation to the US Virgin Islands. Just two weeks later, on September 20, 2017, another Category 5 storm, **Hurricane Maria**, hit the Caribbean causing more destruction to the devastated area. Hurricane Maria, packing winds of 155mph as it tore through the islands' housing stock, caused catastrophic damage across the entire territory and neighboring Caribbean islands.

The storm severely damaged the territory's critical infrastructure, devastating more than 90 percent of the aboveground power lines and shutting down electricity and telecommunications

for months. Further, 52 percent of the territory's housing units were damaged, ports and airports were closed for weeks, and tons of debris was generated, often blocking roads and making transportation hazardous. In addition, according to a September 2018 report from the USVI Hurricane Recovery and Resilience Task Force, the territory's economic activity, especially tourism, was severely reduced in the months following the storms. This reduction led to job losses and a total estimated economic impact of \$1.54 billion.

In response to the request of the Governor of the United States Virgin Islands, the President of the United States declared a major disaster the day after each hurricane struck the territory. Major disaster declarations can trigger a variety of federal responses and recovery programs for government and nongovernment entities, households and individuals. In July 2018, FEMA approved a request from the Governor of the USVI to transition the use of Public Assistance Alternative Procedures Program for permanent work in the territory. The alternative procedures provide new flexibilities to FEMA and the USVI that are not available through the standard Public Assistance Program. In September 2018, FEMA issued the Public Assistance Alternative Procedures Permanent Work Guide for the USVI to provide guidance on the implementation of the program in the territory. FEMA and USVI officials stated that a section of the Bipartisan Budget Act of 2018 and the flexibilities provided by the program itself influenced the USVI's decision to transition using the alternative procedures.

The Bipartisan Budget Act of 2018

Section 20601 of the Bipartisan Budget Act of 2018 authorized FEMA, when using Public Assistance Alternative Procedures, to fund the replacement or restoration of disaster damaged infrastructure that provide critical services to industry standards without regard to pre-disaster conditions. FEMA and USVI officials determined that the territory has a valuable opportunity to use the alternative procedures to repair and rebuild its critical services infrastructure including the USVI's education system, electrical grid, and emergency medical care system, among others so it is in a better condition than it was prior to the 2017 hurricanes. Also, USVI officials stated that under the Standard Public Assistance Program currently being used, the territorial government is responsible for providing the initial funding to reimburse subrecipients for completed work prior to drawing down funds from the account holding the FEMA obligated amounts of money for each project. They explained that because of the financial liquidity challenges facing the territory, this process was problematic and required USVI officials to prioritize projects based on availability of the territory's funding. USVI officials stated that the Public Assistance Alternative Procedures will help to address this challenge by providing the territory with more flexibility regarding when and how to fund projects. For example, in certain cases, the USVI is able to consolidate permanent work projects approved under the Alternatives Procedures and share obligated funding across these projects. In

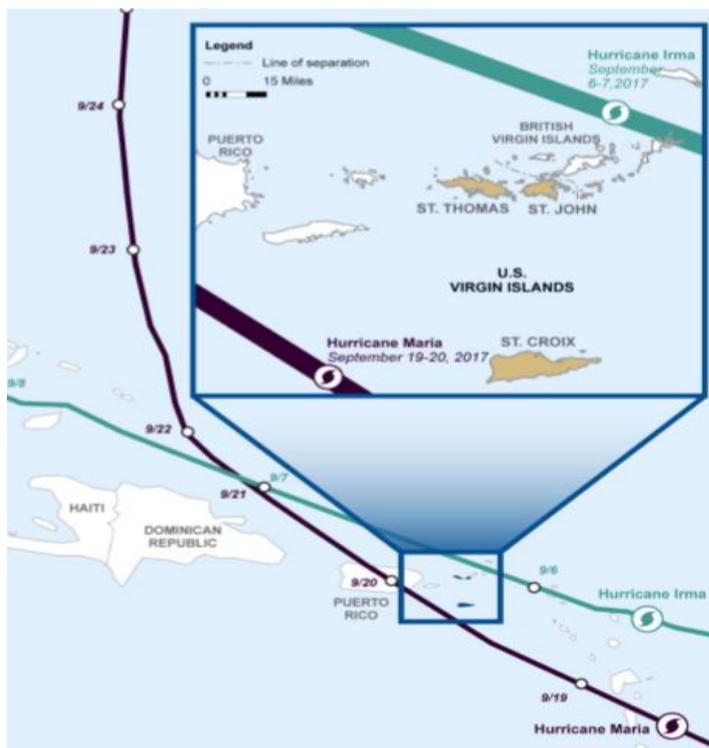


Figure 4. Hurricane Irma and Maria Paths

addition, the USVI is able to use any excess funds for cost-effective hazard mitigation measures or for activities that improve the recipient’s or subrecipient’s future Public Assistance operations or planning.

As of November 2018, FEMA and USVI officials stated they were working to identify and develop permanent work projects using the Public Assistance Alternative Procedures and discussing the process for developing the fixed-cost estimate for each project. Specifically, unlike in the Standard Public Assistance Program where FEMA will fund the actual cost of a project, the Public Assistance Alternative Procedures use a fixed-cost estimate which is agreed to prior to obligation and the USVI will be financially responsible for any actual costs that exceed this amount

St. Croix was already pummeled by Hurricane Irma prior to Maria making land fall. Both storms swept the island of some 50,000 people. Maria caused more damage than Irma, leaving **St. Croix** devastated within just 12 days. It is estimated that 51 percent of the structures on **St. Croix** were damaged or destroyed from the storms.

The purpose of the proposed project is to assist homeowners on **St. Croix** whose single-family homes were damaged or destroyed by the hurricanes. Due to the lack of safe public housing, immediate assistance was provided by FEMA for essential repairs to damaged homes. This allowed homeowners to shelter in their homes safely until long-term measures became available. The proposed program is needed to assist with providing adequate long-term housing for residents whose homes were damaged or destroyed due to Hurricanes Irma and/or Maria.

The Homeowner Reconstruction and Rehabilitation activities are expected to take place on scattered sites throughout the most impacted areas within the island of **St. Croix** that were the most affected by Hurricanes Irma and/or Maria. Property owners of any location within the island that sustained damage from the hurricanes can apply for the program.

Existing Conditions and Trends [24 CFR 58.04(a)]:

Hurricanes Irma and Maria, both Category 5 hurricanes with wind gusts of up to 178mph, impacted the US Virgin Islands within two weeks of each other on September 6 and September 20, 2017. Hurricane Irma caused the most damage to the islands of St. Thomas and St. John while, Hurricane Maria caused the most damage to **St. Croix**. Hurricanes Irma and Maria caused five direct deaths in the US Virgin Islands. Widespread catastrophic damage was reported, and the islands were stripped of most of their foliage. Numerous reports of collapsed homes, (see figure 5 below of collapsed home in **St. Croix**) businesses, and powerlines were reported. In addition, the fire and police stations collapsed, and the hospitals experienced major damage.

CATEGORY 5 DEFINITION

Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months. Wind speeds: 157mph or higher



Figure 5. Example of collapsed home and downed powerlines caused by Hurricane Maria on St. Croix

Synoptic History:

Hurricane Maria originated from a well-defined tropical wave that departed the west coast of Africa on September 12, 2017. The system moved westward over the tropical Atlantic for the next few days while producing scattered and disorganized deep convection. By the 15th of September, showers and thunderstorms increased and began to show signs of organization, with some curved cloud bands developing. Deep convection then quickly became more consolidated and better organized, and it is estimated that a tropical depression formed about 580 nautical miles east of Barbados by 1200 UTC on the 16th of September. Moving westward to the south of a mid-level high pressure area, the cyclone strengthened into a tropical storm around 1800 UTC. Tropical Storm Maria turned toward the west-northwest shortly thereafter, and quickly intensified into a hurricane by 1800 UTC on September 17, 2017. While situated in an environment of warm sea surface temperatures and light vertical shear, the hurricane strengthened extremely rapidly. With 115mph winds, Hurricane Maria became a major

hurricane by 1200 UTC on September 18, 2017, and just 12 hours later, as it neared Dominica, it became a category 5 hurricane with maximum winds of 167mph. The hurricane made landfall on the island of **St. Croix** with that intensity and an estimated minimum central pressure of 922mb around 0115 UTC on September 19th.

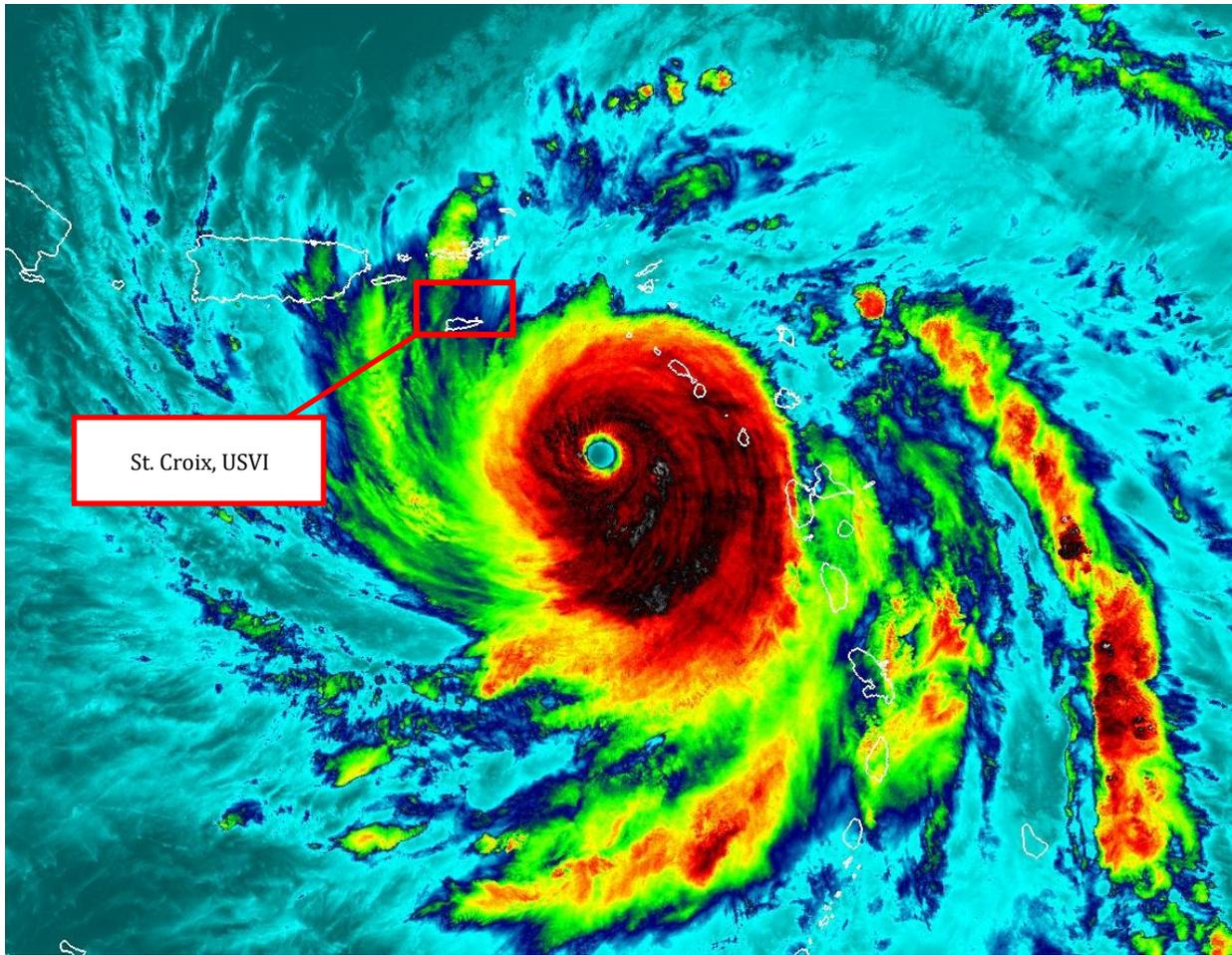


Figure 6. Hurricane Maria

After making landfall, Maria continued moving west-northwestward strengthening to its peak intensity of 173mph winds and a minimum pressure of 908mb around 0300 UTC on the 20th of September while centered approximately 25 nautical miles south of **St. Croix**. Hurricane Maria's center crossed the southeastern coast of Puerto Rico and then emerged into the Atlantic nearing other islands before continuing northward at a slow forward speed well offshore of the southeastern US coast. The catastrophic hurricane made seven landfalls, four of which occurred across the northern Caribbean Islands.

The 53rd Weather Reconnaissance Squadron of the US Air Force Reserve Command flew 22 observation flights, and 8 flights of the NOAA Hurricane Hunter P-3 aircraft. Data and imagery from NOAA polar-orbiting satellites including the Advanced Microwave Sounding Unit (AMSU), the NASA Global Precipitation Mission (GPM), the European Space Agency's Advance Scatterometer (ASCAT), and Defense Meteorological Satellite Program (DMSP) satellites, among others, were also useful in constructing the best track of Hurricane Maria.

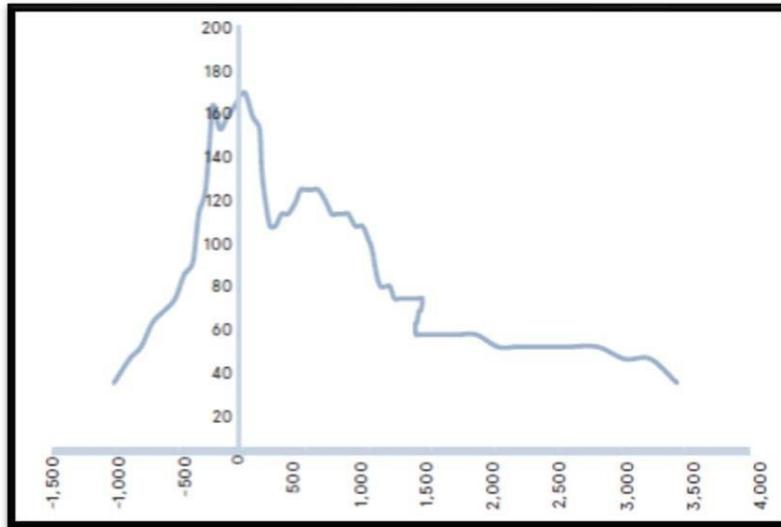


Figure 7. Wind speed at Hurricane Maria center vs distance to downtown Christiansted, St. Croix (MPH, vertical axis; miles, horizontal axis)



Out of all of the islands, **St. Croix** was the most severely affected by Hurricane Maria, having experienced the northern portion of the outer eyewall. Wind damage was evident across the entire island with many fallen trees, downed signs, roof damage and complete destruction of many homes. Excessive rainfall generated significant flooding and mud slides across the island. In St. Thomas and St. John, most of the roofs, signs and trees had already been destroyed or damaged by Hurricane Irma, but large rainfall generated flooding and mudslides.

The United States Geological Survey (USGS) measured high water marks of 5.1ft and 4.9ft above ground level inside structures. There were also reported high water marks surveyed at 9.5ft. This data suggests that maximum inundation levels along the immediate shoreline were as high as 9ft above ground level in some areas. For **St. Croix**, maximum inundation levels of 5 to 5 ft above ground level were recorded. Tide gauges at Limetree Bay Terminals in **St. Croix** measured peak water levels of 2.0ft MHW and 2.8ft MHW but, both of these sensors went offline and may not have recorded the highest water levels. Surge simulations and available tide gauge observations also suggest that maximum inundation levels of 1 to 3ft about ground level occurred on Culebra, St. Thomas, and St. John.

Hurricanes Maria and Irma caused extensive damage to power, internet and cable lines resulting in an almost territory-wide communications and power blackout. Residents of St. John, Water Island and the USVI's other smaller islands were stranded for days while ports were closed. Ferries could not run as sunken vessels made navigation treacherous. The damage to airports on **St. Croix** and St. Thomas effectively stranded the entire USVI population for weeks following the storms, trapping people who lost everything and were ready to leave the islands. Individuals and private charters began to run boats between the USVI and Puerto Rico to give people a chance to get to the still-open San Juan airport (SJU).

The Government of the US Virgin Islands and FEMA established two home repair programs in the Territory under FEMA's Individual and Public Assistance Funding; Sheltering and Temporary Essential Power (STEP), known locally as the Emergency Housing Repair Virgin Islands (EHRVI) and the Permanent Home Construction Program. In an ideal circumstance, the STEP Program would have been deployed one month after the hurricanes but was not initiated in earnest until January 2018. As of September 4, 2018, the STEP Program had completed repairs on more than 5,129 homeowners out of 10,350 applicants. It was estimated that 7,500 applicants would complete the program.

While all residents with storm damage from either hurricane were eligible for STEP, hundreds of homeowners were initially not able to complete the program due to the level of damage to their roofs. While the US Army Corps of Engineers placed temporary blue roofs in the early days after the storms, the temporary roofs had a shelf life of approximately 60 days. Prior to the onset of the 2018 hurricane season in June, the Government of the US Virgin Islands requested that FEMA, in recognition of the urgent need to rebuild homes and the deterioration of many of the blue roofs, allow the STEP Program to complete repairs to roofs that were damaged by hurricanes.

On August 9, 2018, FEMA authorized the STEP Program to repair or reconstruct roofs for homes that had roof damage as a result of the storms. FEMA also approved the ability for the Federal Coordinating Officer to make a case-by-case exception to increase the \$25,000 program cap.

The need for roof repair had prevented many homeowners from being able to complete the STEP Program. This new solution within the STEP Program enabled more than 4,000 homeowners to receive a repaired or replaced roof. It was estimated that the roof repair/replacement solution would result in an additional \$300 million being invested to repair hurricane-damaged homes.

By September 5, 2018, the STEP Program analyzed approximately 2,400 of the 4,000-plus homes that were eligible for roof repair or replacement. Of these homes, 1,000 needed full replacement, while the remaining 3,000 needed some level of repair. This included many homeowners that may have been ineligible for the STEP Program without this solution. Temporary repairs that allowed for safe sheltering that were completed through this program will not be considered a Duplication of Benefits (DOB) if they are not a long-term solution.

As detailed in the Action Plan, the Territory is in a unique position to take advantage of FEMA's full authority under the Insular Areas Act through the Section 408 Permanent Housing Construction Program which allows full repairs and reconstruction for both owner-occupied and rental housing. FEMA's unique Permanent Housing Construction Authority under the Section 408 of the Stafford Act allows them to do repairs and reconstruction in insular areas well beyond what the normal programs permit.

Under the above program, FEMA agreed to repair 22 single family homes. While the territory requested that FEMA utilize its full authority under the Insular Area Act to complete more home repairs and reconstruction, on May 25, 2018, FEMA declined to do new construction under the program. The new roof repair solution provided an alternative to address remaining needs.

Housing is further supported by FEMA through the Public Assistance Program for the repair and replacement of the damaged public housing and other HUD-assisted housing. The amount of funding

FEMA obligated or dispersed for repair and replacement of public housing under the Public Assistance Program was increased from \$330,275 in March 2018 to more than \$22 million on August 11, 2018. FEMA also agreed to the full replacement of the five most damaged buildings at the Tutu Complex; the base cost was \$73 million and was expected to increase. The territory currently owes more than \$65.4 million in match for critical infrastructure repair, reconstruction, and mitigation needs and public housing and other publicly assisted housing. Currently, it is estimated that Phase 1 of the Tutu High Rise Public Housing Development will require a match of approximately \$11 million for PA repairs. The territory will prioritize critical infrastructure payments for the Water and Power Authority (WAPA) and other entities as well as dedicate \$30 million for public and publicly-assisted housing over the first and second tranches.

In total, approximately \$573 million was dedicated through FEMA Programs beyond Individual Assistance for repairs. This includes approximately \$536 million dedicated to the STEP Program including the roof solution; \$2 million under the FEMA PA Program to repair public and publicly assisted housing; and \$15 million through HMGP for the home acquisition program.

Funding Information

Grant Number	HUD Program	Funding Amount
B-17-DM-78-0001	CDBG-DR	\$10,000,000

Estimated Total HUD Funded Amount:

\$10,000,000

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:

\$10,000,000

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes <input type="radio"/> No <input checked="" type="radio"/>	<p>The Airport Clear Zone Map for the Henry E. Rohlsen Airport was obtained from the Virgin Islands Port Authority (VIPA). The Airport Clear Zone does not extend into any residential areas. Therefore, none of the applicants for this program will be located in the Airport Clear Zone as this program involves the reconstruction or rehabilitation of existing homes.</p> <p>Also, the Virgin Islands Port Authority Executive Director Carlton Dowe was contacted on November 19, 2019 via email for a “no effect” concurrence letter for the VIHFA CDBG -DR Homeowner Reconstruction and Rehabilitation Program Broad Level Environmental Review.</p> <p>See Appendix A for compliance documentation; <i>Henry E. Rohlsen Airport Clear Zone Map</i>.</p> <p>See Appendix B for compliance documentation; <i>Virgin Islands Port Authority Concurrence Letter</i></p> <p>Topic is in compliance.</p>
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>The Caribbean Ecological Service Field Office, Deputy Supervisor, Edwin Muñiz was contacted on September 25, 2019 via a mailed letter for a “no effect” concurrence for the VIHFA CDBG-DR Homeowner Reconstruction and Rehabilitation Program Broad Level Review.</p> <p>All properties will be mapped at the Tier II site-specific level to determine if they are located in one of the 11 Coastal Barrier Areas on St. Croix, USVI. Any federal funding requested within a Coastal Barrier Resource System (CBRS) Unit triggers an extraordinary circumstance.</p> <p>Number of CBRS Units in the USVI: 37</p> <p>No HUD Funding will be used in a Coastal Barrier Resources Area.</p> <p>See Appendix C for compliance documentation; <i>Coastal Barrier Resources System Map</i></p> <p>See Appendix D for compliance documentation; <i>Coastal Barrier Resources System Concurrence Letter</i></p> <p>Refer to the Tier II Site Specific Checklist for site-specific compliance documentation and property location.</p>
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>All sites will be reviewed at the Tier II Site Specific level to determine their location within the floodplain and, if the site is located in the 100-year floodplain the applicant will be required to purchase and maintain flood insurance as required by the National Flood Insurance Program (NFIP).</p> <p>Each individual property will be mapped for documentation and proper permits will be obtained for compliance.</p> <p>Source: USVI DPNR, Floodplain information and permits required elevation.</p>

		<p>https://dpmr.vi.gov/building-permits/flood-plain-information-and-advisory-maps/</p> <p>Source: FEMA, Map Service Center</p> <p>https://fema.maps.arcgis.com/apps/MapSeries/index.html?appid=0adafb2f25944c3dbed2ee8dc09d3e46</p> <p>Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.</p>
<p>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5</p>		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes <input checked="" type="radio"/> No</p>	<p>The USVI Department of Planning and Natural Resources (DPNR), Division of Environmental Protection (DEP), Air Pollution Control Program Manager, Verline Marcellin was contacted on September 25, 2019 via standard mail for a “no effect” concurrence letter for the VIHFA CDBG-DR Homeowner Reconstruction and Rehabilitation Program Broad Level Environmental Review.</p> <p>The proposed project does not include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units. Also, the proposed project complies with the USVI Implementation Plan (SIP) because the activities would not be a significant source of sulfur dioxide or pollutants that contribute to ozone depletion.</p> <p>DEP Laws and Requirements:</p> <ol style="list-style-type: none"> 1. Title V of the Clean Air Act 2. The Virgin Islands Air Pollution Control Act Rules and Regulation (VR&R) (i.e., Title 12, Virgin islands Code, Chapter 9) 3. The 1995 Rules and Regulations of the Virgin Islands Air Pollution Control Act. <p>Source: US Environmental Protection https://www3.epa.gov/airquality/index.html See Appendix E for compliance documentation; <i>Department of Planning and Natural Resources Clean Air Act Concurrence Letter</i></p> <p>Topic is in compliance.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes <input checked="" type="radio"/> No</p>	<p>The USVI Department of Planning and Natural Resources (DPNR), Division of Coastal Zone Management (CZM) Director Marlon Hibbert was contacted on September 25, 2019 via standard mail for a “no effect” concurrence letter for the VIHFA CDBG-DR Homeowner Reconstruction and Rehabilitation Program Broad Level Environmental Review.</p> <p>All sites will be mapped at the Tier II site-specific level to determine if they are located within the Coastal Zone Management Tier 1. If the site is located in the CZM Tier 1, the project will be reviewed for compliance with the enforceable policies and mitigation measures will be added at the site-specific level as required. Also, all local and/or federal approvals will be required before the start of construction activities.</p> <p>See Appendix F for compliance documentation; <i>Department of Planning and Natural Resources Coastal Zone Management Concurrence Letter</i></p> <p>Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.</p>

<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes <input checked="" type="radio"/> No <input type="radio"/></p>	<p>HUD policy requires that the proposed site and adjacent areas be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants of the property.</p> <p>All sites will be mapped at the site-specific level to identify nearby dumps, junkyards, landfills, hazardous waste sites, RCRA Corrective Action sites with releases or suspected releases requiring clean-ups and/or further investigation.</p> <p>In addition, all rehabilitation sites with a structure that can be tested will undergo a mold analysis, all homes constructed before 1978 will undergo lead-based paint testing, and all homes constructed before 1990 will undergo asbestos testing. Any homes testing positive for mold, lead-based paint, and/or asbestos will undergo remediation before any construction activities can proceed.</p> <p>All activities must comply with applicable federal, state, and local laws and regulations regarding lead-based paint, including but not limited to EPA Repair, Renovation, and Painting (RRP) Rule (40 CFR 745.80 Subpart E), HUD's lead-based paint regulations in 24 CFR Part 35 Subpart A, B, H, J, and R, and HUD "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing."</p> <p>Construction contractors will also be made aware of any contaminants or toxic substances found on the site and provided with information regarding safety measures to be taken during construction activities.</p> <p>Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>The January 14, 2013 US Fish and Wildlife Caribbean Ecological Services Field Office, Blanket Clearance Letter for Federally Sponsored Projects, Housing and Urban Development covers activities and projects that typically result in no adverse effects to federally-listed species. If projects comply with one of the project criteria discussed below, no further consultation with the USFWS is required.</p> <p><u>Project Criteria:</u></p> <ol style="list-style-type: none"> 1. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach. 2. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation. 3. Rebuilding of demolished single-family homes or buildings, provided that the new construction is within

		<p>the pre-existing grasses or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach.</p> <p>See Appendix G for compliance documentation; <i>US Fish & Wildlife Endangered Species Blanket Letter</i></p> <p>See Appendix H for compliance documentation; <i>US Fish & Wildlife Concurrence Letter</i></p> <p>Topic is in compliance.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>The proposed project does not involve development, construction, rehabilitation that will increase residential densities, or conversion. Therefore, the review is in compliance with 24 CFR Part 51 Subpart C.</p> <p>Topic is in compliance.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>The proposed activity does not involve new construction; therefore, all project activities will occur within areas already under Urban Use.</p> <p>See Appendix I for compliance documentation; <i>Farmland Area Map</i></p> <p>Topic is in compliance.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes <input checked="" type="radio"/> No <input type="radio"/></p>	<p>Each address (or group of addresses for structures that are located in the same vicinity) at which reconstruction, or rehabilitation activities would occur, a floodplain determination will be made using the applicable Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) or best available data if newer floodplain maps are available.</p> <p>A HUD Floodplain worksheet will be completed for each property. An 8-Step Analysis was completed at the Tier I Level and published. Mitigation for homes located within the 100-year floodplain will be determined at the Tier II Site Specific Level. Please refer to the Site-Specific Checklist for each individual property for compliance documentation.</p> <p>Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes <input checked="" type="radio"/> No <input type="radio"/></p>	<p>The US Department of Housing and Urban Development Addendum to The Programmatic Agreement Among the Federal Emergency Management Agency, the Virgin Islands State Historic Preservation Officer, the Virgin Islands Territorial Emergency Management Agency, and the Virgin Islands Housing Finance Authority will be utilized to determine compliance with the National Historic Preservation Act of 1966.</p> <p>The scope of work will be determined for each applicant which will be used to determine which allowance applies</p>

		<p>to each applicant. The allowances consist of two tiers— First Tier and Second Tier. Staff may apply First Tier allowances whether or not they meet professional historic preservation qualification standards, while only staff meeting the applicable SOI Professional Qualifications Standards in accordance with Stipulation I.B(1)(a) of this Agreement may apply Second Tier allowances.</p> <p>If the proposed activities do not fall under either of the two tiers, the activities will be reviewed by the Virgin Islands State Historic Preservation Officer to determine compliance with the National Historic Preservation Act of 1966.</p> <p>See Appendix J for compliance documentation; <i>Historic Preservation—HUD Addendum to the FEMA Programmatic Agreement</i></p> <p>Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>The Homeowner Reconstruction and Rehabilitation Program would result in the same amount of development which existed at pre-disaster. The proposed activities would cause temporary increase in noise levels. Temporary increases in noise levels will be mitigated by complying with local noise ordinances. HUD has determined that noise abatement and control is not applicable to a disaster recovery program which meets the definition under 24 CFR Part 51.101(a)(3) “The policy does not apply to research demonstration projects which do not result in new construction or reconstruction, flood insurance, interstate land sales registration, or any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster.”</p> <p>Topic is in compliance.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>There are no sole source aquifers located in the United States Virgin Islands.</p> <p>https://www.epa.gov/dwssa/map-sole-source-aquifer-locations</p> <p>Topic is in compliance.</p>
<p>Wetland Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes <input checked="" type="radio"/> No <input type="radio"/></p>	<p>All sites will be evaluated for the presence of wetlands using the National Wetland Inventory maps , and if necessary, an on-site wetland inspection and delineation will occur.</p> <p>If project work on a specific site will impact a wetland, appropriate permits will be obtained. In compliance with Executive Order 11990.</p> <p>If Executive Order 11990 is triggered, the 8-Step decision making process under 24 CFR Part 55.20 modified for wetlands will be completed.</p>

		See Appendix K for compliance documentation; <i>Wetland Area Map</i> Refer to the Tier II Site-Specific Checklist for each individual property for compliance documentation.
Wild and Scenic Rivers Wild and Scenic rivers Act of 1968, particularly section 7(b) and (c)	Yes <input type="radio"/> No <input checked="" type="radio"/>	There are no wild and scenic rivers in the United States Virgin Islands. https://www.rivers.gov/map.php See Appendix L for compliance documentation; <i>Wild and Scenic Rivers Area Map</i> Topic is in compliance.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes <input type="radio"/> No <input checked="" type="radio"/>	Hurricanes Irma and Maria caused catastrophic damage to the US Virgin Islands. 5,339 households suffered major or severe damage and many families were displaced as a result. This program is intended to assist these families by reconstructing or rehabilitating their homes to make the home livable again. Topic is in compliance.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27]:

Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates, names, titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

1. Minor beneficial impact
2. No impact anticipated
3. Minor Adverse Impact—May require mitigation
4. Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The program will not require zoning changes or amendments and will consist of rehabilitation and reconstruction of the existing housing stock damaged by Hurricanes Irma and/or Maria. Reconstruction will not expand the existing footprint consistent with current local plans. The proposed project would repair or replace existing hurricane damaged homes consistent with local plans and zoning ordinances. If it is determine that permits are needed, the construction contractor will obtain them from the appropriate department.

Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>Soil Suitability: Any problems involving unsuitable soils on the proposed work sites were dealt with when the homes to be reconstructed or rebuilt were originally constructed. Therefore, unsuitable soils are not expected to cause problems for the proposed project. If unsuitable soils have caused structural problems for any of the existing or previous homes on the project sites, this would generally be addressed during the local permitting process.</p> <p>Slope: Adverse effects to slope are not anticipated. Minor adjustments to soil slope may result for properties requiring soil amendments or preparation for stilts and associated footings. However, impacts to slope within a localized area on a property would be considered negligible.</p> <p>Erosion: The proposed reconstruction of homes in the same footprint or on previously developed lots and rehabilitation of existing homes would not involve placement of significant amounts of fill or creation of significant expanses of bare soil, and would therefore have little potential to cause significant erosion.</p> <p>On sites close to wetlands, however, best management practices would be implemented to protect the wetlands from sedimentation caused by erosion (see Mitigation Measures below). Proximity of wetlands would be determined on a site-specific basis.</p> <p>Storm Water: Reconstruction or rehabilitation of residential properties will not involve a change in the existing structure's footprint and should have no significant impact on storm water systems. All sites will be evaluated for the need to comply with storm water permitting requirements, general permit and local Municipal Separate Storm Sewer Systems (MS4) permits. If multiple adjacent sites are worked on, the sites will be aggregated for the purposes of construction storm water compliance.</p>
Hazards and Nuisances including Site Safety and Noise	2	The Homeowner Reconstruction and Rehabilitation Program would be typical of home remodeling activities. Typical effects of reconstruction or rehabilitation may include sidewalk closures, fugitive dust and noise, which would be addressed under existing regulations governing construction activity in the USVI. If a site is determined to have hazardous materials, mitigation measures would be implemented to minimize the exposure of workers and the public. The presence or absence of hazards and nuisances are discussed on a site-specific basis.
Energy Consumption	1	Fossil fuel energy consumption would occur via the use of construction equipment and the shipment of materials required for the reconstruction and rehabilitation. However, the program would not expand the housing stock relative to conditions prior to the hurricanes therefore, would not increase long-term energy consumption. Rehabilitated and reconstructed homes would be more energy-efficient as a result of the program, due to incorporation of energy efficient building materials and practices.
SOCIOECONOMIC		
Employment and Income Patterns	1	The Homeowner Reconstruction and Rehabilitation Program would support employment and income patterns. The program is not expected to result in significant effects on area employment and income patterns. In addition, the proposed activities would benefit the affected areas by generating employment for the construction industry.
Demographic Character Changes, Displacement	2	The proposed Homeowner Reconstruction and Rehabilitation Program would not alter the demographic character of the area. The occupants of properties will be the same occupants which resided in the area prior to disaster.
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	<p>The proposed Homeowner Rehabilitation and Reconstruction Program funding would not result in adverse effects on the public schools in St. Croix. In most cases, students displaced by Hurricanes Irma and/or Maria would be able to return to their local school.</p> <p>There will be no significant adverse effects on educational facilities as new residences are not being added.</p>

Commercial Facilities	1	The Homeowner Reconstruction and Rehabilitation Program would not result in a significant effect on existing commercial establishments. Returning residents would frequent commercial establishment in the neighborhood. This would be an economic benefit to all local businesses that experienced a loss in revenue since the hurricanes.
Health Care and Social Services	2	The Homeowner Reconstruction and Rehabilitation Program would not result in a large increase in demands on the health care system. There will be no significant effects on health care facilities as new residences are not being added and only existing structures are being reconstructed or rehabilitated.
Solid Waste Disposal/ Recycling	3	VIHFA recognizes the Homeowner Reconstruction and Rehabilitation Program may produce a significant amount of waste. With knowledge of the current issues affecting the Virgin Islands Waste Management Authority (VIWMA), VIHFA will explore alternative options for waste disposal. Options include but are not limited to; the reuse or recycle of salvageable material, utilization of temporary dumping sites, shipping of waste off-island, burning of waste and/or utilization of grinders. The best Waste Management Plan will be determined at the Tier II Site-Specific Level with assistance from VIWMA. Refer to the Tier II Site-Specific Checklist for a comprehensive Waste Management Plan.
Waste Water/ Sanitary Sewers	2	Waste water should not be generated from the reconstruction or rehabilitation of the existing residences. The reconstruction or rehabilitation of single-family residential properties would not result in a significant demand on waste water disposal/treatment services. No significant impact would occur as a result of reconstructing the residences, as the housing stock would not be increased beyond pre-disaster conditions.
Water Supply	1	No demands would be placed on the water supply in St. Croix as no new residences are being built. The reconstruction or rehabilitation of residential properties using the proposed CDBG-DR funding would not result in a significant impact on water supplies. Reconstructed and rehabilitated homes may be fitted with water conserving fixtures and will likely consume less water than before the hurricanes.
Public Safety, Police, Fire and Emergency Medical	1	The proposed program will not result in additional housing units and thus, will not increase the demand on the local police, fire or emergency medical departments. The proposed use of CDBG-DR funding for the Homeowner Reconstruction and Rehabilitation Program would help displaced homeowners return to their neighborhoods, stabilizing those neighborhoods and helping restore public safety. Debris from construction activities will be managed as to not impede response time. It is possible debris or trucks may temporarily block access, though these hindrances would be minor and temporary. Redevelopment activities will ultimately provide benefits by reducing the amount of derelict properties.
Parks, Open Space and Recreation	2	The Homeowner Reconstruction and Rehabilitation Program would not introduce a new population to neighborhoods; therefore, no new demand on open space or recreational facilities would be generated. No significant negative impacts would occur.
Transportation and Accessibility	2	The Homeowner Reconstruction and Rehabilitation Program will not generate significant levels of traffic or place a significant demand on transportation systems in the area. Population density from pre-disaster levels is not expected to increase, since no additional housing stock of significance is being constructed.
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	Water Resources: The proposed rehabilitation, demolition and reconstruction in the same footprint would not pose a significant threat to groundwater or other water resources. There are no sole source aquifers located in the US Virgin Islands; however, since this action is for reconstruction and rehabilitation, water supplies are already established and no significant impacts are expected to occur. Unique Natural Features: The Environmental Review Guide for Community Development Block Grant Programs defines unique natural features as “primarily geological features which are unique in the sense that their occurrence is infrequent, or they are of special social, cultural, economic, educational, aesthetic or scientific value.

		Development on or near those features may render them inaccessible to investigators or visitors, or otherwise limit potential future use and appreciation of these resources. Examples of unique natural features include: sand dunes, waterfalls, unique rock outcroppings, caves, canyons, and petrified forests. The proposed reconstruction and rehabilitation of existing homes in the same footprint would have no adverse effect on natural features or agricultural land.
Vegetation, Wildlife	2	The Homeowner Reconstruction and Rehabilitation will not have an impact on the vegetation or wildlife because all construction work will occur on existing structures. VIHFA will avoid staging areas on undisturbed, vacant properties which could potentially cause an impact to vegetation and wildlife.
Other		

Additional Studies Performed: No additional studies were performed for this broad review of the environmental assessment. If additional studies are needed they will be performed at the Tier II level.

Field Inspection (Date and completed by): Will be completed at the site-specific level

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

- 29 U.S. Virgin Islands Code, Chapter 5 <https://www.lexisnexis.com/hottopics/vicode/>
- FEMA Protecting Your Home and Property https://www.fema.gov/media-librarydata/20130726-1756-25045-8598/protecting_home_book_508compliant.pdf
- FEMA Homeowner’s Guide to Retrofitting https://www.fema.gov/media-librarydata/1404148604102-f210b5e43aba0fb393443fe7ae9cd953/FEMA_P-312.pdf
- FEMA Elevating your Flood-prone House <https://www.fema.gov/medialibrary/assets/documents/725>
- Disaster Risk Reduction Minimum Codes and Standards <https://www.iccsafe.org/wp-content/uploads/FP-204-078-2.pdf>
- FEMA Protecting Building Utilities from Flood Damage—P-348 <https://www.fema.gov/medialibrary/assets/documents/3729>
- Flood Damage-Resistant Materials Requirements for Buildings Located in Special Flood Hazard Areas-NFIP FEMA Technical Bulletin 2 <https://www.fema.gov/medialibrary/assets/documents/2655>
- Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Area-NFIP <https://www.fema.gov/media-library/assets/documents/3503>
- FEMA Flood Map Service Center <https://msc.fema.gov/>
- International Existing Building Code <https://codes.iccsafe.org/public/document/IEBC2018>
- U.S. Virgin Islands Department of Planning and Natural Resources (DPNR) <http://dprn.vi.gov>
- Federal Aviation Administration—National Plan of Integrated Airport Systems Internet Website: http://www.faa.gov/airports/planning_capacity/npias/
- Federal Aviation Administration—National Plan of integrated Airport Systems Internet Website: http://www.faa.gov/airports/planning_capacity/npias/reports/media/2013/npias2013Narrative.pdf
- United States Department of Agriculture—Natural Resources Conservation Service Internet Website: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
- US Department of Housing and Urban Development Community Development Black Grant Program (CDBG) Internet Website: http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs

- **US Department of Housing and Urban Development—Noise Abatement and Control Internet Website:** http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/environment/review/noise
- **US Environmental Protection Agency—Designation for fine particulates** <http://www.epa.gov/pmdesignations/2006standards/final/region2.htm>
- **US Environmental Protection Agency—Nonattainment Areas Internet Website** <http://www.epa.gov/oaqps001/greenbk/ancl.html>
- **US Fish and Wildlife Service—National Wetlands Inventory** <http://www.fws.gov/wetlands/Wetlands-Mapper.html> <https://www.fws.gov/ecological-services/habitat-conservation/cbra/Maps/index.html>
- **US Environmental Protection Agency—Designations for Sole Source Aquifers** <https://archive.epa.gov/pesticides/region4/water/groundwater/web/html/r4ssa.html>
- **US Virgin Islands Code; Chapter 5** <https://www.lexisnexis.com/hottopics/vicode/>

List of Permits Obtained:

All necessary permits will be obtained at the Tier II Site-Specific Level.

Public Outreach [24 CFR 50.23 & 58.43]:

Early Floodplain Notice

Final Floodplain Notice

Cumulative Impact Analysis [24 CFR 58.32]:

The Federal Council on Environmental Quality’s (CEQ) regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA), set forth at 40 CFR Part 1508.7, require federal agencies to consider the environmental consequences of their actions, including not only direct and indirect effects, but also cumulative effects. Cumulative impacts result for the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions.

The cumulative effects of an action may be undetectable when viewed in the individual context of direct and even indirect impacts, but nevertheless can eventually lead to a measurable environmental change. Based upon the completion of this environmental assessment, environmental review of the proposed project indicates that there will be no significant changes to the existing environmental conditions across the impact categories implemented by HUD in response to NEPA. The proposed project is to reconstruct or rehabilitate homes on existing residential lots. The proposed project would have no impact on air quality, endangered species, noise abatement and control, explosive and flammable operations, slope, soil suitability, energy consumption, community facilities and services, transportation, and unique natural features.

The project would result in beneficial impacts to comprehensive plans and zoning; compatibility and urban impact, hazards and nuisances, including site safety; and visual quality.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:

Relocating to Sites Outside the Floodplain and/or Wetlands:

The benefits of performing residential reconstruction/rehabilitation on the currently occupied sites include, but are not limited to: sites are owned by the current residents, sites are adequately sized and are consistent with surrounding land uses and have already met the requirements for funding under the current program. A search for suitably sized, available sites outside the floodplain and/or wetlands and the procurement of other sources of available funding would extend the amount of time that residents would have to continue to live in unsafe and unsanitary conditions in un-elevated homes and thus remain at risk storm events. Failure to locate another site and/or procure funding from another source would result in some residents having to indefinitely live in such conditions. Therefore, this alternative was rejected.

Use of Other Flood Protection Measures:

Use of other flood protection measures could include building flood protection infrastructure such as levees around the communities at risk of flooding. Construction of this type of flood protection would be cost-prohibitive and would fail to improve current unsafe and unsanitary housing conditions. Therefore, this alternative was rejected.

No Action Alternative [24 CFR 58.40(e)]:

Under the No Action Alternative, the reconstruction, rehabilitation or replacement of MHUs on scattered sites throughout St. Croix damaged by Hurricanes Irma and/or Maria would not occur. This alternative was rejected because it would result in residents living in unsafe and unsanitary conditions in un-elevated homes in the floodplain and/or wetlands. This would continue to put them at risk during future disasters. Some homeowners would gradually secure resources to rebuild from non-VIHFA CBG-DR sources. Other homeowners may not be able to secure resources from other funding programs.

Since the CDBG-DR funding would not be available, some damaged properties would remain as they are: unsafe, unsanitary and unelevated and thus continue to be at risk of future storm incidents.

Summary of Findings and Conclusions:

Based upon completion of this Tier I Environmental Assessment, environmental review of the proposed project indicates that there will be no significant changes to existing environmental conditions across the impact categories implemented by HUD in response to the National Environmental Policy Act of 1969 listed below.

- Clean Air
- Explosive and Flammable Hazards
- Farmland Protection
- Noise Abatement & Control
- Environmental Justice
- Endangered Species
- Airport Hazards
- Sole Source Aquifers
- Wild and Scenic Rivers

Based on completion of this environmental assessment, the following subjects require site-specific analysis before it can be concluded that the proposed project activities would have not significant environmental impacts on individual sites:

- Coastal Barrier Resources
- Flood Insurance
- Coastal Zone Management Act
- Contamination & Toxic Substances
- Floodplain Management
- Historic Preservation
- Wetlands Protection

The Tier II: Site-Specific review must be completed prior to any construction activities occurring on a site.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]:

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above listed authorities and factors. These measures/ conditions must be incorporated into project contracts, development agreement, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

The following mitigation measures are required as conditions for approval of the program.

General

- All program activity will acquire all required federal and/or USVI permits prior to commencement of construction and comply with all permit conditions. If the scope of work of a proposed activity changes significantly, the application for funding must be revised and resubmitted for reevaluation under NEPA.

Construction

- Implement and maintain erosion and sedimentation control measures sufficient to prevent deposition of sediment and eroded soil in onsite and offsite wetlands and waters.

- Soil compaction will be minimized by controlling project activities in vegetated areas.
- Protect existing drain inlets from debris, soil and sedimentation.
- Protect stream, wetlands, woods and other natural areas from any unnecessary construction activities or disturbance.
- Utilize Historic Preservation resource to ensure that the work does not diminish the historic integrity of any local historic district or historic property listed in St. Croix
- Require an asbestos survey, lead-based paint survey, mold survey and project license as may be required prior to any demolition activities such as reconstruction of a building or removal of structures in the right-of-way of a road project.
- Use of energy-efficient doors, water heaters and HVAC units, as well as the incorporation of weatherization measures to the extent practicable.
- For compliance with NAAQS;
 - ◊ Utilize alternatively fueled equipment when possible
 - ◊ Utilize emission controls applicable to the equipment
 - ◊ Reduce idling time on construction equipment
 - ◊ Minimize dust emissions through good operating practices
 - ◊ Retrofit, repower, or replace older and more polluting diesel construction equipment in order to satisfy clean air construction requirements as necessary
 - ◊ Septic tank repair or replacement in a coastal zone will be situated at a safe distance from the shoreline to ensure proper drainage and filtering of tank effluents before they reach the water's edge with special attention given in identified erosion areas.
 - ◊ For cistern repair or replacement, construction measures shall be designed so as to control erosion and sedimentation, water quality degradation, and other negative impacts on adjacent water and wetlands. This includes: buffering and filtering runoff water, and using BMPs to control nonpoint source runoff.

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]
 The project will not result in a significant impact on the quality of the human environment.

Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27]
 The project may significantly affect the quality of the human environment.

Preparer Signature: *Kyona Veda* Date: November 27, 2019

Name/Title/Organization: Kyona Veda, Environmental Specialist, Virgin Islands Housing Finance Authority

Certifying Officer Signature: *Daryl Griffith* Date: November 27, 2019

Name/Title: Daryl Griffith, Executive Director

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).