U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

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Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: V.I. Water and Power Authority, LPG Infrastructure Acquisition

Responsible Entity: Virgin Islands Housing Finance Authority

Grant Recipient (if different than Responsible Entity): Click or tap here to enter text.

State/Local Identifier: United States Virgin Islands

Preparer: Amy Claire Dempsey, M.A., Bioimpact, Inc.

Certifying Officer Name and Title: Ms. Dayna Clendinen, Chief Disaster Recovery Officer

Consultant (if applicable): Amy Claire Dempsey, M.A., President Bioimpact, Inc.

Direct Comments to: Virgin Islands Housing Finance Authority, Attention: Dayna Clendinen

3202 Demarara Plaza, Suite 200, St. Thomas, VI 00802

Project Location: on Parcel Nos. 35, 35E, Tract 1 of Rem 35, and 35A-1 Subbase Crown Bay and Tract 4 of 4 Estate Krum Bay, in Charlotte Amalie, St. Thomas (18˚.327431N Latitude and -64˚962033W Longitude)

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

The acquisition of the existing Liquid Propane Gas (LPG) infrastructure at the Randolph Harley Power Plant in St. Thomas (Figure 1). The LPG infrastructure is currently owned by Vitol LLC. CDBG-DR MIT funds are proposed for the acquisition of the LPG infrastructure including the fuel loading arms, LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The LPG infrastructure is in place and in operation. No alteration or changes are proposed to the facility or its operation.

Level of Environmental Review Determination:
Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at §58.5:
Acquisition of public facilities and/or improvements: 24 CFR 58.35(a)(1).

Funding Information

Grant Number	HUD Program	Funding Amount
B-18-DP-78-0002	CDBG-MIT	$145, 000,000.00

Estimated Total HUD Funded Amount: $145, 000,000.00 for the purchase of LPG infrastructure on two islands, St. Thomas and St. Croix

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable)**:** None

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** $145,000,000.00

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 & 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	The facility is located approximately just over 0.5 miles from the Cyril E. King Airport. The LPG infrastructure being acquired is not in the flight path of planes taking off or landing (Figure 2). The Virgin Islands Port Authority has provided a letter stating the facility is not in the Airport Runway Clear Zone (Figure 3). The project is in compliance with 24 CFR Part 51 Subpart D.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier	Yes ☐ No ☒	The facility is not within a Coastal Barrier as designated by the Coastal Barrier Resource Act (Figure 4). The project is in compliance with the Coastal Barrier Resources Act, as

Improvement Act of 1990 [16 USC 3501]		amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501].
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No ☐ ☒	The LPG infrastructure being acquired is located in the Federal Flood Risk Management Standard (FFRMS) 100- year floodplain (Figure 5.) The LPG infrastructure to be acquired is on 0.1 acres of the 0.5-acre FFRMs floodplain. The infrastructure within the 100-year floodplain is not insurable. The project is in compliance with Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a].
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes No ☐ ☒	The acquisition of the LPG infrastructure will result in no changes in air quality. VIWAPA has submitted a new Air Permit on May 17, 2023. The NEPAssist website identifies no areas listed on the EPA EJ screening indexes, nor areas for non-attainment within a 1-mile radius (Figure 6). The acquisition will result in a continued reduction of CO emissions by facilitating the continued use of LPG as a fuel source. The acquisition will support the continued use of propane for power generation which has cleaner emissions that the use of diesel for power generation. The action is in compliance with Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes No ☐ ☒	The LPG infrastructure is within the first tier of Coastal Zone Managements' jurisdiction (Figure 7). Developments within the first Tier are required to obtain a Coastal Zone Management Permit from the Department of Planning and Natural Resource's (DPNR) Division of Coastal Zone Management . The Randolph Harley facility is permitted under CZT-2-14W and CZT-2-14L. The action and the facility are

		in compliance with Coastal Zone Management Act, sections 307(c) & (d).
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	The project is the acquisition of existing LPG infrastructure which is currently in operation. The NEPAssist report (Figure 8) of facilities within 1 mile of the proposed acquisition indicates that the Red Point Wastewater Treatment Facility, has numerous permits and violations, most for non-sampling, this facility is located across Lindbergh Bay from the facility and these violations have no impact on the facility. There are permitted activities at the Cyril King Airport (air permits) (i.e. Ready-Mix Concrete, generators) and water discharges (TPDES permit) which are also across Lindbergh Bay that will have no impact on the facility. Totalenergies is located at the airport and has both RCRA and an air permits and no violations and because of its location across Lindbergh Bay has no impact on the facility. RC &Associates has a TPDES permit with no violations to the north of Moravian Hwy and the facility. Total Petroleum is also to the north also has a TPDES permit, and the site has had several violations which would not affect the facility due to its location on Lindbergh Bay. The NEPAssist report indicates a Brownfield site within a 1-mile radius, a Phase I Environmental Assessment was completed and the property is ready for use so the site will have no impact on the facility. There are 8 hazardous waste permit holders and 3 properties with air permits to the north of Lindbergh Bay none of which will have an impact on the property due to their location to the west of Grambokola Hill. Both the Water and Power Authority (VIWAPA) and Patrick Charlies Enterprises have TPDES permits on Krum Bay, to the north of the facility, Patrick Charles has Formal Administrative orders related to water discharges which would have no impact on the facility. VIWAPA has numerous discharge violations none of which will

		impact the facility. All violations are being managed under the DPNR's Division of Environmental Protection (DEP). The violations will not affect the health and safety of employees operating the plant and will not conflict with the intended utilization of the property. The acquisition will not result in any change in the facility or its operation. PUMA has an air permit to the north on Krum Bay and will not affect the facility. There are listings for TPDES permits related to construction none of which will have an impact on the facility to the north (VI Paving). Off Shore Marine, VI Department of Property and Procurement and VI Department of Public Works have RCRA permits within a 1 mile radius with no violations recorded. Island Laundries has both air permits and discharge permits and no violations are listed. A Chervon gas station is within the 1-mile radius and has both discharge permits and RCRA permits with no violations recorded. On the other side of Krum Bay and Haypiece Hill, Crown Bay Marina, has air permits and RCRA permits and has no violations listed. Also, on the other side of both Krum Bay and Haypiece Hill are Nesbitt Trucking and St. Thomas Gas with RCRA permits. And as mapped is the old Water and Power Authority Offices, these are the offices and not the plant, but the listings are related to the plant which is the location of the LPG infrastructure. The NEPAssist Report includes the VIWAPA Laboratory which is listed as a Superfund site. Per the report it is not listed on the National Priority list and it does not include contaminants. This Superfund site does not impact the facility. There are two sites shown on an adjacent island, Water Island, one is Crowley Caribbean Services which is located in Crown Bay and listing is related to solvents and has no impact on the facility and the other listing is VIWAPA which is the location of the facility. The other listing on

		Water Islands is the Water Islands Catchment Basin, as a RCRA permit related to a cleanup, and the Flamingo Bay Army Test Areas – Former Fort Segarra. The location of these facilities on another island will not impact the facility. In late 2023, a release occurred from Tank 11, and impacted Lindbergh Bay to the west. The spill is currently being cleaned up under the authority of the U.S. Coast Guard and EPA. The spill will not affect the operation of the LPG infrastructure and generation process. The VIWAPA Harley facilities ICIS is provided as Figure 9. None of these listings will affect the health and safety of employees operating the plant or conflict with the intended utilization of the property. The acquisition will not result in any change in the facility or its operation. The action is incompliance with 24 CFR Part 50.3(i) & 58.5(i)(2).
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	The LPG infrastructure is within the fully developed Randolph Harley Power Plant. There are no ESA listed species within the power plant generating facility. There are ESA listed species in the offshore waters surrounding the facility, these include endangered coral species (*Orbicella faveolata, O. franksi, O. annularis, Dendrogyra cylindrus, Acropora palmata, A. cervicornis*, and *Mycetophyllia ferox*), Nassau grouper (*Epinephelus striatus*), Giant manta ray (*Mobula birostris*), and Queen Conch (*Aiger gigas*), and bottled nosed dolphin (*Tursiops truncates*). The list of endangered species from NOAA Fisheries Directory is found as Figure 10 and the map of Critical habitat from NOAA's Critical Habitat Mappers is found as Figure 11. The Fish and Wildlife Service's iPaC identified 1 marine mammal (West Indian manatee (*Trichechus manatus*), 1 bird (Roseate Tern (*Sterna dougallii dougallii*) species and 3

		sea turtle species (Leatherback Sea turtles (*Dermochelys coriacea*), Hawksbill sea turtles (*Eretmochelys imbricata*), and Green sea turtles (*Chelonia mydas*) and the Virgin Islands Tree Boa (*Chilabothrus granti*) which occur in the area. The report states there is no Critical Habitat in the areas (Figure 12). The project is the acquisition of existing LPG infrastructure with no changes in the facilities or the operations and therefore the acquisition has no effect on these species. The action is in compliance with Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	Liquid propane is not flammable, but if it escapes from its containment it is extremely cold and can become a hazard to skin and inhalation. Once it warms back into a gaseous state propane becomes explosive and flammable. There are LPG storage tanks on the property as well as diesel storage. The LPG tanks are constructed to meet all federal and territorial requirements. The tanks are contained within two concrete bunkers containing five tanks each. . The tanks were fabricated / hydrotested in accordance with American Society of Mechanical Engineers (ASME) Design & Fabrication of Pressure Vessels (VIII Div 2). The tanks within the bunkers in St. Thomas have a total capacity of 88,000 barrels (each tank containing 277,200US gallons) storing an effective propane supply of 18.3 days. The Randolph Harley plant has 6 fuel oil (diesel) and waste oil tanks. All oil tanks have secondary containment. VIWAPA has a Terminal Facility License and a Facility Response Plan (FRP) which is approved by the Department of Planning and Natural Resources' Division of Environmental Protection. The plan requires frequent inspection and monitoring of all storage tanks, piping, and containments. The FRP requires monitoring of all transfer operations. The FRP is reviewed and certified every 5 years and insures the

		maintenance of all fuel containment. The acquisition will not result in any change in the facility or its operation, and the proposed acquisition of the LPG infrastructure will not increase residential density or the number of people that are exposed to hazardous operations. The action is in compliance with 24 CFR Part 51 Subpart C.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes No ☐ ☒	The existing facility and LPG infrastructure is not located within Prime Farmland (Figure 13). The project is in compliance with Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes No ☒ ☐	The LPG infrastructure being acquired is located in the Federal Flood Risk Management Standard (FFRMS) 100- year floodplain and VIHFA identified and evaluated practicable alternatives to the acquisition of the LPG infrastructure within the FFRMS floodplain and the potential impacts on the FFRMS floodplain as required by Executive Order 11988, as amended by Executive Order 13690, in accordance with HUD regulations at 24 CFR 55.20 in Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. A map showing the FFRMS Floodplain on the Parcel with the LPG Infrastructure being acquired (elevation 13ft) is shown in Figure 14. The 8-Step process for the Virgin Islands Water and Power Authority – Propane Infrastructure Acquisition Project, St. Thomas, U.S. Virgin Islands, USA, was completed and an Early Notice was issued on May 24, 2024 (Figure 15). The 8-step process determined that there was no practical alternative and it was concluded that: VIHFA as the representative of HUD will fund VIWAPA's acquisition of the LPG infrastructure so that VIWAPA can continue

		to supply more economic reliable power to the people of St. Thomas and St. John. By acquiring the LPG infrastructure, the Authority will be more resilient and better prepared to withstand future disasters. The action proposed is the acquisition of the LPG infrastructure with no alterations therefore there will be no impact to the FFRMS floodplain. The action is in compliance with Executive Order 11988, particularly section 2(a); 24 CFR Part 55
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	The LPG infrastructure is located within an existing power facility which is completely developed and has no undisturbed areas. The VI State Historic Preservation Office has determined that the Section 106 Compliance Process is not required . The action is in compliance with the National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800 (Figure 16).
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	The action is the acquisition of the existing LPG infrastructure and there will be no changes to the structure and operations. There will be no new or change to the existing noise during the transfer of fuel from the vessel to the LPG infrastructure.. The property is in compliance the Noise Control Act of 1972 amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	There are no sole source aquifers in the area of the power facility (Figure 17). The acquisition of the LPG infrastructure will have no impact on sole source aquifers. The project is in compliance with the Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	There are no wetlands within the Randolph Harley Power Plant site (Figure 18) and the action is in compliance with Executive Order 11990, particularly sections 2 and 5.

Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	There are no Wild and Scenic Rivers in the U.S. Virgin Islands therefore the action is in compliance with the Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c) (Figure 19).
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The median household income in the Territory is 25% lower than the national median ($37,254 compared to $51,914), and 22% of the population is below the poverty level (compared to 14.4% nationally). According to the US Virgin Islands Community Survey, approximately 25% of all persons in the Islands live in poverty, and income per capita is $20,156. Just over half (52%) of households in Virgin Islands are LMI households. 58% of households in St. Thomas are LMI, and 55% of households in St. John are LMI. The proposed acquisition of the LPG infrastructure at the Randolph Harley Power Plant is intended to benefit St. Thomas, St. John, and Water Island, but the use of CDBG-MIT funds must be spent on projects that primarily benefit LMI communities. The proposed acquisition would directly benefit all of the island's population by maintaining access to fuel storage capacity which allows for 27 days of fuel storage at the St. Thomas facility. By acquiring the LPG infrastructure, the facility will be able to use its newest, most efficient and reliable power generation. LPG is currently 17% less expensive that diesel and this cost savings is passed directly on to customers. Without access to the LPG infrastructure the facility would be forced to run on older, less efficient and less reliable units that can operate on diesel. The acquisition and continued operation of the infrastructure does not result in disproportionate impacts to EJ communities. The supply of LPG enables the operation of more fuel-efficient

		generators which prevents a major reduction in generation capacity. The 2020 Census map includes the plant within a large area of the south shore of St. Thomas and is not representative of the Facility's location. The facility is within an area of industrial use. The nearest Low and Moderate Income areas are not impacted by the LPG infrastructure. The acquisition and continued operation of the infrastructure does not result in disproportionate impacts to EJ communities.

Field Inspection (Date and completed by)**:**
Anne Tagini of Bioimpact, conducted a site Visit of the STT Harley Facility on June 6, 2024.

Summary of Findings and Conclusions:

Ms. Tagini found the area which the LPG infrastructure to be located in to be clean and well kept. There were no signs of releases or other issues.

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 agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure	Condition
Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Click or tap here to enter text.	Click or tap here to enter text.

Determination:

☐ This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are no circumstances which require compliance with any of the federal laws and authorities cited at

§58.5. **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project; OR

☒ This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain "Authority to Use Grant Funds"** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR

☐ This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: _____

Date: June 9, 2024

Name/Title/Organization: Amy Claire Dempsey, M.A., President Bioimpact, Inc.

Responsible Entity Agency Official Signature: _____

Date: June 11, 2024

Name/Title: Dayna Clendinen, Chief Disaster Recovery Officer

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).

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT:

8-STEP PROCESS

Virgin Islands Water and Power Authority – Propane Infrastructure Acquisition Project, St. Thomas, U.S. Virgin Islands, USA

--Liquid Propane Gas Infrastructure Acquisition (Grant No. B-18-DP-78-0002)
--Decision Process for E.O. 11988 as Provided by 24 CFR §55.20

Step 1: *Determine whether the action is located in the FFRMS floodplain*

The proposed action is in a Federal Flood Risk Management Standard (FFRMS) floodplain. The Virgin Islands Water and Power Authority (VIWAPA) Dock and near shore area which house the loading arms, piping and fire suppression equipment is within FEMA 100-year VE 1% EL:10 as indicated on FEMA Flood Insurance Rate Map (FIRM) Panel 40 of 94, revised April 16, 2007. The FIRM is shown below as Figure 1. A small length of piping to the Liquid Propane Tanks (LPG) is within a Federal Flood Risk Management Standard (FFRMS) floodplain. The FFRMS has been determined utilizing FEMA Advisory Base Flood Elevation Map (ABFE) (Figure 2) and the Free Board Value (FVA) approach (https://www.hud.gov/program_offices/comm_planning/environment_energy/ffrms/faqs). The VIWAPA facility is a critical action as defined by 24 CFR 55.2(B)(3)(i). The FVA is determined by adding 3ft for critical actions (power generation and storage of highly volatile materials) to the highest flood zone based on best available information. The best available information is the ABFE in the action area which in this case is VE 1% EL:10, and therefore the FFRMS floodplain elevation has been determined to be 13 ft. The ABFE map for the action area is provided as Figure 2.

The proposed action is the acquisition of the Liquid Propane Gas (LPG) infrastructure at the Randolph Harley Power Plant in Charlotte Amalie, St. Thomas funded under the U.S. Department of Housing and Urban Development Community Development Block Grant-Mitigation (CDBG-MIT) grant, Grant Number B-18-DP-78-0002. The Randolph Harley Power Plant is located on Parcel Nos. 35, 35E, Tract 1 of Rem 35, and 35A-1 Subbase Crown Bay and Tract 4 of 4 Estate Krum Bay, in Charlotte Amalie, St. Thomas (18˚.327431N Latitude and -64˚962033W Longitude). The power plant produces all the public power and water for the islands of St. Thomas and St. John. The plant includes reverse osmosis water production plants, NOX Water Storage, Boilers, Line Department Office, 6 fuel oil storage tanks, waste oil tanks, 6 gas turbines, a powerhouse, transformer storage, chemical storage, a spill cleanup warehouse, used oil storage, a temporary storage yard, office buildings, storage warehouses, a substation, a fuel pier, outfalls, and submerge seawater intake The LPG infrastructure is located to the south of the main power plant. The LPG infrastructure is currently owned by Vitol LLC.

The proposed project is located within the VIWAPA Randolph Harley Power Plant. CDBG- MIT funds are proposed for the acquisition of the LPG infrastructure including the fuel loading arms, LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The LPG infrastructure is within the FFRMS floodplain. It is in place and in operation and no modifications are proposed.

The acquisition of the LPG infrastructure is critical to USVI's energy supply. The piers, infrastructure, and equipment to be acquired, must be in close proximity to navigable waters to serve their purpose, as

the operation is "functionally dependent" to navigable waters, (i.e., offload and transport of LPG from cargo ships to storage tanks). This proposed acquisition of the LPG infrastructure within a coastal high hazard area (VE) meets the criteria of 24 CFR 55.8(a)(2) which allows for the use of federal funds for a functionally dependent use in a coastal high hazard area (VE) zone. E.O. 11988 – Floodplain Management as amended by Executive Order 13690 applies. This project does not meet any of the exceptions at 24 CFR 55.12 or 13 and therefore requires an 8-step analysis of the direct and indirect impacts associated with the existing occupancy of the floodplain.

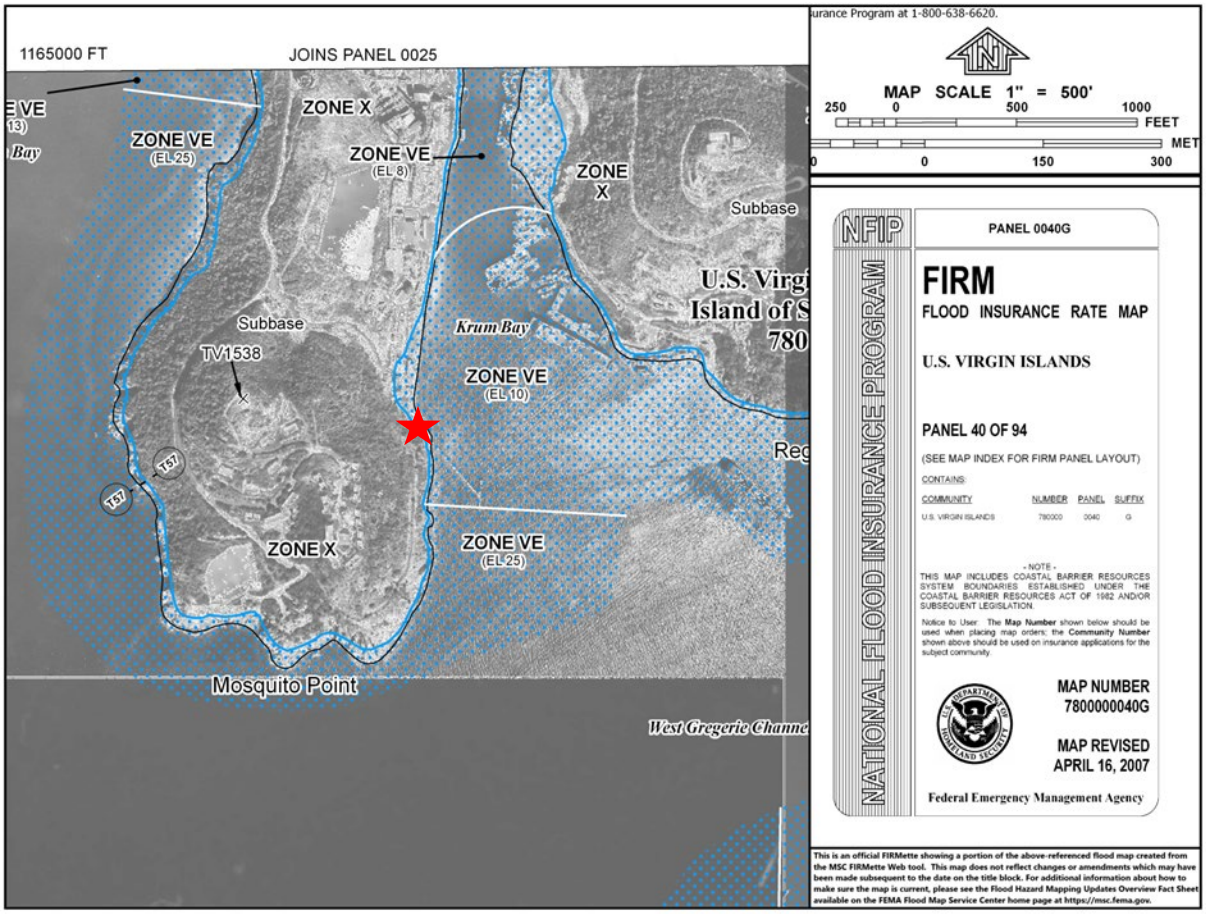


Figure 1. FEMA FIRM 40 of 94

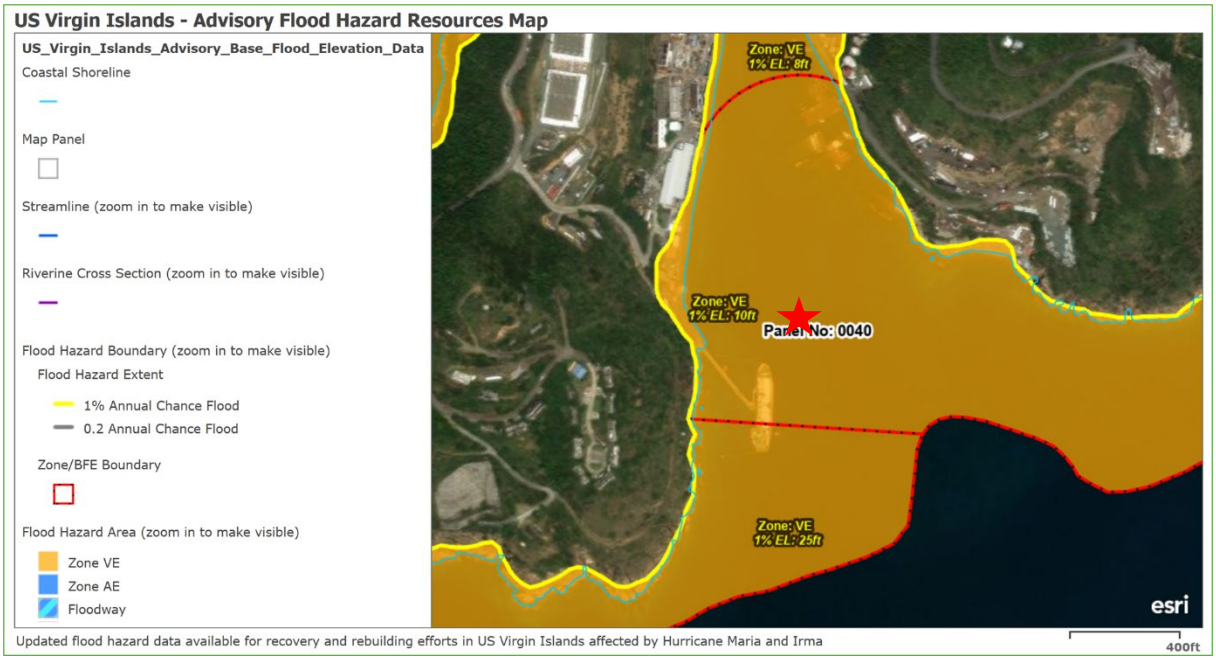


Figure 2. USVI Advisory Flood Hazard Resource Map

Step 2: ***Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.***

An Early Floodplain Notice describing the project was electronically published in English and Spanish by the Virgin Islands Housing Finance Authority on their official website on May 24, 2024. The notice was also sent to interested federal and territorial agencies. A list of specific agencies and a copy of the published notification is kept in the project's environmental review record and attached to this document. The required 15 calendar days were allowed for public comment. One comment was received from the United States Environmental Protection Agency (EPA). The EPA comments were related to air quality, and the ensuring that the environmental justice communities are made aware of the proposed project. These comments do not directly relate to potential impacts to the FFRMS floodplain, and therefore require no change in the selected alternative. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of acres involved, and the responsible entity contact for information, Ms. Dayna Clendenin, Chief Disaster Recovery Officer as well as a website and the location and hours of the office at which a full description of the proposed action can be viewed.

The action, the acquisition of the LPG infrastructure has been properly noticed.

Step 3: ***Identify and evaluate practicable alternatives.***

The proposed action is the acquisition of the LPG infrastructure to support the continued operation of the VIWAPA Randolph Harley Power Plant. The infrastructure is responsible for the delivery of 100% of the LPG required by the power facility and almost 80% of the energy produced in the USVI is produced utilizing LPG (VIWAPA CDBG-MIT Funding Application). VIWAPA was created in 1964 for the purpose of providing power and water for the Virgin Islands and VIWAPA has been operating the facility on that site since that time. The St. Thomas generating facilities located in Krum Bay is on the south shore of St. Thomas, west of the town of Charlotte Amalie. In order to obtain fuel and to operate the plant the power generating facility had to be situated adjacent to navigable waters which served as a means to obtain

fuel from water borne vessels and to obtain water for cooling and for the production of potable water. In 2013 VIWAPA began the process of converting its fuel oil-based power generation to LPG, a fuel which was more economical (30% in 2013) and would decrease greenhouse gas emissions by over 20%. The LPG, like the fuel oil, requires fuel deliver by ship, and LPG delivery infrastructure improvements were made to the existing pier including fuel delivery arms and a fire suppression system and piping. At the time of development of the LPG infrastructure (2013-2014) the site conditions were evaluated and taken into consideration, and infrastructure to the greatest extent possible was located in Zone X where 100-year flooding was not expected (Figure 1, FIRM Map 40 of 94). The fuel arms, fire suppression system and piping to assess the storage tanks had to be located in Zone VE because they are functionally dependent on accessing the vessel at the fuel pier. So, to address this issue these facilities were designed to withstand the forces of the VE zone as well as Category V hurricanes. The existing assets to be acquired consist of the necessary equipment to offload propane from the supply ship and are comprised of the fuel loading arm, fuel loading hoses, piping to transport the fuel onshore, and fire suppression equipment. These were all designed based on the Unified Facilities Criteria (UFC) General Criteria for Waterfront Construction. Notably, the UFC manual mandates precise specifications regarding the placement of dockside utilities for ship service, emphasizing the necessity for utility connection points to be strategically located on the dock in close proximity to the ship's utility terminal, assuming its berthing position. The equipment was engineered to withstand the challenges posed by water intrusion and corrosion. Furthermore, the terminal facilities have been constructed to meet Seismic Zone 2 and Internation Building Code (IBC) Category IV (CAT IV) risk category. These standards are specifically tailored for facilities that operate continuously, providing essential services, especially during times of crisis such as those encountered in power generating stations or Propane Supply Infrastructure Marine Assets Flood Hazard Mitigation critical lifeline facilities. Key design principles adhered to include those outlined in the American Petroleum Institute (API) and Nation Fire Prevention Association (NFPA) codes, with a particular focus on American Society of Civil Engineers (ASCE)-10 for hurricane and seismic design considerations. It should be noted that since the development of the LPG infrastructure the infrastructure has withstood two Category V hurricanes (Irma and Maria 2017).

The criteria for meeting the goal of supplying LPG for the VIWAPA Randolph Harley Plant are:

1. The infrastructure must be compatible with the existing LPG generating equipment;
2. The infrastructure must be compatible with the LPG delivery vessels and be able to access the the closest point of navigable water to the plant;
3. And the infrastructure must not impact the surrounding housing communities and businesses, especially EJ Communities.

Considered alternatives:

1. Develop new LPG delivery infrastructure on an adjacent site outside the existing plant.

   There is only one available site which could be developed to create the infrastructure necessary for the delivery of LPG to the power generating facility (i.e. creating the same LPG infrastructure proposed to be acquire) and this is the land immediately south of the VIWAPA Plant. The southern property is in a floodplain with a higher elevation than the existing infrastructure, at VE 1% El: 25ft. A new pier would have to be built to place the LPG infrastructure on which would extend into the VE 1% EL: 25ft zone, therefore the LPG infrastructure would be in the FFRMS up to an elevation of 28ft. Creating new LPG infrastructure would directly impact protected environmental resources including seagrass beds, coral critical habitat and ESA coral species as well as habitat for other marine species. The LPG Infrastructure like the existing LPG Infrastructure proposed for acquisition could be designed and constructed to have a negligible impact on the FFRMS floodplain like the existing

LPG Infrastructure and capable of delivering LPG to the plant, however, this alternative would result in significant environmental impact and a significantly greater monetary cost since it would require the permitting and development of a new pier. This action would result in impacts to a flood zone which has not been altered.

2. Locating the Infrastructure outside the Floodplain but within the plant.

   This is not a practicable alternative; the vessel delivery infrastructure must be located offshore. All coastal waters surrounding the island of St. Thomas are in the VE 100-year flood plain. Therefore, there is no alternative to locating the loading arms and fire suppression system outside the FFRMS. All of the Randolph Harley Power Plant to elevation 13ft on the southern end and 11ft to the north is within the FFRMS and there is nowhere within the plant where the LPG Infrastructure could be located which would be outside the FFRMS and be able to accomplish the delivery of LPG to the Randolph Harley power generating equipment.

3. No Action Alternative

   The no action alternative will not have any change on the floodplain as the infrastructure is already in place and will remain even if the infrastructure is not acquired. Today LPG supplies almost 80% of the power to the USVI. If the infrastructure is not acquired VIWAPA will have to revert to operating on fuel oil (diesel) for producing electricity and water. Requiring the plant to convert back to utilizing diesel would increase of fuel supply costs which would be transferred to residents thereby the no action alternative would have a direct adverse economic impact on residents of St. Thomas and St. John. The use of diesel fuel would also increase environmental impacts through air emissions. Diesel produces 17% more carbon dioxide than propane (U.S. Energy Information Administration (www.eia.gov/environment/emissions/co2_vol_mass.php).

   On April 22, 2024, Governor Albert Bryan, Jr. declared a State of Energy Emergency in the United States Virgin Islands to Avert an Energy Crisis (Executive Order No 537-2024). The declaration layout the current crisis in USVI due to the rising energy cost and inability to pay critical vendors for fuel which is resulting in having to curtail power generation leading to rotating power outages which threatens the health, safety, and economic stability of the residents of the USVI. The declaration lays out how this is impacting both residents and businesses in the USVI.

   Relying on a single fuel source puts the island at risk for island wide power outages. Acquiring the LPG Infrastructure maintains access to fuel storage capacity by providing 27 days of fuel storage at the Randolph Harley facilities. Not acquiring the LPG Infrastructure means that the facility will not be able to use its newest, most efficient and most reliable power generation. Without access to the LPG Infrastructure the facility would be forced to run on older, less efficient and less reliable units that can operate on diesel.

The LPG Instructure currently exists, and no alterations are proposed, the acquisition will have no impact on the floodplain. During the original design and development detailed alternative analysis was undertaken and the infrastructure was designed to address the 100-year flood zones and Category V hurricanes. The proposed acquisition will allow VIWAPA to continue operating on LPG which will result in cost savings for St. Thomas and St. John residents and lowering the discharge of greenhouse gases and provide significant storage of fuel during periods of emergency. The acquisition of the LPG infrastructure will help address the current state of emergency without any expansion or additional impacts to or

occupation of the floodplain.

Step 4: ***Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.***

This is the proposed acquisition of existing infrastructure which is currently in operation and no alterations are proposed. The initial project design took coastal flooding into account and the project was designed so that only the equipment that was functionally dependent to the transfer of fuel was located within the floodplain. The infrastructure being acquired is designed to withstand coastal flooding including the VE zone. The structures which are in the floodplain have been elevated and designed not be impacted by or to impact the floodplain's function. Specifically, the hoses which are used in the LPG transfer can be removed from the floodplain during periods of inclement weather. Further. the infrastructure design is such that the floodwaters flow unimpeded into the sea and do not result in backup of flood waters, accumulation or creation area of areas of scouring or erosion. The infrastructure as designed has not impacted flood levels at the adjacent properties including other areas of the plant. The facility is located on a narrow bay which only has industrial type uses. There are no residential communities in close proximity to the facility. The nearest residential communities are located 0.81 miles to the north across hilly terrain and 0.81 miles to the east on an adjacent island, Water Island. Communities farther from the facility therefore have not been impacted by the existing LPG infrastructure in the floodplain, but all are positively impacted by lower power cost, lower air emissions and more reliable power generation. The 2020 Census map does not identify the area around the plant as one of Low and Moderate Income and these areas are not impacted by the LPG infrastructure. The continued operation of the infrastructure does not result in impacts to the floodplain as the floodwaters flow around all of the infrastructure.

If the LPG infrastructure is not acquired the infrastructure will remain and there will be no changes in the floodplain whether or not the infrastructure is acquired.

The acquisition of the existing LPG infrastructure requires no alterations of the structures. It will continue existing operations and have no direct or indirect impact on the floodplain. Any impacts to the floodplain that resulted from the construction of the plant were adequately mitigated during its construction.

Step 5: ***Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.***

The occupied floodplain is a highly altered coastline adjacent to an industrial plant and as such does not provide habitat for flora or fauna. The shoreline is highly altered and does not have any historic or cultural use and is not used for any recreational purposes, however it does provide coastal access. The site does allow for erosion control and has a water quality function as sheet flow passes across the graveled and grassed shoreline. The occupied floodplain does not result in the backup or accumulation of floodwater which would impact residential communities. The existing LPG infrastructure was designed so that it does not have any impact on the floodplain (Bioimpact, Inc. and Environ International Corporation, VIWAPA Environmental Assessment Report, Section 6.03, 2013, available as part of the Environmental Review Record for this project) the piping and loading arm and related mechanical equipment are all elevated above ground level and do not impede stormwater or runoff from flowing into the sea.

A) Preserving Lives: The infrastructure design is such that it does not result in changes in runoff

or flooding, in the facility, or in the surrounding properties. There are no changes in the flood zone as a result of this existing infrastructure that poses a danger to workers at the plant or to residents of the nearest neighboring communities.

B) Preserving Property: The infrastructure design is such that it does not result in changes in runoff or flooding, in the facility, or in the surrounding properties that would create damage to structures of property.

C) Preserving Natural Values and Minimizing Impacts: The VIWAPA Randolph Harley Facility is a highly altered property and the parcel where the LPG infrastructure is has been developed since the 1940's when the Navy utilized the site. Prior to the development of the site for the LPG infrastructure there were limited remaining natural resources on the site where the LPG infrastructure was developed. The facility's design and operation are such that it does not have an impact on any natural resources.

The estimated remaining useful life of the project is 20 years. The project has been in operation for 7 years, implying a total useful life of 25-30 years, which is consistent with industry standards for assets of this type. VIWAPA undertakes maintenance and VIWAPA employs a third-party Operation & Maintenance services provider, Saintnals for the LPG infrastructure to manage the day-to-day operations and maintenance of the project. VIWAPA oversees and works closely with the third-party provider to ensure the project is operated and maintained effectively.

The proposed action only involves acquisition of the existing LPG infrastructure, and no further development or expansion of the occupied floodplain footprint are being proposed and therefore the project will not have any additional impacts on the floodplain, and as stated above, any potential impacts to the floodplain that resulted from the construction of the plant at the site were adequately mitigated during its construction. Therefore, VIHFA has determined that additional modification of the alternatives initially considered are not necessary.

Step 6: *Reevaluate the Alternatives.*

The location of the infrastructure is functionally dependent on being located close to navigable waters so LPG can be delivered, there is no LPG source available on the island and it must be brought in from off island. The LPG infrastructure as constructed was designed to avoid or minimize impacts to s the floodplain or impact adjacent properties and facilities. The selected alternative, acquiring the existing LPG infrastructure will not negatively impact the floodplain, operation of the plant or adjacent properties or facilities. The selected alternative meets the project goals of allowing the Randolph Harley Plant to receive LPG and supply propane to its customers without having any adverse direct or indirect effects on the floodplain.

Creating a new facility would have a significant monetary cost, $750 - $800 million (rough estimate provided verbally by Vivot Equipment Corporation-VI licensed Marine Construction Company) as well as a significant environmental cost. Using the existing infrastructure has no impact on the natural environment.

The no action alternative is impracticable as it will not allow the VIWAPA facility to operate on LPG a more economical more environmentally friendly alternative.

Step 7: *Determination of No Practicable Alternative*

It is VIHFA's determination that there is no practicable alternative for acquiring the existing LPG infrastructure within the FFRMS floodplain. Any alternative facility would require access to navigable waters which would also be within a VE zone.

The acquisition of the infrastructure is critical to USVI's energy supply. The proposed project will maintain access to and the use of the propane supply infrastructure via acquisition. The acquisition of the propane supply infrastructure since these assets are used to supply over 80% of the fuel used for power generation in the Territory (VIWAPA CDBG-MIT Funding Application). The Territory's power generation fleet has been specifically designed to utilize the LPG infrastructure. Over 40 megawatts of VIWAPA's newest and most efficient existing generation can only operate on LPG. The acquisition of the LPG infrastructure will

(1) Without the propane supply infrastructure, VIWAPA will be reliant on diesel as a single fuel for power generation. This increases the risk of fuel supply chain disruptions caused by a future disaster.

(2) Maintain access to full storage capacity. The propane supply infrastructure includes approximately 27 days of fuel storage on St. Thomas. Having full fuel storage capacity reduces the impact of potential fuel supply chain disruptions caused by a future disaster. Achievement of this risk reduction can be measured and verified with data on the utilization of this storage capacity over time.

Step 8: *Implement the Proposed Action*

VIHFA as the representative of HUD will fund VIWAPA's acquisition of the LPG infrastructure so that VIWAPA can continue to supply more economic reliable power to the people of St. Thomas and St. John. By acquiring the LPG infrastructure, the Authority will be more resilient and better prepared to withstand future disasters. The action proposed is the acquisition of the LPG infrastructure with no alterations therefore there will be no impact to the FFRMS floodplain.

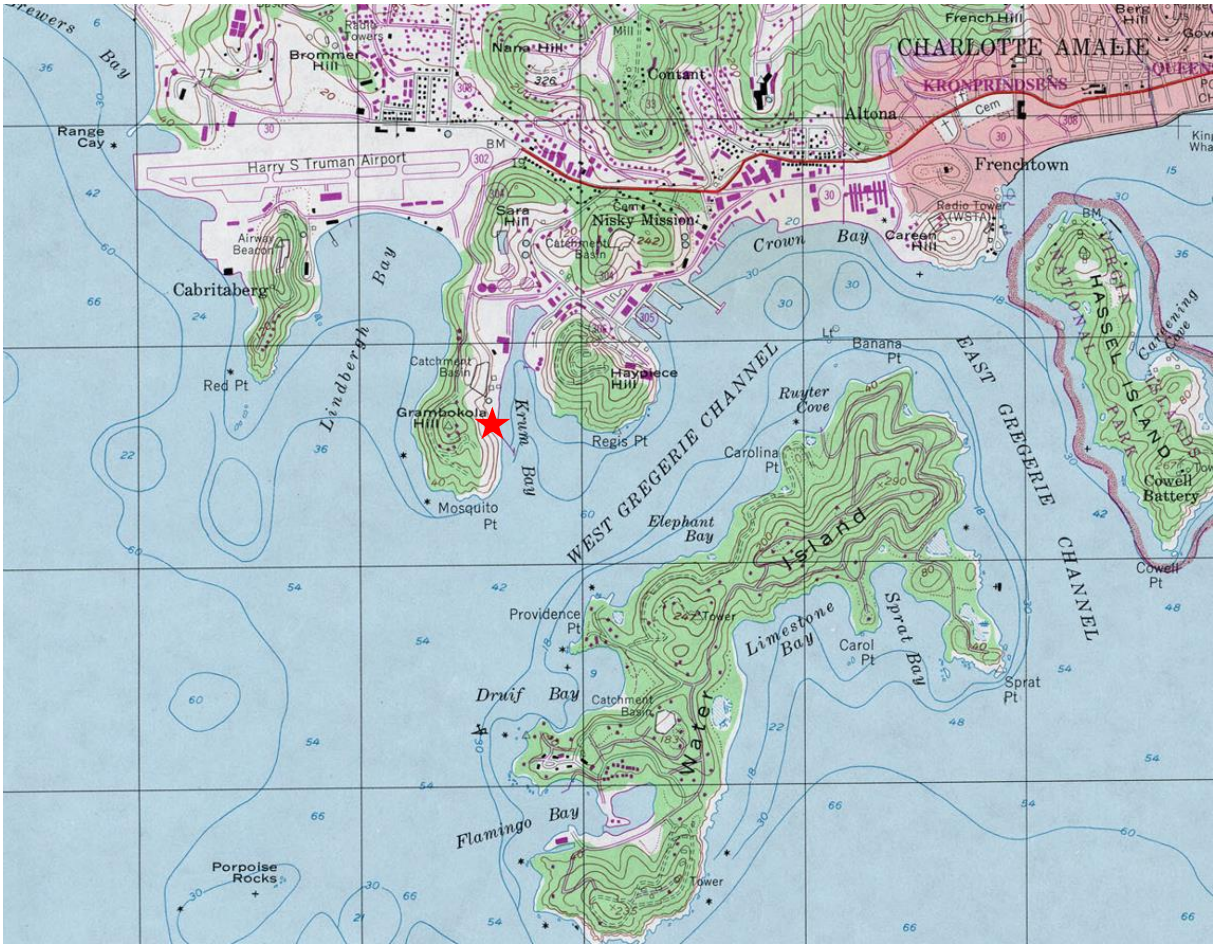


Figure 1. Central, St. Thomas Quadrangle Map, Virgin Islands 7.5 Minutes Series: Project Location shown as red star.

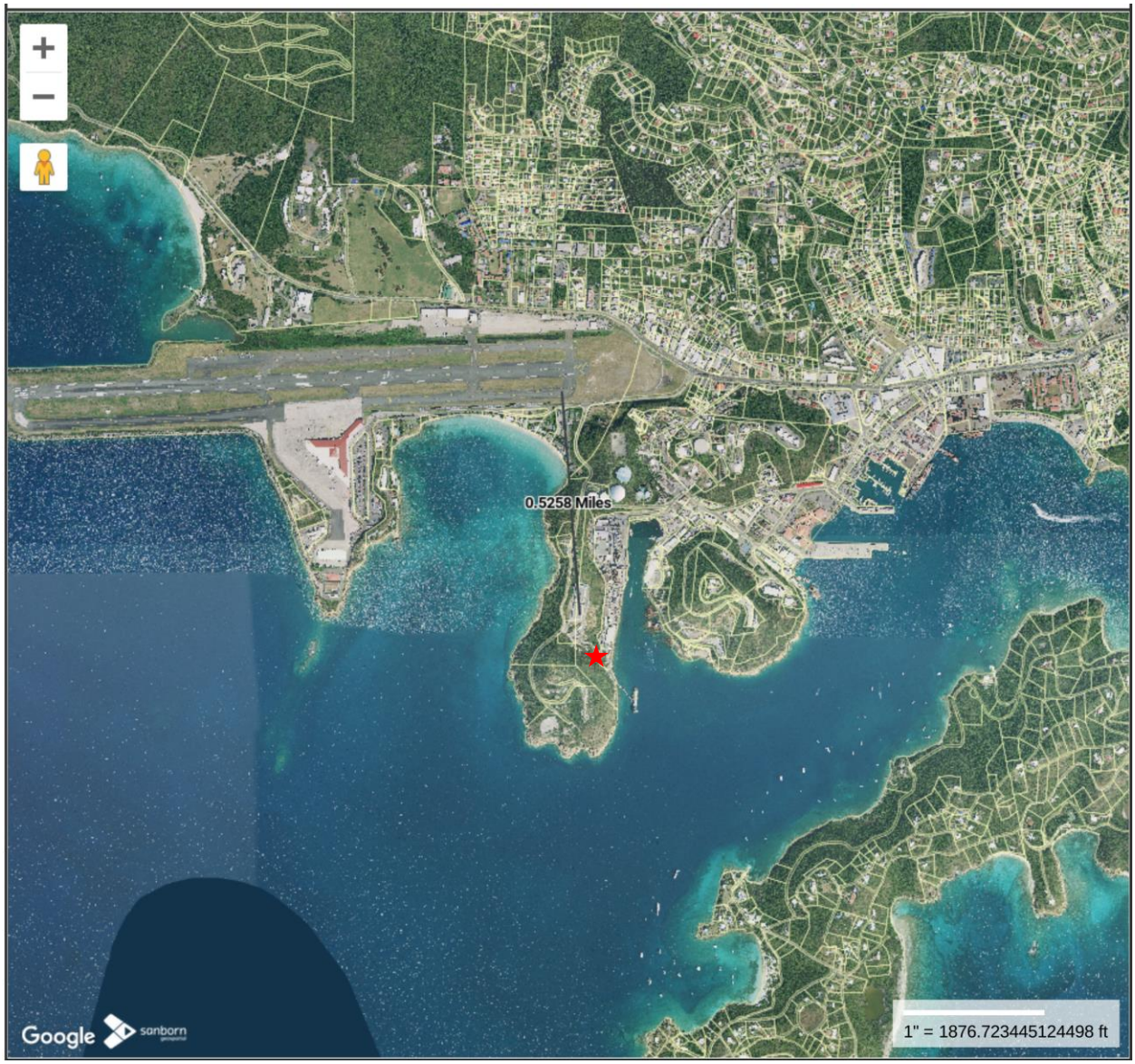


Figure 2. The nearest LPG infrastructure being acquired is approximately 0.5 miles from the Cyril E. King Airport and is not within typical flight paths.

VIRGIN ISLANDS PORT AUTHORITY
OFFICE OF THE EXECUTIVE DIRECTOR
P. O. BOX 301707
ST. THOMAS, USVI 00803-1707

October 23, 2023

Virgin Islands Housing Finance Authority

Via Electronic Mail

Dear Director Clendinen:

The Virgin Islands Port Authority (VIPA) respectfully submits this correspondence regarding the Airport Clear Zone regarding the Propane Supply Infrastructure on St. Thomas. The Propane Supply Infrastructure has been in construction since 2013 and has been in operation since 2017 under the ownership of Vitol. The Virgin Islands Water and Power Authority (WAPA)is in the process of acquiring the facility.

VIPA has no intentions of acquiring any land involved with the project as a portion of a Runway Clear Zone or Clear Zone acquisition program.

Sincerely,

Carlton Dowe
Executive Director
Virgin Islands Port Authority

PHONE: (340) 774-1629 **FAX: (340) 774-0025** **WEB: www.viport.com**

Figure 3. Virgin Islands Port Authority Clear Zone Letter

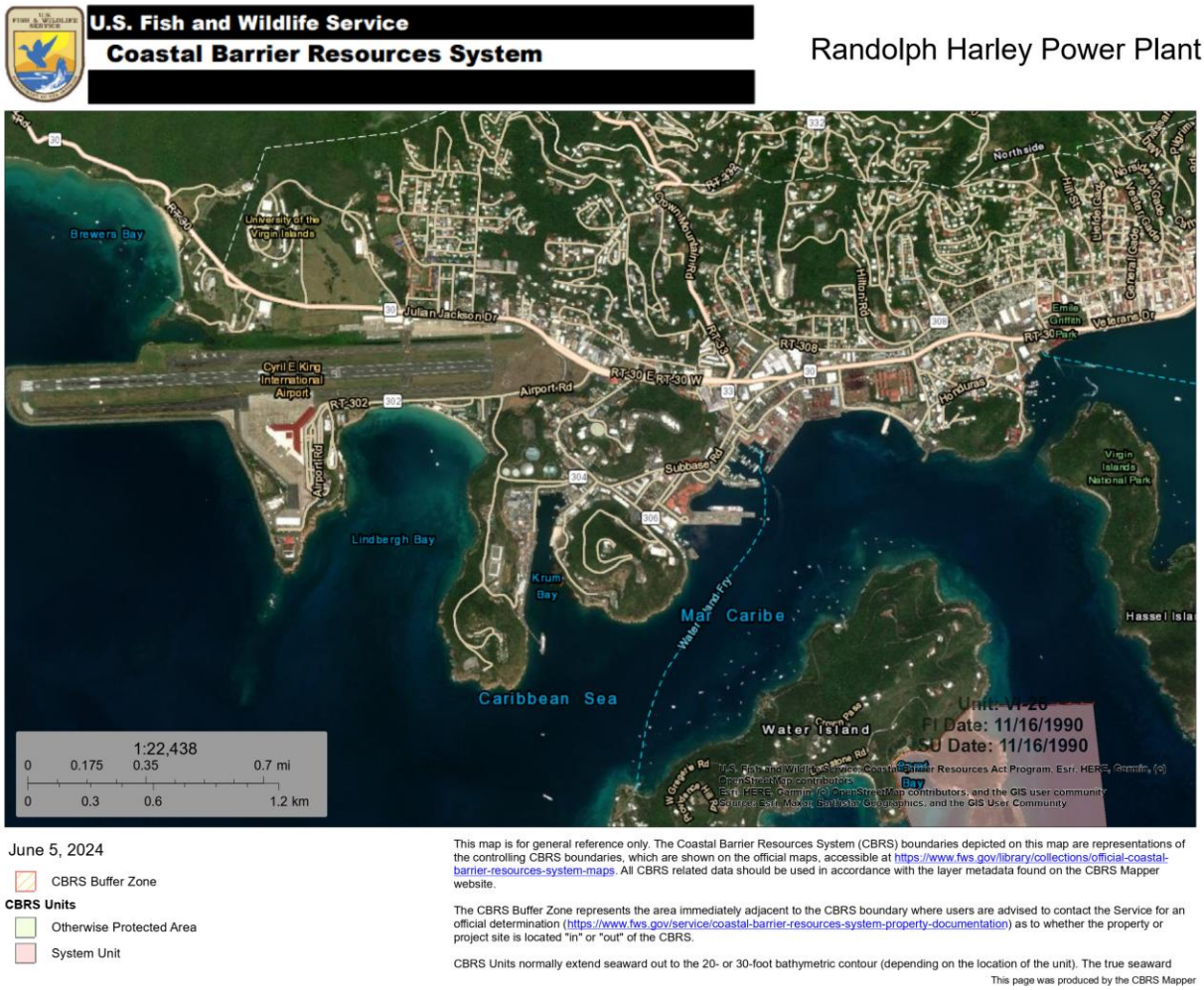


Figure 4. The Randolph Harley Power Plant in relationship to the Coastal Barrier, there are no Coastal Barriers near the facility.

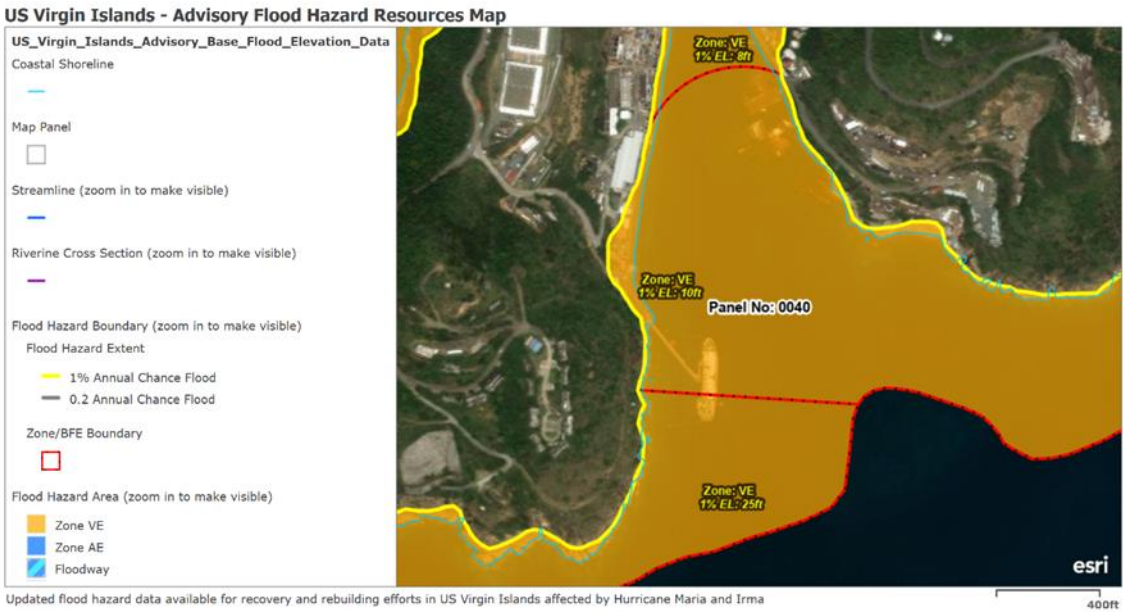
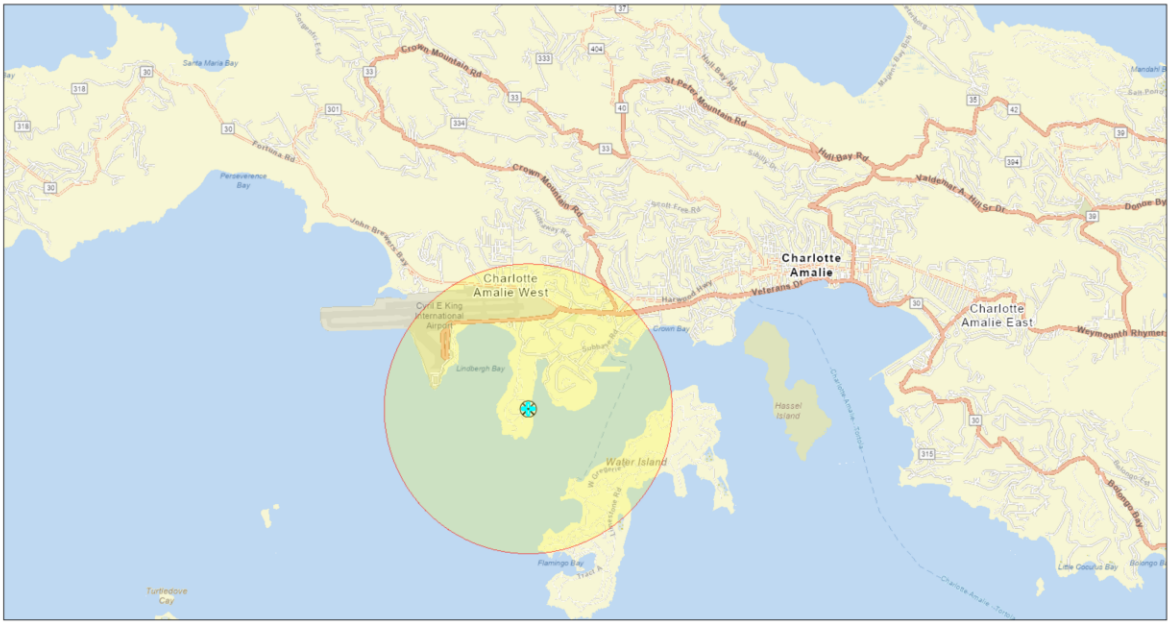


Figure 5. The U.S. Virgin Islands Advisory Flood Hazard Resource Map, FEMA Flood Zone VE 1% EL: 10ft is within the VIWAPA Property containing the LPG infrastructure.

NEPAssist Report

VITOL LPG STT

A3 Landscape



June 9, 2024

Project Buffer

VITOL LPG STT

1:34,206

0 0.4 0.8 1.6 mi

0 0.5 1 2 km

US Virgin Islands GIS Division, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau, USFWS, U.S. Environmental Protection Agency, Headquarters, U.S. EPA Office of Air and Radiation (OAR) - Office of Air

Project Location	18.327475,-64.962183
Within 1 mile of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	no
Within 1 mile of an impaired waterbody?	yes
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	yes
Within 1 mile of a Superfund site?	no

Within 1 mile of a Toxic Release Inventory (TRI) site?	yes
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	yes
Within 1 mile of a school?	yes
Within 1 mile of an airport?	yes
Within 1 mile of a hospital?	no
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	yes
Within 1 mile of a Chemical Data Reporting (CDR) site?	no
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	no
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	yes
Within 1 mile of a Munitions Response Site?	yes
Within 1 mile of an Essential Fish Habitat (EFH)?	yes
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	no
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	yes
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

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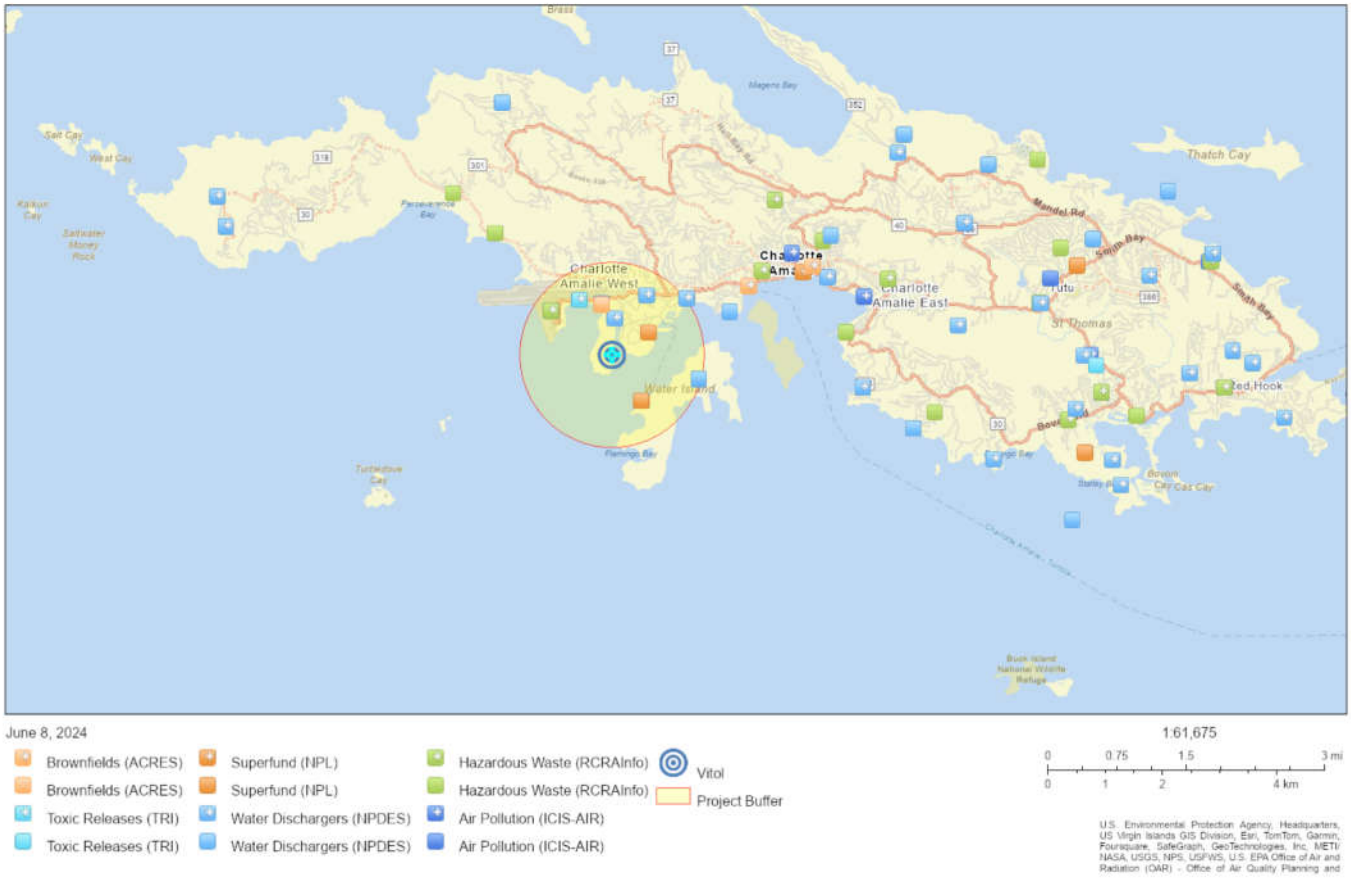
Figure 6. EJ Screening Indexes Non-attainment

Figure 7. The Coastal Zone Management (CZM) first tier jurisdiction is shown in color. The Power Facility and its associated LPG infrastructure is in the first tier and has been permitted by CZM.

NEPAssist Report

Vitol

A3 Landscape



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Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
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Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	no
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Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
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Within 1 mile of an Essential Fish Habitat (EFH)?	yes
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Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	yes
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

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Figure 8. Results of NEPA Assist.

ICIS Detailed Report

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Activity

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Contacts

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Rhonda	Liburd	Virgin Islands Water & Power Authority
Rhonda	Liburd	Virgin Islands Water & Power Authority
Rhonda	Liburd	Virgin Islands Water & Power Authority
Rhonda	Liburd	Virgin Islands Water & Power Authority

Permit Tracking

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Event Description <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_track_event/perm_track_event_code>	**Event Date** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_track_ev
Permit Expiration	30-APR-2020
Permit Effective	15-MAY-2019
Permit Issued	14-MAY-2019

Inspections

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit

No Inspections Found.

Outfalls/Pipe Schedules

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nmbr>
OUTFALL TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_type_code>	External Outfall	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_fe
ACTIVITY STATUS <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_flag>	A	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
LATITUDE <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/latitude_measure>	+18.333333	**LONGITUDE** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/longitude_measure>
LAT/LON ACCURACY <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/horizontal_accuracy_measure>		**LAT/LON METHOD** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/horizontal_collect_r

LAT/LON SCALE <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/source_map_scale_nmbr>		**LAT/LON DATUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature_coord/horizontal_ref_datu
INACTIVE DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_comp_status/status_end_date>		**USGS HYDRO BASIN CODE** <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/huc_code>
INIT DMR DUE DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_schedule/initial_dmr_due_date>	12-JUL-2019	**SUBMISSION UNITS** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/report_frequency_code>
PIPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_text>		**UNITS IN SUBM. PERIOD** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_schedule/nmbr_of_submission
INIT REPORTING DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_schedule/initial_monitoring_date>	15-MAY-2019	**REPORTING UNITS** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/report_frequency_code>
UNITS IN REPORTING PERIOD <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_schedule/nmbr_of_report>		**DMR COMMENT** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/dmr_comn

Limits Report (Pipes)

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permi
PIPE NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>	001	
PIPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_text>		**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
DMR COMMENT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/dmr_comment_text>		**LIMIT SET TYPE** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_type_code>

Limit Type Description <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	**Parameter Description** <https://epa.gov/envirofacts/metadata/column/icis/ref_parameter/parameter_desc>	**Monitoring Location** <https://epa.gov/envirofacts/metadata/column/icis/ref_m
Enforceable	Chlorine, total residual	Effluent Gross
Enforceable	E. coli	Effluent Gross
Enforceable	Enterococci	Effluent Gross
Enforceable	Fecal coliform	Effluent Gross
Enforceable	Flow, in conduit or thru treatment plant	Effluent Gross
Enforceable	Oil & Grease	Effluent Gross
Enforceable	Oxygen, dissolved [DO]	Effluent Gross
Enforceable	pH	Effluent Gross
Enforceable	Temperature, water deg. centigrade	Effluent Gross
Enforceable	Turbidity	Effluent Gross

Limits Report (Dockets)

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Chlorine, total residual	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Milligrams per Liter	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	E. coli	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Number per 100 Milliliters	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Enterococci	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_seas
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Number per 100 Milliliters	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Enterococci	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_seas

STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Number per 100 Milliliters	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permi
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nm
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Fecal coliform	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Most Probable Number (MPN) per Gram	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_cod

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permi

LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nm
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Flow, in conduit or thru treatment plant	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Million Gallons per Day	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_cod

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Oil & Grease	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_seas
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>

DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Milligrams per Liter	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Oxygen, dissolved [DO]	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Milligrams per Liter	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb

LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	pH	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Standard Units	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmb
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	pH	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Standard Units	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_code

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permi
LIMIT TYPE DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nm
LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Temperature, water deg. centigrade	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code
LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_sea
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Degrees Centigrade	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_cod

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_perm
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LIMIT BEGIN DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_begin_date>	15-MAY-2019	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Turbidity	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code

LIMIT END DATE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_end_date>	30-APR-2020	**SEASON NUM** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_se
STATUS CHANGE REASON TEXT <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set_status/status_change_reason_text>		**STAY TYPE DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/stay_type_code>
DOCKET NUMBER <https://epa.gov/envirofacts/metadata/column/icis/icis_enf_regional_docket/regional_docket_nmbr>		**LIMIT VALUE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/limit_value_nmbr>
UNIT DESCRIPTION <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/unit_code>	Nephelometric Turbidity Units	**STATISTICAL BASE LONG DESCRIPTION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_value/statistical_base_coc

Measurements and Violations

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Chlorine, total residual	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>

PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	E. coli	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Enterococci	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Fecal coliform	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_n
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>

SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Flow, in conduit or thru treatment plant	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Oil & Grease	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Oxygen, dissolved [DO]	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm

LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	pH	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nr
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Temperature, water deg. centigrade	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	**NPDES** <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit_nm
LIMIT TYPE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_type_code>	Enforceable	**PIPE NUMBER** <https://epa.gov/envirofacts/metadata/column/icis/icis_perm_feature/perm_feature_nmbr>
SEASON NUM <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/limit_season_id>	0	**REPORT DESIGNATOR** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit_set/limit_set_designator>
PARAMETER CODE <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/parameter_code>	Turbidity	**MONITORING LOCATION** <https://epa.gov/envirofacts/metadata/column/icis/icis_limit/monitoring_location_code>

Compliance Schedules and Violations

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	NPDES <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit

No Compliance Schedules Found.

Compliance Schedule Violations

Schedule Number <https://epa.gov/envirofacts/metadata/column/icis/icis_npdes_violation/perm_schedule_event_id>	Data Source <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/activity_id>	Violation <https://epa.gov/envirofacts/metadata/colum
	3601859947	DMR, Limited - Overdue
	3601859947	DMR, Monitor Only - Overdue
	3601859947	DMR, Limited - Overdue
	3601859947	DMR, Limited - Overdue
	3601859947	DMR, Limited - Numeric Violation
	3601859947	DMR, Limited - Overdue

Pretreatment Inspections/Audits

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	NPDES <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit

No ICIS Pretreatment Inspections Found.

Pretreatment Performance Summary

FACILITY NAME (1) <https://epa.gov/envirofacts/metadata/column/icis/icis_facility_interest/facility_name>	VI WATER & POWER AUTHORITY	NPDES <https://epa.gov/envirofacts/metadata/column/icis/icis_permit/external_permit

No ICIS Pretreatment Performance Summary Information Found.

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Last updated on May 2, 2024

Figure 9. ICIS Report VIWAPA Randolp Harley Facility

Species Directory

All Species | ESA Threatened & Endangered | Marine Mammals | Sustainable Seafood

ESA Threatened & Endangered

NOAA Fisheries has jurisdiction over 165 endangered and threatened marine species (80 endangered; 85 threatened), including 66 foreign species (40 endangered; 26 threatened).

Additional species are currently under review or have been proposed for Endangered Species Act listing: 2 petitioned species awaiting a 90-day finding, 15 candidate species for ESA listing, 1 proposed species for ESA listing.

In the table below, the Region column shows if the species can be found in a NOAA Fisheries region. If the species occurs only in areas beyond the U.S. exclusive economic zone and territorial waters, the region is labeled as Foreign.

Species Name

Species Category

All

Protected Status

All

Region

Southeast

Display

25 Display All

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Atlantic Sturgeon *Acipenser oxyrinchus oxyrinchus*	**SPECIES CATEGORY** Fish - Protected Fish	Carolina DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		Chesapeake Bay DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		New York Bight DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		South Atlantic DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
							Southeast
		Gulf of Maine DPS	ESA Threatened	2012	Under Development	Final	New England/Mid-Atlantic Southeast
Blue Whale *Balaenoptera musculus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Boulder Star Coral *Orbicella franksi*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Elkhorn Coral *Acropora palmata*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2006	Final	Final	Southeast
False Killer Whale *Pseudorca crassidens*	**SPECIES CATEGORY** Whales **SPECIES CATEGORY** Dolphins & Porpoises	Main Hawaiian Islands Insular DPS	ESA Endangered	2012	Final	Final	Pacific Islands

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Fin Whale *Balaenoptera physalus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Giant Manta Ray *Mobula birostris*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Threatened	2018	Under Development	Not Prudent	New England/Mid-Atlantic Pacific Islands Southeast
Green Turtle *Chelonia mydas*	**SPECIES CATEGORY** Sea Turtles	Central South Pacific DPS	ESA Endangered	2016	Final	---	Pacific Islands
		Central West Pacific DPS	ESA Endangered	2016	Final	---	Pacific Islands
		Mediterranean DPS	ESA Endangered - Foreign	2016	---	---	Foreign
		Central North Pacific DPS	ESA Threatened	2016	Final	---	Pacific Islands
		East Pacific DPS	ESA Threatened	2016	Final	---	West Coast
		North Atlantic DPS	ESA Threatened	2016	Final	Final	New England/Mid-Atlantic Southeast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		South Atlantic DPS	ESA Threatened	2016	Final	---	Southeast
		East Indian-West Pacific DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		North Indian DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		Southwest Indian DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		Southwest Pacific DPS	ESA Threatened - Foreign	2016	---	---	Foreign
Gulf Sturgeon *Acipenser oxyrinchus desotoi*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Threatened	1991	Final	Final	Southeast
Hawksbill Turtle *Eretmochelys imbricata*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	Final	Pacific Islands Southeast
Humpback Whale *Megaptera novaeangliae*	**SPECIES CATEGORY** Whales	Central America DPS	ESA Endangered	2016	Under Development	Final	West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		Western North Pacific DPS	ESA Endangered	2016	Under Development	Final	Alaska
		Arabian Sea DPS	ESA Endangered - Foreign	2016	Final	---	Foreign
		Cape Verde Islands/Northwest Africa DPS	ESA Endangered - Foreign	2016	Final	---	Foreign
		Mexico DPS	ESA Threatened	2016	Under Development	Final	Alaska West Coast
Kemp's Ridley Turtle *Lepidochelys kempii*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	---	New England/Mid-Atlantic Southeast
Killer Whale *Orcinus orca* **Also Known As** Orca	**SPECIES CATEGORY** Dolphins & Porpoises **SPECIES CATEGORY** Whales	Southern Resident DPS	ESA Endangered	2005	Final	Final	Alaska West Coast
Leatherback Turtle *Dermochelys coriacea*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	Final (U.S. Caribbean) Final (U.S. West Coast)	New England/Mid-Atlantic Pacific Islands Southeast West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Lobed Star Coral *Orbicella annularis*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Loggerhead Turtle *Caretta caretta*	**SPECIES CATEGORY** Sea Turtles	North Pacific Ocean DPS	ESA Endangered	2011	Final	No	Pacific Islands West Coast
		Mediterranean Sea DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		Northeast Atlantic Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		North Indian Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		South Pacific Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		Northwest Atlantic Ocean DPS	ESA Threatened	2011	Final	Final	New England/Mid-Atlantic Southeast
		South Atlantic Ocean DPS	ESA Threatened - Foreign	2011	---	---	Foreign
		Southeast Indo-Pacific	ESA Threatened	2011	---	---	Foreign

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		Ocean DPS	- Foreign				
		Southwest Indian Ocean DPS	ESA Threatened - Foreign	2011	---	---	Foreign
Mountainous Star Coral *Orbicella faveolata*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Nassau Grouper *Epinephelus striatus*	**SPECIES CATEGORY** Fish - Protected Fish - Reef Fish	Species	ESA Threatened	2016	Under Development	Proposed	Southeast
North Atlantic Right Whale *Eubalaena glacialis*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	2008; 1970 (original)	Final	Final	New England/Mid-Atlantic Southeast
Oceanic Whitetip Shark *Carcharhinus longimanus*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Species	ESA Threatened	2018	Under Development	Not Prudent	New England/Mid-Atlantic Pacific Islands Southeast West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Olive Ridley Turtle *Lepidochelys olivacea*	**SPECIES CATEGORY** Sea Turtles	Mexico's Pacific coast breeding populations	ESA Endangered	1978	Final	---	West Coast
		All other populations	ESA Threatened	---	---	---	Pacific Islands Southeast West Coast
Pillar Coral *Dendrogyra cylindrus*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Proposed - Endangered	---	---	---	Southeast
		Species	ESA Threatened	2014	Under Development	Final	Southeast
Queen Conch *Aliger gigas* **Also Known As** Strombus gigas, Lobatus gigas, Conch, Pink conch, Carrucho, Caracol reina	**SPECIES CATEGORY** Invertebrates - Protected Invertebrate - Wild-Caught Seafood	Species	ESA Threatened	2024	---	---	Southeast
Rice's Whale *Balaenoptera ricei*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	2019	---	---	Southeast
Rough Cactus Coral	**SPECIES CATEGORY** Invertebrates	Species	ESA Threatened	2014	Under Development	Final	Southeast

Species Directory

All Species | ESA Threatened & Endangered | Marine Mammals | Sustainable Seafood

ESA Threatened & Endangered

NOAA Fisheries has jurisdiction over 165 endangered and threatened marine species (80 endangered; 85 threatened), including 66 foreign species (40 endangered; 26 threatened).

Additional species are currently under review or have been proposed for Endangered Species Act listing: 2 petitioned species awaiting a 90-day finding, 15 candidate species for ESA listing, 1 proposed species for ESA listing.

In the table below, the Region column shows if the species can be found in a NOAA Fisheries region. If the species occurs only in areas beyond the U.S. exclusive economic zone and territorial waters, the region is labeled as Foreign.

Species Name

Species Category

All

Protected Status

All

Region

Southeast

Display

25 Display All

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Scalloped Hammerhead Shark *Sphyrna lewini*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Eastern Pacific DPS	ESA Endangered	2014	---	No	West Coast
		Eastern Atlantic DPS	ESA Endangered - Foreign	2014	---	---	Foreign
		Central & Southwest Atlantic DPS	ESA Threatened	2014	---	No	Southeast
		Indo-West Pacific DPS	ESA Threatened	2014	---	No	Pacific Islands
Sei Whale *Balaenoptera borealis*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
							Pacific Islands Southeast West Coast
Shortnose Sturgeon *Acipenser brevirostrum*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Endangered	1967	Final	---	New England/Mid-Atlantic Southeast
Smalltooth Sawfish *Pristis pectinata*	**SPECIES CATEGORY** Fish - Protected Fish	U.S. Population	ESA Endangered	2003	Final	Final	Southeast
		Non-U.S. Population	ESA Endangered - Foreign	2014	---	---	Foreign
Sperm Whale *Physeter macrocephalus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Staghorn Coral *Acropora cervicornis*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2006	Final	Final	Southeast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Mycetophyllia ferox	- Corals						

1 2 Last »

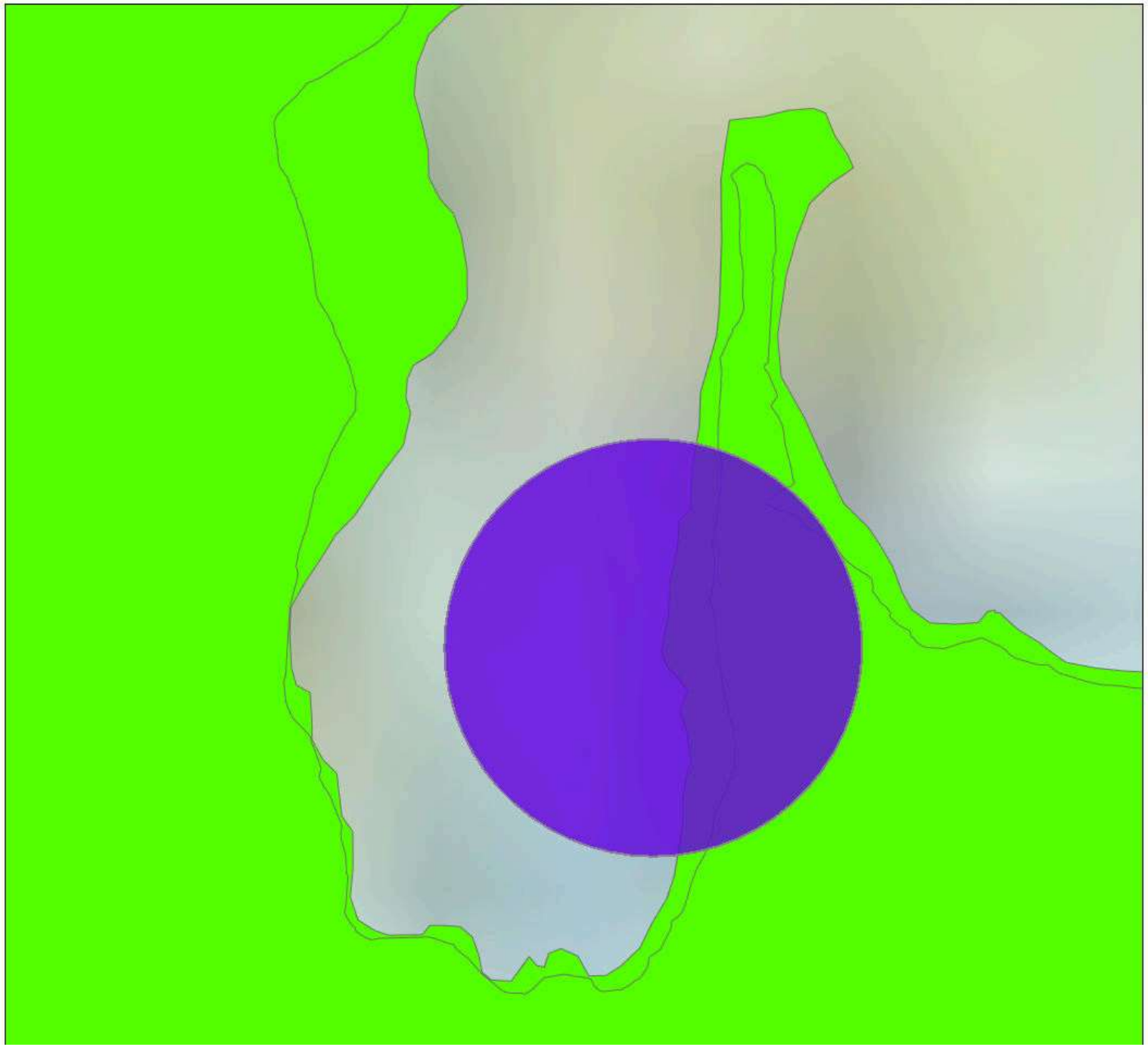
Figure 10. ESA Listed species in the Southeast Region

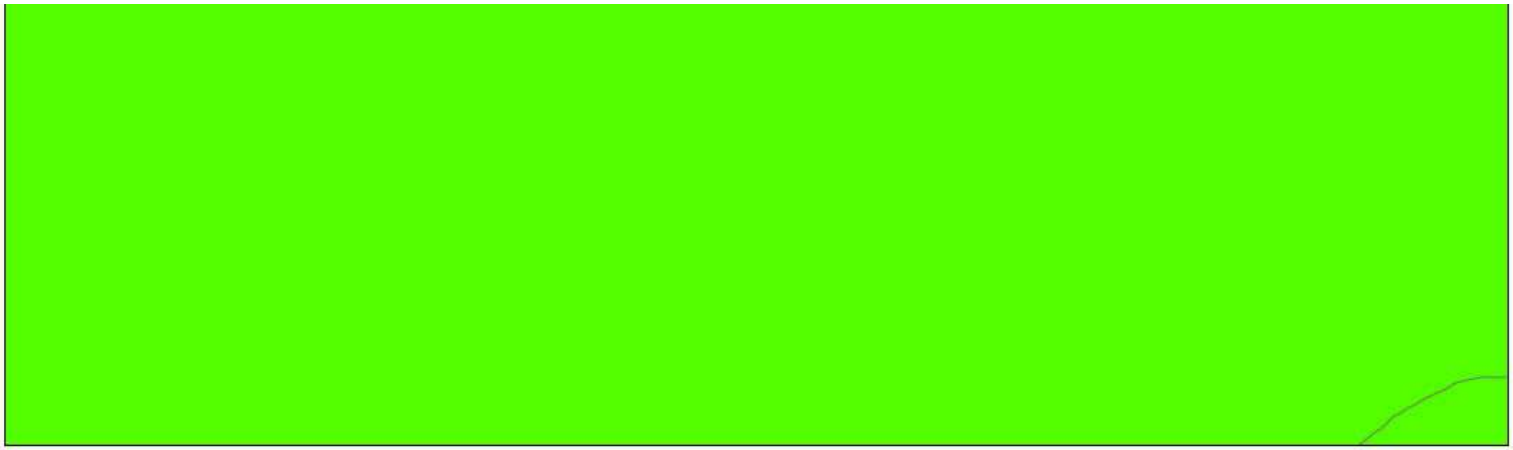
Critical Habitat Report St. Thomas Harley Plant

Area of Interest (AOI) Information

Area : 0.15 km²

Jun 9 2024 6:50:19 Bolivia Time





All_critical_habitat_poly_20230502

1:4,514

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

General Bathymetric Chart of the Oceans (GEBCO); NOAA National Centers for Environmental Information (NCEI), NOAA National Marine Fisheries Service

Summary

Name	Count	Area(km²)	Length(m)
All Critical Habitat Polyline	0	N/A	0
All Critical Habitat Polygon	7	0.38	N/A

All Critical Habitat Polygon

#	Scientific Name	Common Name	Listed Entity	Area(km²)
1	Mycetophyllia ferox	Coral, rough cactus	Coral, rough cactus	0.04
2	Acropora palmata	Coral, elkhorn	Coral, elkhorn	0.06
3	Acropora cervicornis	Coral, staghorn	Coral, staghorn	0.06
4	Orbicella franksi	Coral, boulder star	Coral, boulder star	0.06
5	Orbicella annularis	Coral, lobed star	Coral, lobed star	0.06
6	Orbicella faveolata	Coral, mountainous star	Coral, mountainous star	0.06
7	Dendrogyra cylindrus	Coral, pillar	Coral, pillar	0.06

Figure 11. NOAA Critical Habitat Mapper

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

St. Thomas County, Virgin Islands

Local office

Caribbean Ecological Services Field Office

(939) 320-3135
(787) 851-7440
CARIBBEAN_ES@FWS.GOV

MAILING ADDRESS
Post Office Box 491
Boqueron, PR 00622-0491

PHYSICAL ADDRESS
Office Park I
State Road #2 Km 156.5, Suite 303}
Mayaguez, PR 00680

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
West Indian Manatee Trichechus manatus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4469	Threatened Marine mammal

Birds

NAME	STATUS
Roseate Tern Sterna dougallii dougallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2083	Threatened

Reptiles

NAME	STATUS
Virgin Islands Tree Boa Chilabothrus granti Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3247	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

Figure 12. FWS iPaC Species List

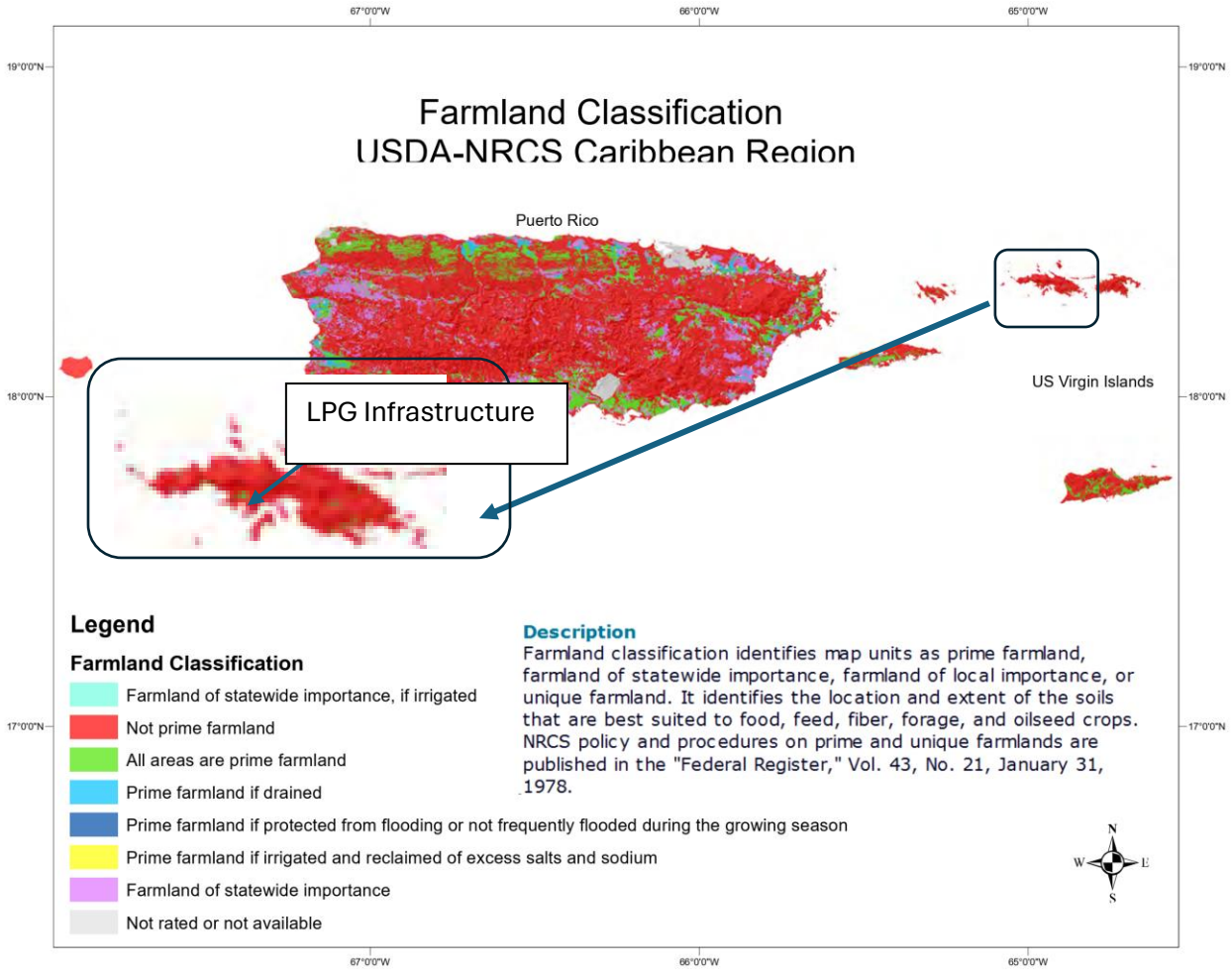


Figure 13. The USDA – NRCS Farmland Classification Map for Puerto Rico and the USVI. The VIWAPA Plant is not on Prime Farmland.

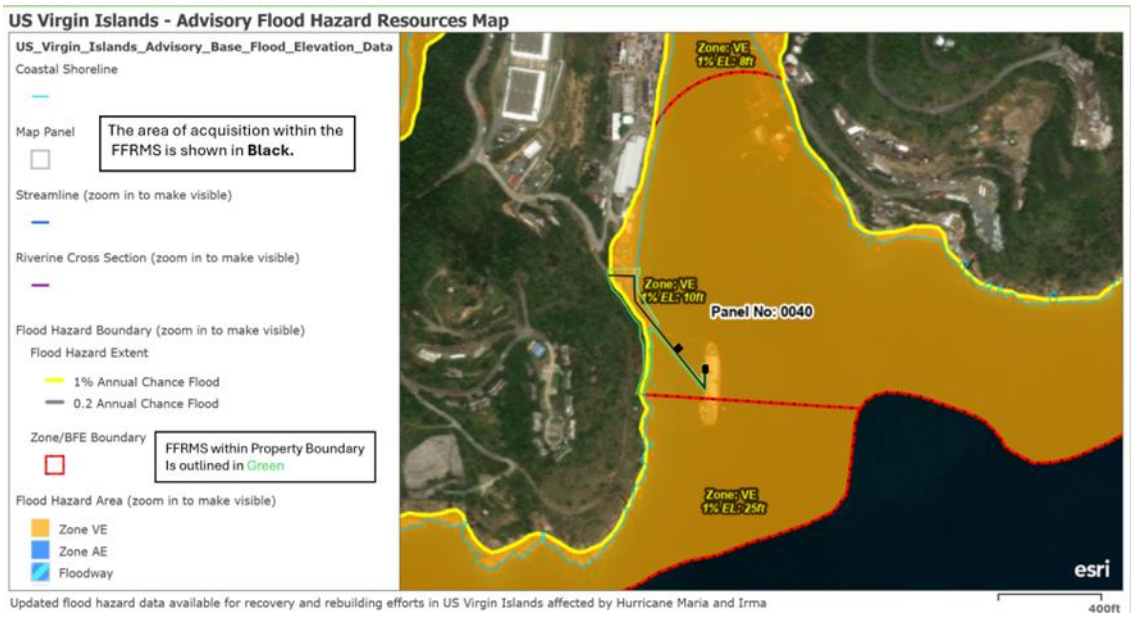


Figure 14. The LPG infrastructure being acquired is shown in black.

Early Notice and Public Review of a Proposed
Activity in a Federal Flood Risk Management Standard Designated Floodplain
May 24, 2024

To: All interested Agencies U.S. Army Corps of Engineers, Federal Emergency Management Agency Office of the Governor, Region II Environmental Protection Agency, National Oceanographic and Atmospheric Administration, U.S. Fish and Wildlife Service Department of Planning and Natural Resources, Territorial Emergency Management Agency, Department of Public Works, Economic Development Authority, Virgin Islands Port Authority, Groups, and Individuals

This is to give notice that the Virgin Island Housing Finance Authority (VIHFA) under their authority as Responsible Entity pursuant to 24 CFR Part 58.4 has determined that the following proposed action of the acquisition of the Liquid Propane Gas (LPG) infrastructure at the Randolph Harley Power Generating Facility in Charlotte Amalie, St. Thomas under the U.S. Department of Housing and Urban Development Community Development Block Grant-Mitigation (CDBG-MIT) grant, Grant Number B-18-DP-78-0002 is located in the Federal Flood Risk Management Standard (FFRMS) floodplain and VIHFA will be identifying and evaluating practicable alternatives to the acquisition of the LPG infrastructure within the FFRMS floodplain and the potential impacts on the FFRMS floodplain as required by Executive Order 11988, as amended by Executive Order 13690, in accordance with HUD regulations at 24 CFR 55.20 in Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. The proposed project is located with the Virgin Islands Water and Power Authority's (VIWAPA) Randolph Harley Power Plant. The Harley Power Plant is located on Parcel Nos. 35, 35E, Tract 1 of Rem 35, and 35A-1 Subbase Crown Bay and Tract 4 of 4 Estate Krum Bay, in Charlotte Amalie, St. Thomas **(**18˚.327431N Latitude and -64˚962033W Longitude) (Figure 1). The power plant produces all of the public power and water for the island of St. Thomas and St. John. The plant includes reverse osmosis water production plants, NOX Water Storage, Boilers, Line Department Office, 6 fuel oil storage tanks, waste oil tanks, 6 gas turbines, a powerhouse, transformer storage, chemical storage, a spill cleanup warehouse, used oil storage, a temporary storage yard, office buildings, storage warehouses, a substation, a fuel pier, outfalls, and submerge seawater intake. The Liquid Propane Gas (LPG) infrastructure is located to the south of the main power plant. The LPG infrastructure is currently owned by Vitol LLC. CDBG-DR MIT funds are proposed for the acquisition of the LPG infrastructure including the fuel loading arms, LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The location of the Power Plant and the LPG infrastructure proposed to be acquired is functionally dependent on access to navigable water. The LPG infrastructure is in place and in operation.

The acquisition of the infrastructure is critical to USVI's energy supply. The piers, infrastructure, and equipment (e.g., LPG system pumps, pipes, and fire suppression system) to be acquired, need to be in close proximity to the water to serve their purpose (i.e., offload and transport of LPG from cargo ships to storage tanks).

The Harley Power facility is located on the south shore of St. Thomas in Krum Bay. The shoreline and offshore waters are within FEMA 100-year flood zones. The extent of the FFRMS floodplain is 0.5 acre as determined by the Freeboard Value Approach (FVA). The facility is a Critical Action as defined by 24 CFR 55.2(b)(3)(i) (the acquisition of facilities which store highly volatile materials for a power generating plant). The FFRMS floodplain as determined by the FVA was determined to be 13 ft. An ABFE map that was used to define the base flood elevation for the freeboard value approach can be found here: http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=a92ce1763cb5416dafa01b84757a5af9 (Figure 2). The 0.5 acres of FFRMS floodplain includes areas of the existing fuel pier which is located in VE1% EL: 10ft which encompasses all of Krum Bay and extends along the shoreline to the north and south. The VE 1% EL:10ft is where it has been determined that there is a 1% chance of coastal flooding with velocity (wave action) to elevation 10ft. Moving inland the site is within FEMA flood Zone X where 100-year coastal flooding is not expected. However, in order to address increasing hazards utilizing the FVA for critical actions, the FFRMS floodplain extends to 13ft of elevation. The fuel loading arms, part of the LPG pipelines from the fuel dock to the LPG storage tanks, and the fire suppression system, are within the VE flood zones and part of the LPG pipelines from the fuel dock to the LPG storage tanks are within the FFRMS floodplain (Figure 4).

The LPG infrastructure to be acquired is on 0.1 acres of the 0.5-acre FFRMs floodplain. The assets that will be acquired include the marine loading arm, piping (supply lines) from the dock to the tanks, vaporizing skids as well as firefighting equipment. The occupied 0.1-acre floodplain is a highly altered filled coastline adjacent to an industrial plant and as such does not provide habitat for flora or fauna. The shoreline is filled land and does not have any historic or cultural use and is not used for any recreational purposes. The site does allow for erosion control and has a water quality function as sheet flow passes across the graveled shoreline. The existing LPG infrastructure does not have a negative impact on the floodplain as the piping and loading arm and related mechanical equipment is all elevated above ground level and does not impede stormwater or runoff.

There are three primary purposes for this notice. First, people who may be affected by activities in the floodplain and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplain, alternative methods to serve the same project purpose, and methods to minimize and mitigate project impacts on the [floodplain/wetland]. Second, an adequate public notice program can be an important public educational tool. The dissemination of information and request for public comment about floodplain can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplain, it must inform those who may be put at greater or continued risk.

Written comments must be received by VIHFA at the following address on or before on June 8, 2024, VIHFA Virgin Islands Housing Finance Authority, 3202 Demarara Plaza, Suite 200, St. Thomas, VI 00802-6447 and (340) 777-4432, Attention: Attention: Ms. Dayna Clendinen, Chief Disaster Recovery Officer, during the hours of 9:00 AM to 5:00 PM. Comments may also be submitted via email at media@vihfa.gov.

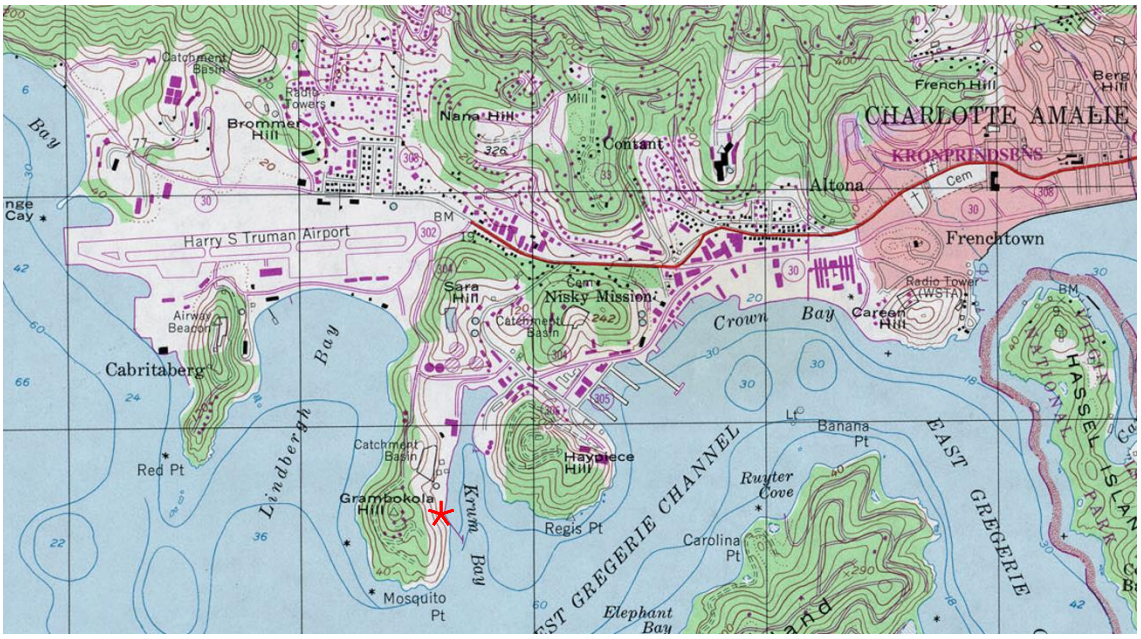


Figure 1.Central St. Thomas Quadrangle Map, U.S. Virgin Islands 7.5 Minutes Series : Project Location shown as red star.

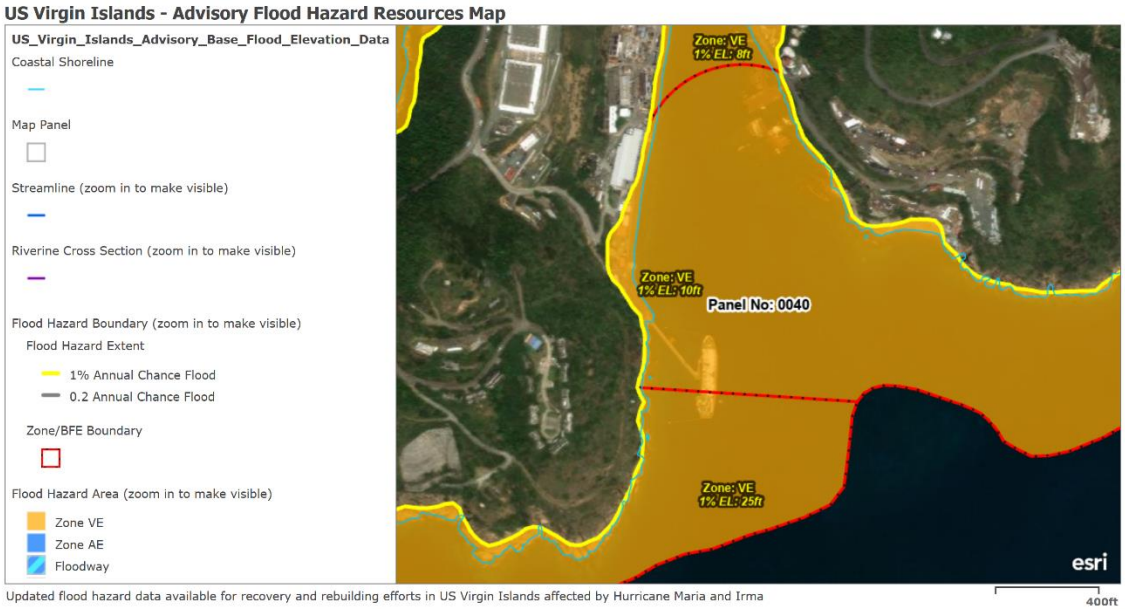


Figure 2. Advisory Base Flood Elevation map used to determine the base flood elevation for the freeboard value approach.

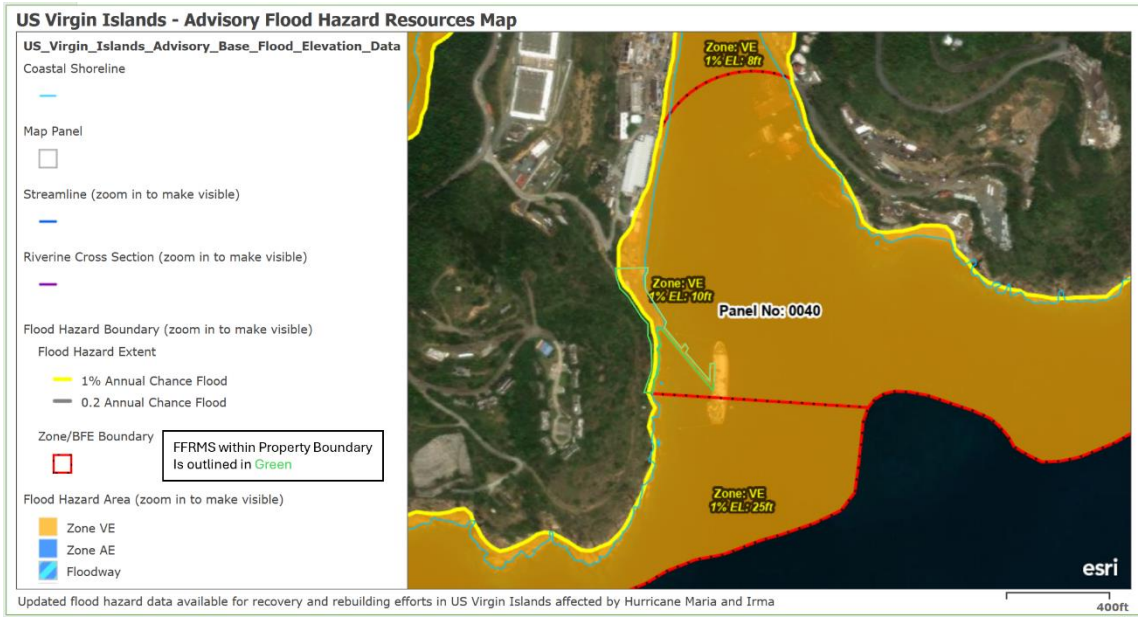


Figure 3. FEMA Flood Zone VE, Flood Zone X and FFRMS Floodplain within the VIWAPA Property containing the LPG Infrastructure.

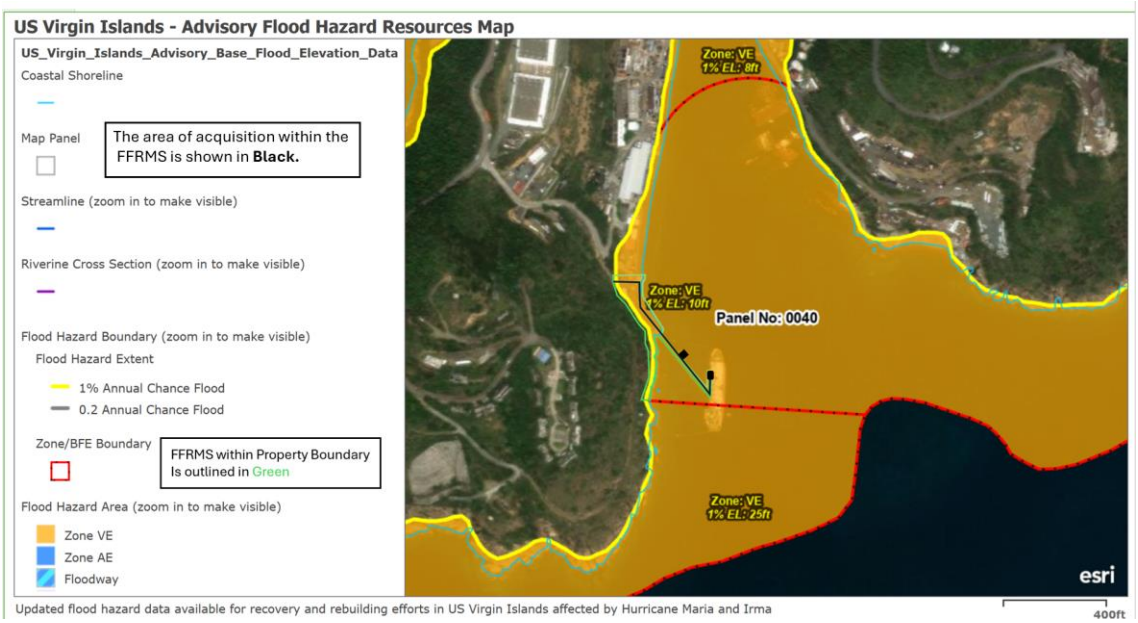


Figure 4. The area of acquisition within the FFRMS is shown in black.

Figure 15. Early Notice Published May 24, 2024

Name of Project: VIWAPA - Propane Supply Infrastructure Acquisition

Location: St. Thomas: 105203040100; 105204050118 & St. Croix 202800030600

Activity: Acquisition of the Propane Supply Infrastructure on St. Croix and St. Thomas

VIRGIN ISLANDS DEPARTMENT OF PLANNING AND NATURAL RESOURCES -
HISTORIC PRESERVATION AND CULTURAL RESOURCES ASSESSMENT

The activities and location of the proposed project have been analyzed and assessed and, to the best of my knowledge, the following situations apply:

(1) Does the proposed project area contain any property listed on the National Register of Historic Places?

Yes ○ No ◉

(2) Are there any other properties within the vicinity of the project that appears to be historic or fit to be listed or are already listed in the National Register?

Yes ◉ No ○

(3) Is yes, will the proposed project have any adverse impact on these resources?

Yes ○ No ◉

(4) Describe the design features necessary to minimize any potential impact on historic or cultural resources.

(5) Is the Section 106 Compliance Process required?

Yes ○ No ◉

(6) Initial Survey required:

A. Phase A (☐) B. Phase 1 (☐)
C. Phase 2 (☐) D. Monitoring (☐)
E. Other (☐) Please describe: _____

(7) Other comments:

In review of the CDBG MIT application, it was noted that there is no discussion on the offshore moorings for the propane supply ships. Are these moorings already the property of the GVI?

Name (Print): Sean L. Krigger Signature: Sean L. Krigger

Title: Director and Deputy SHPO Date: May 15, 2024

Organization: DPNR - Virgin Islands State Historic Preservation Office

Figure 16. VI SHPO concurrence that 106 Compliance Process is not required.

Figure 17. Sole Source Aquifer Map St. Thomas Facility

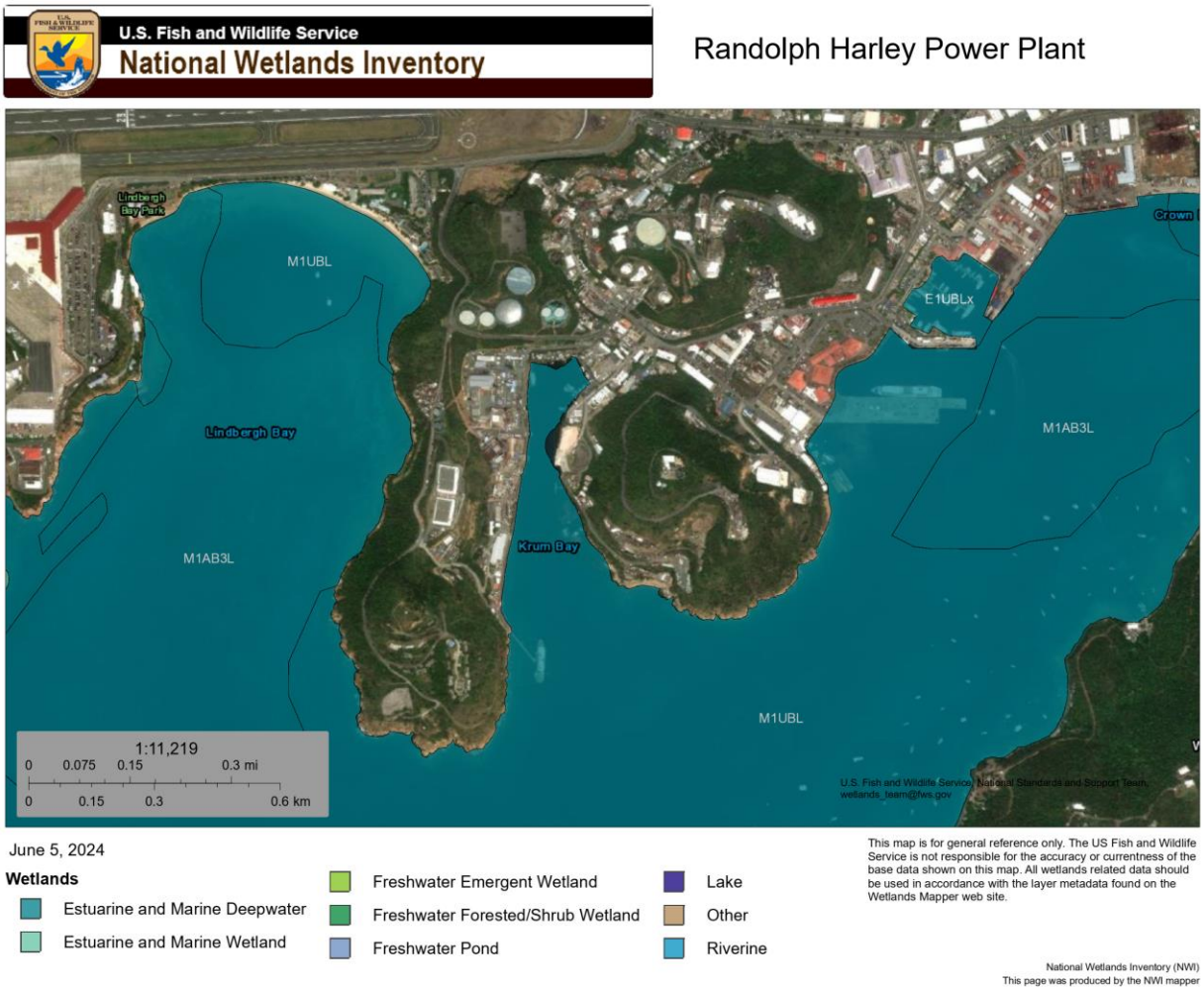


Figure 18. FWS Wetland Map of the Richmond Facility, no wetlands are impacted by the LPG infrastructure.

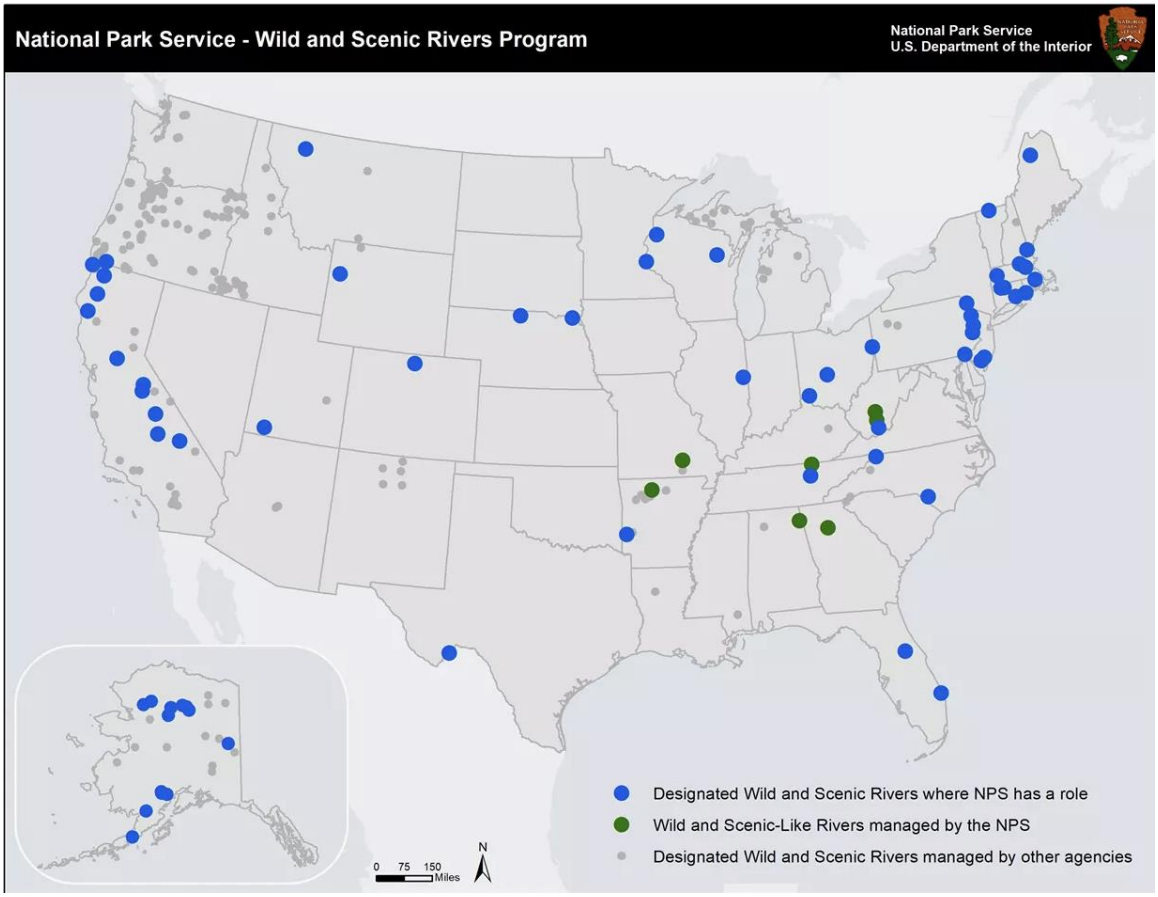


Figure 19. The are no rivers in St. Thomas, but there area NPS projected area on St. Thomas, neither of which is impacted by this project

Figure 20. Low- and Moderate-Income Census Tract Map. Randolph Harley facility is indicated by the red star.

Randolph Harley

Property Information

Property ID	206702015100
Location	16 SION FARM HOUSING DEVELOPMENT
Owner	GATES PATRICIA & RAPHAEL BRATHWAITE JR

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

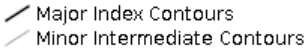
US Virgin Islands makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 06/2023
Data updated 06/2023

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Map Theme Legends

Topography



ENVIRONMENTAL ASSESSMENT REPORT FOR RANDOLPH E. HARLEY POWER PLANT (POWER PLANT) PROPANE CONVERSION PROJECT

Krum Bay, St. Thomas U.S. Virgin Islands

Prepared for:

THE OFFICE OF COASTAL ZONE MANAGEMENT
DEPARTMENT OF PLANNING AND NATURAL RESOURCES,
AND THE GOVERNMENT OF THE VIRGIN ISLANDS

Prepared by:

ENVIRON INTERNATIONAL CORPORATION

BIOIMPACT, INC.

JUNE 30, 2014

Pond will, through multiple outlets, discharge to the storm water catchment area for WAPA's Outfall 005, which discharges into Krum Bay.

The terminal drainage system has also been designed to ensure that sections subject to a possible propane leak remain full of water, to ensure that propane does not travel down / through the site drainage system. Potentially contaminated run-off from rainwater/firewater categorized as "AOC" Accidentally Oil Contaminated, from the pumping, equipment / piping manifold between the two mounds will be connected to OWS-101 to ensure less than 10 mg/L (ppm) oil content at the outlet. Immediately downstream of the separator, an inspection chamber will be fitted so as to monitor oil and grease (O&G). The Detention Ponds will reduce storm water quantity and provide solids control. An engineered sample port / valve will be installed in the terminal storm water discharge line to monitor Total Suspended Solids (TSS). The TSS discharge limit during storm events for WAPA Outfall 001 is 50 mg/L.

5.01.h Maintenance Schedule for Storm Water Facilities

The applicant will inspect storm water facilities on a weekly basis and after all major rainfall events. WAPA currently holds a TPDES permit which requires regular maintenance of the storm water systems within the Power Plant.

5.01.i Method of Sewerage Disposal

The facility office will have four restrooms, two showers and an employee break room with a sink. Public sewer is not available; therefore an on-site waste water treatment system for the offices will be constructed. This system will be connected to a packaged treatment sewage unit. The effluent from the unit will comply with DPNR/DEP regulations and will be discharged into a soak-away pit. Sanitary pipes will be PVC.

5.01.j Method of Construction

Overview of Construction of Terminal Facilities

Construction of the Terminal Facilities should begin in February of 2014. Construction of the Docking Facilities will begin when permits are acquired. The project is scheduled to be operational in the 4th quarter of 2014. The basic overview of the Terminal Facilities project is as follows:

1. See the SWPPP in the Appendix at Exhibit B for a detailed discussion of sedimentation and erosion control during construction.

2. Install 36" silt fencing around the site and North and South Detention Ponds.
3. Clear site.
4. Grade site. This will be done using conventional mechanical (ripping) equipment and excavators. Very hard rock will be blasted in a series of small, controlled detonations. Accredited experts in explosive uses will supervise all detonations. Detonations will be authorized pursuant to 23 VIC § 712. All required precautions will be used. Offsite testing of detonation methods will be done before use on the site. During these tests, the seismic impact of the detonations will be monitored to control impact to surrounding facilities and the environment. Excavation will be followed by stabilization.
5. Construct base for tanks and pump/compressor.
6. Install tanks. The tanks will be fabricated and tested in accordance with ASME VIII Div. 2 standards by the manufacturers in Belgium. The tanks will arrive via ship in the second quarter of 2014. For final placement, the tanks will be lifted onto self-driving bogies and driven into position.
7. Plumb the mounds, erect mound structures, fill the mounds with clean, dry and compacted fill, install waterproof membrane and finish the mounds with stone or pebble finishing.
8. Construct vaporizers and steam boilers.
9. Construct ancillary facilities such as office, piping, firefighting equipment, drainage and roads.
10. Install mechanical, electrical and instrumentation.
11. Commission Terminal Facilities pursuant to detailed commissioning procedures supervised by an experienced commissioning engineer.

Overview of Construction of Dock Facilities

The project schedule is attached in the Appendices at Exhibit A. The basic overview of the Docking Facilities project is as follows:

1. Marine contractor mobilizes.
2. Conduct real time underwater benthic survey and mark pile locations.
3. Install turbidity barriers for pilings described in step 4.
4. Install two (2) new piles to act as mooring points for vessels breasting lines.
5. Relocate turbidity barriers for pilings described in step 6.
6. Install four (4) new piles to support a new fire pump skid.
7. At this time, WAPA will accept a fuel delivery. After this delivery, fuel deliveries will be suspended until the conclusion of dock modifications.
8. Relocate turbidity barriers for pilings described in step 9.

9. Install two (2) new piles to act as breasting dolphins and install two (2) new fenders.
10. Recover turbidity barriers and deploy containment boom.
11. Remove derrick crane and operator cabin from loading platform.
12. Install Marine Loading Arm foundation framework.
13. Install a new 6" Marine Loading Arm.
14. Install a new operator work platform on approach way.
15. Install fire pump skid.
16. Remove the buoy mooring system, block anchor and associated shore chain.
17. Marine Contractor demobilizes.
18. Mechanical and electrical contractors mobilize.
19. Re-install containment boom.
20. Install water piping works along the trestle for fire-fighting purposes.
21. Install lighting.
22. Remove containment boom.
23. Mechanical and electrical contractors demobilize.
24. Total duration of pile driving activities is estimated at 8 days.
25. Total duration of all dock construction activities is estimated at 2 months.

Detailed Description of Activities

Site Clearance

Clear the site by cutting all trees and grubbing all stumps, brush and shrubs, removing all loose boulders and existing structures including foundations. Dispose of all materials to disposal area as shown on drawings or directed by the Owner/Engineer.

Lay Down Yard

The project will use a lay down yard at the corner of Airport Road and Krum Bay Road. This area is highly impacted and is the result of the excavation of the hill as part of FAA safety requirements.. The area has been used as a lay down or storage area for VIPA, WAPA and DPW in the past. The area will be fenced with four foot high boarding at the lower level such that local schools may come and decorate it. This will be done by placing a row of 4" x 8' ply sheets along the bottom portion of the fence. The upper portion will be chain link. It is expected that the lay down yard will be used for several months.

Detonations

Maximum precautions shall be taken for protection of personnel and property. The Contractor shall be responsible for obtaining all necessary approvals and permits. The Contractor shall assign an experienced blasting specialist to supervise all blasting operations. The blasting specialist shall be experienced in the use of explosives for foundation excavations.

Throughout the clearance phase:

- A water truck with appropriate spray hoses will be available to damp down the area in the event of dust creation.
- Waste bins will be covered before leaving the site
- At the end of the clearance phase, the site will be graded to the proposed project elevations.

Construction Fencing

Where existing fencing is deemed inadequate or missing, temporary fencing will be erected to secure the construction site. The temporary fencing will be made up of self-supporting 'Heras' fence panels interlocked with each other and any existing fence using bolted panel clips.

Installation of Silt Fencing and Construct Detention Ponds

Silt fences will be constructed (placed) around the terminal area, the downhill side of the pipeway area, around the downhill sides of the office building area, and around the vaporizer station area. The silt fence is purposely installed to follow the contours, typically in curves, with the depth of each planned to be 6-9". The fence will be laid into a trench and backfill compacted against it such that the overall height of the fence is approximately 36." Metal posts will be driven manually to appropriate depth and the fence tied / stapled to it. The fence will be routinely inspected to ensure it is not damaged and immediately repaired as necessary.

Two detention ponds will be constructed, the North Pond will be about 270 square meters (2,906 sq ft) with about 1.2 meter (3.9 ft) depth and the South Pond will be about 400 square meters (4,306 sq ft) with about a 1.2 meter (3.9 ft) depth and will receive the run off collected by the ditches constructed around the outer edge of the terminal.

Final grading and construction of the base raft for the mounds

Perform all rough and finish grading required to accommodate the works. Use all means necessary to prevent erosion of graded areas during construction. All soil embankment slopes

shall be to a gradient of 1 to 4, and protected from erosion with a geotextile filler fabric and loosely placed hard stone.

A hardcore or blinding concrete shall be laid across the mound foundation to a depth of approximately 40mm (1.5") to provide a clean surface for steel reinforcement works. The base slab for the mounds is designed to be a continuous raft over the entire mound footprint to ensure that:

- Tank / mound loads are adequately spread.
- Differential settlement between tanks does not occur.
- In event of earthquake, differential movement between tanks, piping, and equipment does not occur, it all moves as one!

Reinforcement details have yet to be developed, but the overall slab is intended to be 450mm (18") and locally thickened at the tank saddle (founding) positions to approximately 1m (40"). The slab will have integrated concrete footings on which the tank saddles will be placed. Clearance between TOC and underside of tank will be approximately 1.4m.

The overall base raft consists of two mound slabs plus the intermediate piping / pump / compressor slab. Each is to be poured continuously to avoid construction joints and in the order of (1) mound 1, (2) mound 2 and finally (3) pump / compressor slab. Reinforcement design will allow each of the pours to be tied together to create a continuous raft with any expansion / construction joints made outboard of the mounds within the pump / compressor slab.

Installation of Storage Tanks

The tanks are being fabricated / hydrotested in accordance with ASME VIII Div 2 off site in Belgium, and will be shipped no later than the 30th of April 2014. Provisionally, all tanks will arrive on one ship in the USVI early in June and are to be transshipped at either the Wilfred "Bomba" Allick Port and Transshipment Port (Container Port) or the Molasses Dock on the southern side of St Croix. The storage tanks will be lifted onto self-driving bogies (two per storage tank) and then driven onto a barge which will be sailed to the offloading site. After placement of suitable ramps from shore to barge and driving mats across the foreshore area, they will be driven off the barge and into position on the foundation raft. This process is to be repeated until all the tanks are in position.

Construction of Mounds

After first scabbling the base slab concrete to form a key at the base of the retaining walls, the steel reinforcement plus inside shutters are to be erected. The mound tell-tale pipes are also to be installed at this time, followed by the outside shutter in readiness to receive concrete. The total height of the wall is circa 9m. Both good scaffold access along the length of the pour, and use of hydraulically operated concrete, are necessary to ensure safety and efficiency. After curing, shuttering is to be removed and filling the mound will commence. Each mound requires some 13,000 m3 of material. Early planning envisages use of a conveyor belt system to assist in placement with the material being loaded onto the conveyor by excavator. A fine sand will be used immediately around the storage tanks and wrapped in a geotextile, with the balance of the mound being filled with a coarser, locally available material. Placement will be staged in approximately 500mm layers to ensure that any voids are manually filled and that each layer is compacted. The total cover to the storage tanks is intended to be circa 1m and the top layers will contain a waterproof HDPE membrane to avoid rain water slowly filling the mounds with a stone / pebble finish under which there are land drains to effectively drain the areas. Paths and access steps have been incorporated to allow safe ingress / egress to operational areas atop the mounds.

Construction of Ancillary Facilities (Drainage, Roads, Fire Fighting, Office)

Once the heavy construction of the mounds has been completed, it will be possible to start installing the underground fire main and drainage lines and forming the site roads, which is anticipated to be done in parallel with the mechanical installation. Details and routes for drainage and fire main installation will involve trenching and laying HDPE / GRE piping at relatively shallow depths (invert approx. 1m). Where piping has to cross under trafficked areas, a reinforced spreader slab will be installed to avoid vehicle loads affecting the pipes. Roads are generally to be sloped outwards from the mounds at a gradient of 1% such that rainwater runs off to shallow open trenches running parallel to the road system and leading to the north detention pond and then to existing storm water outfall 001 belonging to WAPA.

The office building is to house the site electrical distribution system, control systems, and general offices plus a small store. It is currently arranged on one floor and will be a concrete / block work construction supported on a beam foundation.

Mechanical Installation

The overall mechanical system will be built in accordance with ASME B31.3, class 300.

Equipment is generally going to be procured from the states and shipped into the VI in containers which will be temporarily stored at the site until such time as the equipment is placed / installed.

Piping is relatively small in diameter (4", 6" and 8"). Much of it will be pre-fabricated off site and brought in ready for final field welds to assemble. Piping within the terminal and to the vaporizers is to be carbon steel, but in order to ensure cleanliness downstream of the turbine filter vessels, stainless piping will be utilized. Where possible, the pre-fabrication will include blasting and at least a holding primer to minimize in-field blasting. Paint will typically be applied by roller / brush to the specified DFT.

Field erected piping to / within the Power Plant area will be completed earlier in the overall program than the pump / compressor station area which can't effectively be started until the mounds are finished.

Piping components are all welded joined unless connecting to a piece of equipment (pump, valve, compressor, etc.) whereby a flange joint is made.

Suitable personnel access is to be provided to safely and ergonomically operate the various equipment.

Piping sections will be lifted into position by crane after supports are set with final alignment under direction of experienced pipe fitters. Pipe ends are to always be capped in the storage area to avoid dirt entering and to avoid potential for small animals assuming it is their new home.

Electrical, Instrument and Automation Installation

13.8KV will be supplied to an outdoor transformer (13.8/440V) local to the electrical room from WAPA's supply network. 440V will be distributed from the electrical distribution board (bottom entry) via above ground, cable rack / tray supported cable networks to end consumers. All electrical systems and end consumers will be suitably rated for the environment in which sited (Hazardous / non Hazardous).

Cable racks, ladders and tray routes will be installed and then the electrical contractor will pull individual cables into position before clipping off the rack / tray to secure and terminate each end with appropriate glands. Steel wire armored cable is to be used with safety cabling (fire / gas) being heat resistant.

The exception to the above ground cabling is the 13.8KV supply cable, which will be installed within conduit and laid next to the pipework leading from the dock.

A central control room will have the necessary HMIs installed via a DCS system to monitor and control the facility inclusive of displays / alarms / alerts for tank gauging, Hi Hi, ESD, fire and gas detection, pressure, flare, vaporizers, steam boilers, pumps, compressors, CTTV and security monitoring, etc.

Commissioning

The terminal will be commissioned under the supervision of an experienced commissioning engineer and in accordance with developed, site specific sets of commissioning instructions. The process is progressive from mechanical completion to pre-commissioning checks to propane commissioning with formal sign off at each stage required by both the operations and commissioning teams. Commissioning will not start unless all punch items relating to safety, operability, etc. have been signed off and agreed as complete.

Dock Facilities

Installation of a Marine Loading Arm

A new marine loading arm designed for propane, prevalent tidal range, and shuttle tanker characteristics will be installed on the dock. This loading arm will be fitted with an emergency breakaway coupling and remotely operated, fail safe shut down valves in the event of drift away.

Based on the foundation plate of the MLA, a contractor will diamond drill holes into the existing pile cap to receive anchor bolts (4-8 number) which will be grouted in place and allowed to cure prior to the MLA being installed.

Installation of a Fixed Water Curtain along Berthing Line

Low level 3” piping will be installed along the edge of the dock approximately 300mm (1’) in from the edge. This will be supported about 200mm (8”) off the concrete dock surface every 4-5m by a simple angle iron support.

Historic Use

The area was first used by the Navy as an electrical generating facility in the 1930's. WAPA took over the Power Plant in the 1970's. The site has been used for industrial purposes since the 1930's. On one of the older historical maps, a telegraph office is shown on the shoreline and fragments of old cables are found scattered across the bay.

Adverse Site Conditions

The typical wave and wave patterns have a minimal effect inside Krum Bay due to the constricted nature of the mouth of bay. The shoreline area and offshore areas are in Zones VE8 and VE10, areas of the 100-year coastal flooding where velocity (wave action) has been determined to be 8ft and 10ft respectively. The project area is primarily in Zone X where flooding is not expected (Figure 6.02-F.4 Flood Insurance Rate Map, Panel 40 of 94, revised April 16, 2007).

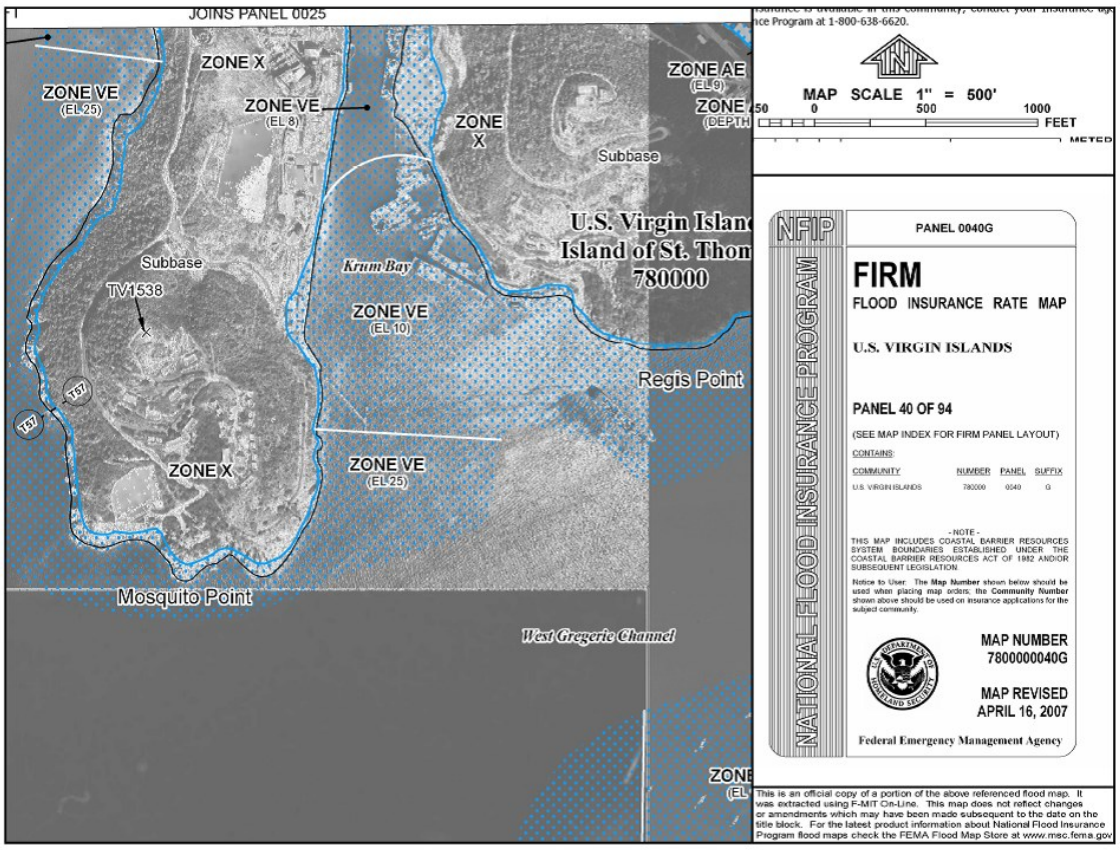


Figure 6.02-F.4 Flood Insurance Rate Map

Seismic Activity

The project will be built to exceed the 2012 International Building Code (which makes use of the 2008 USGS hazard data) requirements for Risk Category IV.

The U.S. Virgin Islands lie in one of the most earthquake prone areas of the world, and are susceptible to ground shaking, earthquake-induced ground failures, surface fault ruptures and tsunamis (tidal waves) (Hays, 1984). The activity is mostly associated with large-scale tectonic activity or faulting, originating in the Anegada Trough to the northeast of the islands. The trough and its related scarp apparently were thrown up by block faulting during the late Pliocene or early Pleistocene. It is oriented generally northeast to southwest, separating St. Croix from Puerto Rico and the other Virgin Islands. Based on willow focus earthquakes, the Anegada Fault Trough is estimated to be more than 400 miles in length. There are indications that strike slip movement is occurring, with St. Croix shifting northeast relative to Puerto Rico (Puerto Rico Water Authority 1970). Since the 1867 quake, there has been continuous low intensity activity all below 6.0 Richter. Over the last several years, numerous minor tremors have been felt on the island. This increased activity is associated with the volcanic eruptions that have been occurring to the southeast on the island of Montserrat.

Impact of Geology on Proposed Project

The applicant has carefully considered landform, geology, soils and historic land use. The project has been designed consistent with these conditions. The hardness of the rock will require that explosives be used to assist in the excavation of the tank mound site.

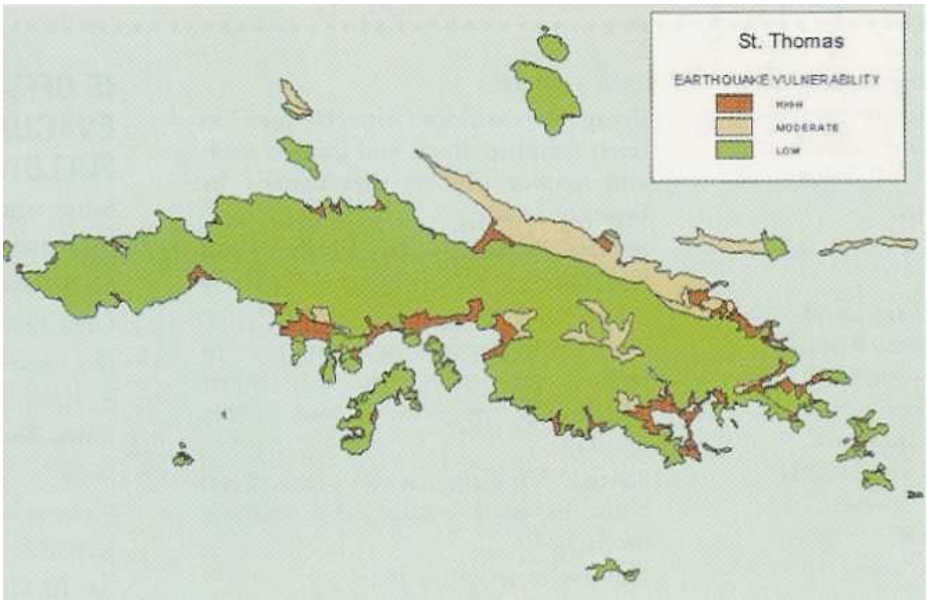


Figure 6.02-F.5 Earthquake Probability Map

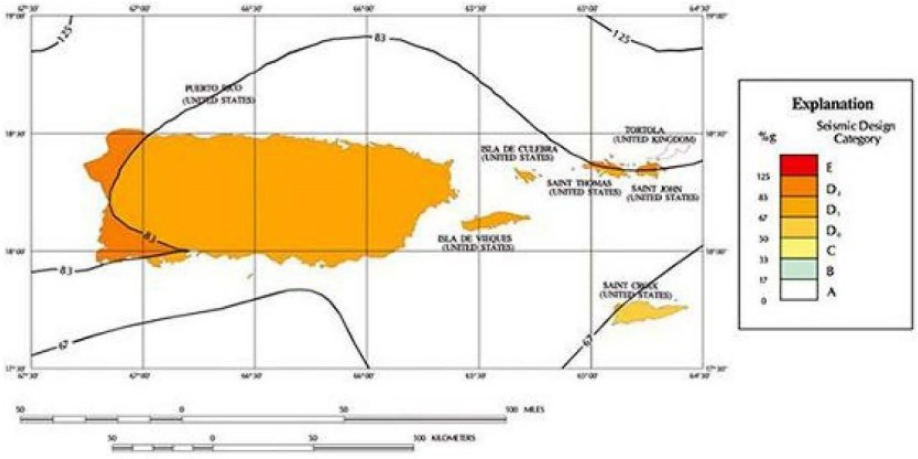


Figure 6.02-F.6 FEMA Seismic Design Category Map

6.03 Drainage, Flooding and Erosion Control

6.03.a Existing Drainage Patterns

The project site is on a narrow shelf between steep cliffs and a rip-rapped shoreline. Due to previous developments in this area, the majority of the watershed has been altered with much of the run-off from the upper portions of the watershed being intercepted and diverted from the

Power Plant area. At one time, a large water catchment to the Northwest captured much of the watershed area above the Power Plant and took it to a cistern. This catchment and collection has been removed and now run-off sheet flows across the site. A diversion berm diverts the run-off from the north face of the southern hill and the upper parts of the concrete roadway down to the sea prior to entering the developed areas of the Power Plant and discharges to the south of the exiting dock.

The site is not developed and steep with approximately 40% slopes that mainly consist of rock. The existing drainage pattern is from the road, along the ridge, to the east down towards Krum Bay. Topsoil is minimal due to the presence of rock.

Data on run-off in response to a 25 year 24 hour storm (8.4") and 10 yr 24 hr storm (6.47") pre-construction are presented in Table 6.03-T.1.

Table 6.03-T.1 Terminal on Top of Hill: Pre-Construction

Description	25 yr 24 hr Peak Discharge (cfs)	25 yr 24 hr Volume Discharged (cf)	10 yr 24 hr Peak Discharge (cfs)	10 yr 24 hr Volume Discharged (cf)
Northern Section: 1.25 Ac	4.15	29,952	3.58	21,506
Southern Section: 1.88 Ac	6.24	45,048	5.38	32,346
TOTAL=		75,000		53,852

6.03.b Proposed Alterations to Drainage Patterns

The proposed development will alter the existing drainage patterns of the site at top of the hill. The terminal area storm water run-off will primarily drain through treatment systems (North Detention Pond or OWS) and connect to an existing permitted WAPA storm water discharge (Outfall 001) at the Randolph Harley Facility Permit No. VI0000060. This permitted discharge enters Lindberg Bay within the Lindberg Bay Watershed (HUC_14: 21020001010040) of Virgin Islands Waters which is classified as Class B waters. The southeastern grassy area between the diversion berm and the terminal area open drainage channels will be routed to the South Detention Pond which will overflow into the catchment area of WAPA's Outfall 005 which discharges into Krum Bay. The office area storm water will drain into the Lindberg Bay.

After construction, the site will consist of impervious building and pavement areas but will also have grassed areas. Drainage will be channelized as discussed in earlier sections and above. Data on run-off in response to a 25-yr 24-hr and 10-yr 24-hr storms after construction is completed, and considering the management of storm water, are presented in Table 6.03-T-2.

Table 6.03-T.2 Terminal on Top of Hill: Post-Construction

Description	Drainage Area (Ac)	25 yr 24 hr Peak Run-Off into Pond/OWS (cfs)	25 yr 24 hr Discharge to appropriately sized pipe or to Outfall 005 catchment area (cfs)	25 yr 24 hr Volume Discharged to Pipe(s) (cf)
North Detention Pond: Appropriately Sized Line to Outfall 001 Conveyance at MH (don't have WAPA ID number at this time)			5.74	41,454
Receives 3 8" pipes from MOUND AREA run-off	1.73	5.74		
Receives run-off Grassy Area between berm and open drains around terminal	0.37	1.23		
OWS-101: "Small" Line tying into Appropriately Sized Line			0.93	3,500
Receives run-off from pipe/pump/equipment terminal are	0.28	0.93		
South Detention Pond: 4 8" outlets to surface of hill onto WAPA			0.54	11,871
Receives run-off Grassy Area between berm and open drains around terminal	0.69	2.29		
TOTAL =				56,825
		10 yr 24 hr	**10 yr 24 hr**	**10 yr 24 hr**

Description	Drainage Area (Ac)	Peak Run-Off into Pond/OWS (cfs)	Discharge to appropriately sized pipe or to Outfall 005 catchment area (cfs)	Volume Discharged to Pipe(s) (cf)
North Detention Pond: Appropriately Sized Line to Outfall 001 Conveyance at MH (don't have WAPA ID number at this time)			4.76	29,765
Receives 3 8" pipes from MOUND AREA run-off	1.73	4.95		
Receives run-off Grassy Area between berm and open drains around terminal	0.37	1.06		
OWS-101: "Small" Line tying into Appropriately Sized Line Receives run-off from pipe/pump/equipment terminal area	0.28	0.8	0.8	4,817
South Detention Pond: 4 8" outlets to surface of hill onto WAPA			0	16,533
Receives run-off Grassy Area between berm and open drains around terminal	0.69	0.93		
TOTAL =				51,115

Even though impervious surfaces will be constructed to protect the terminal due to the use of detention basins and planting grasses, the project will reduce run-off volume from this area by 5 to 24% . As described elsewhere, run-off water from the northern grassy area, the mound and operations portions of the terminal area will be directed through treatment systems and tied into WAPA's Outfall 001 discharge to Lindbergh Bay. Outfall 001 average discharge is 147.2 cfs with the storm water portion averaging 3.2 cfs. The 25-yr 24-hr total volume of

44,954 cubic feet or 0.52 cfs (assume over 24 hours) discharge from the terminal to Outfall 001 is an insignificant.

The eastern grassy area will be routed to the South Detention Pond that will overflow into WAPA's catchment area for Outfall 005, which discharges into Krum Bay. Outfall 005, as a storm water only outfall, is monitored once per month. For the past two years, insufficient flow has occurred during the monitoring period, therefore no average discharge can be calculated. Assuming the catchment area is all captured into the Outfall 005 pipe, the 25-yr 24-hr total volume of 11,871 cubic feet (assume over 24 hours) would result in an average flow rate of 0.14 cfs, which is a small amount of flow.

By collecting and treating the terminal run-off, the project will improve the current situation for storm water. Currently, heavy rain fall tends to sheet flow down the hill entering Krum and Lindberg Bay carrying sediment. Standard sediment and erosion control devices and Best Management Practices (BMP's) will be implemented prior to commencement of earth-moving site work and will be maintained throughout the life of the project. Permanent BMP's shall be maintained according to standard practices on a regular schedule and after storm events

The lay down yard will be an area that is flat and has been used by numerous projects in the past as a staging, or laydown area. The use will be temporary and no impervious surfaces will be placed. The use of the lay down yard should have no impact on run-off.

The Office building, located to the south of the terminal, will have a dedicated sewage treatment system (packaged treatment unit) and storm water from the area will drain into WAPA's catchment area for Outfall 003, which discharges to Krum Bay.

6.03.c Relationship of the Project to the Coastal Flood Plain

The typical wave and wave patterns have a minimal effect inside Krum Bay due to the constricted nature of the mouth of bay. All of the shoreline area and offshore areas are in Zones VE8 and VE10. Areas of the 100-year coastal flooding (storm event) with velocity (wave action) have been determined to be 8ft and 10 ft. respectively (Flood Insurance Rate Map, Panel 40 of 94, revised April 16, 2007) (Figure 6.02-F.3). The project, in respect to the dock facility, has been designed to withstand these storm characteristics.

6.03.d Peak Storm Water Flow Calculations

Peak storm water flow calculations were performed for the proposed site development using the rational method and graphical area method taking into consideration the various surfaces present and the changes thereto. The 24-hour peak intensity-duration values provided from NOAA were used to calculate the approximate peak run-off rates for the hydraulic storms with return periods of 10 and 25 years which were noted to be 6.47" and 8.4", respectively. Table 6.03-2 presents the peak flow data into OWS-101, North Detention Pond, and South Detention Pond and out of the engineered structures. In addition the total volume discharged either into the appropriately sized pipe or to the Outfall 005 catchment area are given in Table 6.03-2.

The project will result in a 5 to 24% decrease in run-off volume from the site because of the use of grass and detention ponds, even though impervious surfaces are to be constructed to protect the terminal. Terminal area run-off will be treated subject to general TPDES Permit conditions for terminals and directed to WAPA's TPDES permitted Outfall 001 discharge into Lindbergh Bay or into WAPA's catchment area for Outfall 005 which discharges to Krum Bay. Treatment of run-off is achieved either through the reduction of TSS in the North or South Detention Basins or reduction of O&G by OWS-101 for the terminal equipment and pump area. By collecting and treating this run-off over this significant area of the hillside, the completed terminal is expected to improve the current situation by reducing volume and reducing solids.

6.03.e Existing Storm Water Disposal Structures

The only existing storm water control device within the proposed development footprint is a drainage swale on the existing concrete roadway which accesses the site from the main Power Plant. Runoff currently sheet flows across the site.

6.03.f Proposed Storm Water Control Facilities

Please see Section 5.01.g.

6.03.g Schedule of Maintenance of Storm water Facilities

Please see Section 5.01.h.

6.03.h Proposed Method of Land Clearing

Please see Section 5.01.c.

6.03.i Provisions to Preserve Topsoil and Limit Site Disturbance

Please see Section 5.01.d.

6.03.j Presence and Location of Any Critical Areas and Possible Trouble Spots

Please see Section 5.01.b.

6.03.k Erosion and Sediment Control Devices to be Implemented

Please see Section 5.01.d.

6.03.l Maintenance of Erosion and Sediment Control Devices

Please see Section 5.01.f

6.03.m Impacts on Terrestrial and Shoreline Erosion

The project will be creating additional impervious surfaces but with creation of grassy areas and use of detention ponds will be collecting and treating run-off to overall reduce storm water quantity and improve water quality. The project will result in a decrease of run-off in response to a 25-yr 24-hr storm by 24%. In addition, a portion of the run-off will be routed to the South Detention Basin and overflow to WAPA's catchment area for Outfall 005, a storm water only outfall. The additional flow is a slight 0.14 cfs. The majority of the terminal run-off is routed to the North Detention Basin (a minor amount passes through an oil-water separator), and then via WAPA's Outfall 001, into Lindberg Bay. The increase in flow from the run-off (~0.52 cfs) is insignificant compared to the 147.1 cfs currently discharged by WAPA. Hence, impacts on shoreline erosion will not occur (discharge is out of current outfalls). There is no anticipated impact to the terrestrial or marine environment as terminal run-off will be subject to BMPs and will be treated prior to discharge to WAPA's outfall system.

6.04 Fresh Water Resources

Terminal Facilities

St. Thomas, USVI is limited in the amount of fresh water resources to a few wells located around the island, and intermittent and ephemera streams and ponds which dry up during periods of limited rainfall. The majority of potable water is either captured by rooftops and stored in cisterns or is desalinated seawater. The project will get its potable water from WAPA. Water for firefighting will be taken from the sea from two permanently mounted pumps. The project will have no negative impact on the availability of fresh water resources.

NOV 27 2000

NOV 27 2000

Mr. Gregory Rhymer
Environmental Manager
Virgin Islands Water and Power Authority
P.O. Box 1450
St. Thomas, U.S. Virgin Islands 00804

Sub: Prevention of Significant Deterioration of Air Quality (PSD) Final Permit for North Shore, St. Croix facility

Dear Mr. Rhymer:

On December 16, 1996, Virgin Islands Water and Power Authority (VIWAPA) submitted an application to revise the PSD permits for power generating Units 16, 17, 19 and 20 at your North Shore facility in St. Croix. Based on the review of the information you provided through January 28, 1999, we issued a draft PSD permit on January 13, 2000. The public comment period ended on March 6, 2000. VIWAPA, the only commenter, submitted about 15 comments. Your comments pertain primarily to the proposed revisions to the VOC emission limits based on the test results and various testing protocols.

EPA reviewed the concerns raised by VIWAPA and made changes to this draft permit. The proposed emission limits for the VOC have been changed to account for variability in the test results and sampling errors. Minor changes also have been made to testing protocols. EPA on its own also has removed the emission limits and related requirements for Beryllium for all the units because Beryllium is no longer a PSD affected pollutant. These changes and the response to all the comments that were raised during the public comment period can be found in Enclosure III. A project description and summary of the control technologies to be used are provided in Enclosure I. The permit conditions are found in Enclosure II.

EPA concludes that this final permit meets all applicable requirements of the PSD regulations codified at 40 CFR §52.21 and the Clean Air Act (the Act). Accordingly, I hereby approve VIWAPA's PSD permit. This letter and its attachments represent EPA's final permit decision. The Administrative Record for this case is located at both the EPA Region 2 Office in New York City, New York, and EPA's Caribbean Environmental Protection Division Office in St. Croix, Virgin Islands.

If you have any questions regarding this letter, please call Mr. Steven C. Riva, Chief, Permitting Section, Air Programs Branch, at (212) 637-4074.

Sincerely,

/S/ William J. Muszynski

Jeanne M. Fox
Regional Administrator

Enclosures

This final permit decision may be challenged under the Consolidated Permit Regulations, codified at 40 CFR Part 124, that apply to EPA's processing of this permit decision. Specifically, 40 CFR §124.19 establishes the following procedures for administrative appeal of the final PSD permit decision. Any person who filed a comment on the draft permit may petition the Environmental Appeals Board in Washington, D.C. for review. In addition, any person who failed to file a comment on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit. Any petition for review under this part must be made within thirty (30) days of the service of notice of the final permit decision by the EPA Regional Administrator. The petition for review shall include a statement of the reasons supporting that review, and shall adhere to the standards outlined in 40 CFR §124.19(a)(1) and (2).

All persons applying for administrative review must file the original and one (1) copy of the petition for review with the Environmental Appeals Board at the following address:

For Regular Mail:
U.S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
401 M Street, SW
Washington, DC 20460

For Hand-Carried and Express Mail:
U.S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
Westory Building, Suite 500
607 14th Street, NW
Washington, DC 20005

Phone number: (202) 501-7060
Fax number: (202) 501-7580

For purposes of judicial review under the Act, final Agency action does not occur until after administrative review procedures are exhausted. Notice of the Agency's final action with respect to this permit will be published in the Federal Register. Judicial review of this final action is available by filing a petition for review in the United States Court of Appeals for the appropriate circuit within sixty (60) days of the date of the Federal Register notice. Under Section 307(b) of the Act, this final Agency action shall not be subject to judicial review in civil or criminal proceedings for enforcement.

Since comments requesting changes to the draft permit were received and minor changes were made to the permit, this final permit will become effective thirty (30) days after the service of notice, unless review is requested under 40 CFR §124.19. If a petition for review of the final Agency action is filed, the permit will not become effective until after a decision on the petition is rendered by the Environmental Appeals Board.

ENCLOSURE I

VIRGIN ISLANDS WATER AND POWER AUTHORITY
NORTH SHORE-ST. CROIX

PROJECT DESCRIPTION

The Virgin Islands Water and Power Authority (VIWAPA) is requesting to revise the existing permits for Units 16, 17, 19 and 20 located at its North Shore, St. Croix site for the reasons stated below. EPA is proposing to consolidate permits of Units 10, 11, 12, 14, 16, 17, 19 and 20 into a single amended permit. VIWAPA has retired and dismantled Units 12 and 14, however, it will continue to operate pre-PSD boiler Units 10 and 11 according to the Virgin Islands Department of Natural Resources permits. Thus, VIWAPA will operate six Units at this site.

Units 10 and 11
VIWAPA will continue to use these pre-PSD existing boilers pursuant to the permits issued by VIDPNR. These Units shall continue to use residual fuel or better with maximum sulfur content of 0.33% by weight.

Units 12 and 14
These Units have been retired and dismantled.

Units 16 and 17
EPA is proposing to revise the compliance demonstration and testing requirements for the two existing units - unit 16 and 17 at its St. Croix generating station. Unit #16 is a 23 MW General Electric (GE) oil-fired gas turbine (Model PG 5341) which was installed in 1981. Unit 17 is a 20 MW Alsthom Model Series (Model MS 5001) oil-fired gas turbine, which was installed in October 1988. Emissions from units 16 and 17 will be vented through a Heat Recovery Steam Generator (HRSG) capable of producing 98,000 pounds per hour of steam. The HRSG will be configured such that either of the two gas turbines may operate alternatively in a simple or combined cycle mode. These units burn No. 2 fuel oil having a maximum sulfur content of 0.2 percent by weight.

Unit 19
EPA is proposing to revise the PM10 emission limit from 5 lbs/hr to 18 lbs/hr, VOC emission limits to reflect the oxygen correction requirement and the revisions in EPA's test methods. The permit issued in 1993 required PM10 testing using Method 201/201A whereas the test which should have been required to be conducted was Method 201/202. Method 202 will catch additional condensible particles. This permit revision continues to limit VIWAPA to .2% sulfur fuel. However, VIWAPA conducted a test of its PM-10 emission rate using approximately .08% sulfur fuel. EPA retains its authority under Section 114 of the Clean Air Act, 42 U.S.C. §7414 to require further PM-10 testing in the event VIWAPA uses fuel exceeding .12% or at any other time that EPA deems appropriate. EPA further reserves the right to revise the sulfur in fuel limit in the event a stack test reveals an exceedance of the 18 lb./hr. PM-10 limit. The VOC emission

estimate by VIWAPA at the initial permit issuance was not based on oxygen correction, however, the permit set the VOC emission limit based on oxygen correction. Thus, the test results reflect emissions based on more accurate test methods rather than a net increase in emissions. This unit, designated unit 19, is a variable load General Electric (GE), Frame 5 combustion turbine (Model PG5371). The unit produces approximately 20 MW of electricity. Unit 19 replaced unit 14 (an older unit installed in 1972) and was constructed on the same location where unit 14 existed. Note that VIWAPA did not use actual emission credits from unit 14 to offset potential emissions from unit 19 when an initial permit was issued in 1993. Unit 19 operates under simple cycle mode, without any secondary heat recovery. Unit 19 burns No. 2 fuel oil having a maximum sulfur content of 0.2 percent sulfur by weight.

Unit 20

EPA is proposing to revise the PM10 emission limit from 5 lbs/hr to 18 lbs/hr, VOC emission limits to reflect the oxygen correction requirement and the revisions in EPA's test methods. The permit issued in 1994 required PM10 testing using Method 201/201A whereas the test should have been required to be conducted was Method 201/202. Method 202 will catch additional condensible particles. This permit revision continues to limit VIWAPA to .2% sulfur fuel. However, VIWAPA conducted a test of its PM-10 emission rate using approximately .08% sulfur fuel. EPA retains its authority under Section 114 of the Clean Air Act, 42 U.S.C. §7414 to require further PM-10 testing in the event VIWAPA uses fuel exceeding .12% or at any other time that EPA deems appropriate. EPA further reserves the right to revise the sulfur in fuel limit in the event a stack test reveals an exceedance of the 18 lb./hr. PM-10 limit. The VOC emission estimate by VIWAPA at initial permit issuance was not based on oxygen correction, however, the permit set the VOC emission limit based on oxygen correction. Thus, the test results reflect emissions based on more accurate test methods rather than a net increase in emissions. This unit, designated as Unit #20, is a variable load General Electric (GE) combustion turbine, Model PG5371(PA). The unit produces approximately 24.5 megawatts (MW) of electricity, and replaced Unit #12 (an older diesel engine, installed in 1968). Note that VIWAPA did not use actual emission credits from Unit #12 to offset potential emissions from Unit #20 when it was issued the initial permit in 1994. Unit #20 operates under simple cycle mode, without any secondary heat recovery, and burns No. 2 fuel-oil with a maximum sulfur content of 0.2 percent sulfur by weight.

Units 16, 17, 19 and 20 at this site are PSD sources with potential emissions of criteria pollutants in excess of 100 tons per year (TPY). Each unit was issued a PSD permit prior to the present action. All these units are PSD affected for oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), and volatile organic compounds (VOC). The potential emissions from these units are as follows.

POLLUTANT	UNITS 16 AND 17	UNIT 19	UNIT 20
	(tons/year)	(tons/year)	(tons/year)
Nitrogen Oxides (NO_x)	583.0	249.7	249.7
Sulfur Dioxide (SO_2)	591.3	278.4	281.0
Carbon Monoxide (CO)	325.3	1379.7	1379.7
Particulate matter less than 10 microns (PM_{10})	105.5	78.8	78.8
Volatile Organic Compounds (VOC)	117.8	247.5	247.5

VIWAPA employs Best Available Control Technology to control the pollutants described above. NO_x emissions shall be controlled through the use of water injection. SO_2 and PM_{10} emissions will be controlled through the use of low sulfur distillate fuel oil. CO and VOC emissions will be controlled by implementing good combustion practices and performing intensive maintenance.

ENCLOSURE II

VIRGIN ISLANDS WATER AND POWER AUTHORITY (VIWAPA)
NORTH SHORE-ST. CROIX

PERMIT CONDITIONS (Units 16,17,19 and 20)

The electric power generating units at VIWAPA - St. Croix, as described in Enclosure I, are subject to the following conditions:

I. EMISSION LIMITATIONS AND TESTING REQUIREMENTS:

A. Unit 16 ---- 23 MW GE Frame 5 (Model PG5341)

1. The total fuel usage for unit 16 shall not exceed 21,199,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 338.8 million British Thermal Units per hour (MMBTU/hr).

   b. Unit 16 is limited to a maximum fuel consumption rate of 2420 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

   a. While operating in simple or combined cycle mode, the NO_x emissions shall not exceed 59.1 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

   Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

   b. Except when operating at low loads (less than 35% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at

the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. While operating in simple or combined cycle mode, using the old combustion portion of the generating unit, the NO_x emissions shall not exceed 77.4 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 55 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period."

d. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.8 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the

testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.3 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2947
12MW	1530
17MW	593
18-22MW	204
MAX	51

6. **Particulate Matter/PM_{10} Emission Limitation:**

a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.1 lbs/hr.

b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.1 lbs/hr.

c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, VOC emissions

shall not exceed 13.5 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) 18 from the Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1417
12MW	905
17MW	110
18-22MW	40
MAX	32

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

B. <u>Unit 17 ---- 20 MW Alsthom Model Series (MS) 5001</u>

1. The total fuel usage for unit 17 shall not exceed 21,024,000 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 336.0 million British Thermal Units per hour (MMBTU/hr).

b. Unit 17 is limited to a maximum fuel consumption rate of 2400 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. While operating in simple or combined cycle mode, NO_x emissions shall not exceed 55.7 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

b. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. Except when operating at low loads (less than 35% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

d. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.2 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In performing these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide

emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.0 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2196
10MW	1140
15MW	442
18-20MW	152
MAX	38

6. **Particulate Matter/PM_{10} Emission Limitation:**

a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.0 lbs/hr.

b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.0 lbs/hr.

c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of

these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, VOC emissions shall not exceed 13.4 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1063
10MW	679
15MW	82
18-20MW	30
MAX	24

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

C. <u>Unit 19 - 20 MW GE Frame 5 (Model PG5371)</u>

1. The total fuel usage for unit 19 shall not exceed 19,885,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 317.8 million British Thermal Units per hour (MMBTU/hr).

b. Unit 19 is limited to a maximum fuel consumption rate of 2,270 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. The NO_x emissions shall not exceed 57 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

Except when operating at low loads (less than 25% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

b. Except when operating at low loads (less than 25% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. The SO_2 emissions shall not exceed 63.5 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2 . The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow

consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen as determined by continuous emission monitoring. The load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	EMISSION RATE in lbs/hr(ppmdv @ 15% O_2)
5MW	315.0 (450)
10MW	294.0 (420)
15MW	288.1 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, unit 19 shall not operate below a load factor of 15 percent.

6. **PM_{10} Emission Limitation:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. The VOC mass emission rates (measured as carbon) at various load ranges is given in the table below. Compliance shall be demonstrated using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. VOC emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen. The load will be determined based on amount of electricity generated (MW).

LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
16-18 MW	5.6 (13)
MAX	3.1 (10)

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

D. <u>Unit #20 - 24.5 MW GE Turbine (Model PG5371)</u>

1. The total fuel usage for Unit #20 shall not exceed 19,830,720 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel-oil used during each calendar day to the total quantity of the fuel-oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 317.9 million British thermal units per hour (MMBtu/hr).

b. Unit #20 is limited to a maximum fuel consumption rate of 2,270 gallons per

hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitations:**

a. The NO_x emissions shall not exceed 57 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average NO_x emission rate of these three test runs.

Except when operating at low loads (less than 25% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at low loads cannot exceed 25% of the total annual operating time during a rolling 12-month period.

b. Except when operating at low loads (less than 25% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing, and will be incorporated into the VIDPNR operating permit.

c. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as but not limited to, selective catalytic reduction, will be required. The gas turbine system shall be designed to accommodate the inclusion of such a control system.

4. **Sulfur Dioxide (SO_2) Emission Limitations:**

a. The SO_2 emissions shall not exceed 64.2 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA RM 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average SO_2 emission rate of these three test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2 . The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur

dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel-oil, in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **PM_{10} Emission Limitations:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average PM_{10} emission rate of these three test runs.

6. **Carbon Monoxide (CO) Emission Limitations:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA RM 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels, corrected to 15% oxygen, as determined by continuous emission monitoring. Percent load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	**EMISSION RATE in lbs/hr(ppmdv @ 15% O_2)**
5MW	315 (450)
10MW	294 (420)
15MW	288 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, Unit #20 shall not operate below a load factor of 15 percent.

7. **Volatile Organic Compounds (VOC) Emission Limitations:**

a. The VOC mass emission rates (measured as carbon) at various loads is given in the table below. Compliance shall be demonstrated using EPA RM 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average VOC emission rate of these three test runs.

b. VOC emissions shall not exceed the following concentrations at various percent load levels, corrected to 15% oxygen. Percent load will be determined based on amount of electricity generated (MW).

LOAD	**EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)**
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
18-20 MW	5.6 (13)
MAX	3.1 (10)

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitations:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring, except for 3 minutes in any consecutive 30-minute period, during which 40 percent opacity shall not be exceeded.

E. Existing Residual Fuel-Consuming Units 10 and 11:

1. Unit 10 and unit 11 are limited to a maximum fuel consumption rate of 1,744 gallons/hour and 3,140 gallons/hr respectively.

2. Unit 10 and unit 11 shall use No. 6 fuel oil in which the sulfur content does not exceed 0.33 percent by weight.

II. MONITORING, RECORDING, and RECORD KEEPING:

A. Prior to the date of startup and thereafter, VIWAPA shall install, calibrate, maintain and

operate continuous emission monitors or monitoring systems to measure stack emissions and operating parameters indicated below:

Units 16/17
Continuous emission monitors (CEMs): CO, O_2, NO_x, and opacity.

Units 19/20-
Continuous emission monitors (CEMs): CO, O_2, NO_x, and opacity.
Continuous monitors: Volumetric stack gas flow rate, Stack temperature, and Water to fuel ratio.

B. Within 180 days of the effective date of this permit, VIWAPA shall install, calibrate and test each continuous emission monitor (CEM) and recorder listed in II(A). Monitors must comply with EPA performance and siting specifications pursuant to 40 CFR Part 60, Appendix B, Performance Specifications 1-4. Equipment specifications, calibration and operating procedures, and data evaluation and reporting procedures shall be submitted to EPA in a Performance Specification Test protocol. EPA reserves the right to require the auditing of the CEMs by independent agents. Data collected from the CEMs will be quality controlled and quality assured in accordance with the procedures specified in 40 CFR Part 60 Appendix F.

C. Not less than 90 days prior to the date of startup of any unit, VIWAPA must submit to the EPA a Quality Assurance Project Plan for the certification of the CEM systems. CEM performance testing may not begin until the Quality Assurance Project Plan has been approved by EPA.

D. VIWAPA shall submit a written report to EPA of the results of all monitor performance specification tests conducted on the monitoring system(s) within 45 days of the completion of the tests.

E. Logs shall be kept and updated daily to record the following:

1. the No. 2 fuel oil fired (gallons) on an hourly and annual (rolling 365-day) basis, and hours of operation for unit 16, 17, 19 and 20;

2. exceedance of emission limitations determined by continuous monitoring;

3. the sulfur content of all fuel oil burned; sulfur dioxide emission calculations, all sulfur dioxide emissions shall be recorded and maintained in a logbook.

4. the amount of water consumed (gals) to control NO_x emissions from all units

5. the amount of electrical output (MW) on an hourly basis from all units, amount of

steam produced from Units 16, 17 and the HRSGs at Units 16 and 17

6 the amounts (gallons) of No. 6 oil fired from existing Units 10 and 11 on an hourly basis

F. All continuous monitoring records and logs specified in this section must be maintained for a period of five years after the date of record, and made available upon request.

G. In each report quarter, 95% quality data availability shall be maintained for all opacity monitors and 90% quality data availability shall be maintained for all gaseous monitors. There shall be a quality assurance plan coupled with a calibration and maintenance program for these monitors.

III. REPORTING REQUIREMENTS:

A. All emission reports, testing reports and start-up notifications required under this permit shall be submitted to the EPA official named below. Three copies of the stack test report must be submitted within 60 days after completion of the test.

Mr. Carlos O'Neill, Chief
Enforcement and Superfund Branch
Caribbean Environmental Protection Division
U.S.E.P.A. Region II, Centro Europa Building
1492 Ponce De Leon Av, Suite 417
Santurce, Puerto Rico 00907-4127

B. Upsets/Malfunctions:

Upsets/malfunctions and actions taken on any unit must be reported by telephone within 24 hours with a follow-up letter within 5 calendar days to:

Mr. Hollis Griffin
Director, Division of Environmental Protection
Virgin Islands Department of Planning &
Natural Resources
Building 111, Apartment 114
Water Gut Homes
Christiansted, St. Croix, USVI 00820
(809) 773-0565

VIWAPA shall submit a written report of excess emissions to EPA for every calendar

quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the information specified below:

1. Specific identification of each period of excess emissions that occurred during start-ups, shutdowns, and malfunctions of the affected facility.

2. The nature and cause of any malfunction (if known) of the affected facility and the corrective action taken or preventative measures adopted.

3. For apparent excess emissions due to CEM malfunction, provide the date and time identifying each period during which the continuous monitoring system was inoperative (not including zero and span checks) and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred, or the continuous monitoring system(s) have not been inoperative, repaired or adjusted, such information shall be stated in the report.

5. The sulfur dioxide emissions shall be recorded, maintained in a logbook and reported as part of in VIWAPA's quarterly excess emission report. All sulfur dioxide exceedances as determined by fuel sulfur content and fuel usage shall be reported in the quarterly report. If there are no exceedances during a quarter, a statement to this effect shall be included in the quarterly Excess Emission Report.

The quarterly excess emission reports required in this section shall be sent to

Ms. Ann Zownir
Region II CEM Coordinator
Air and Water Section, Monitoring and Management Branch
U.S. EPA Region II
2890 Woodbridge Avenue
Edison, New Jersey 08837

A copy should also be sent to Mr. Carlos O'Neill of Region II and Mr. Hollis Griffin of Virgin Islands Department of Planning and Natural Resources at the addresses listed under Section III.A. and III.B.

IV. OTHER PERMIT CONDITIONS:

A. This facility is subject to the General Provisions of the NSPS (40 CFR, Part 60, Subpart A), and the NSPS for Stationary Gas Turbines (40 CFR, Part 60, Subpart GG).

B. VIWAPA shall meet all other applicable federal, state and local requirements, including those contained in the Virgin Islands State Implementation Plan (VISIP).

V. TESTING REQUIREMENTS:

A. VIWAPA shall conduct all performance tests in accordance with the following:

1. Conduct stack tests on the units 16, 17, 19 and 20 for all affected pollutants in accordance with the test methods published in 40 CFR Part 60 Appendix A and 40 CFR Part 51 Appendix M. All tests must be conducted within 60 days after achieving shakedown, but no later than 180 days after initial startup.

2. Obtain approval of a stack test protocol. VIWAPA may use Test Method 19 in lieu of Test Method 2 to determine stack gas volume. A detailed description of the sampling point locations, sampling equipment, sampling and analytical procedures, data reporting forms, quality assurance procedures and operating conditions for such tests must be submitted to the EPA.

3. Notify EPA and VIDPNR at least 30 days prior to actual testing.

4. Provide permanent sampling and testing facilities as may be required by the EPA to determine the nature and quantity of emissions from each unit. Such facilities shall conform with all applicable laws and regulations concerning safe construction and safe practice.

B. The EPA reserves the right to require additional stack testing of the pollutants for which an emission limitation has been set in Section I of the permit.

ENCLOSURE III

VIRGIN ISLANDS WATER AND POWER AUTHORITY (VIWAPA)
ST.CROIX, U.S. VIRGIN ISLANDS

REVISIONS TO THE PSD PERMIT FOR UNITS 10, 11, 16, 17, 19 AND 20

RESPONSIVENESS SUMMARY

All the comments are submitted by VIWAPA and they all are technical in nature relating primarily to permit conditions in the proposed revised PSD permit issued on January 13, 2000.

Testing Requirements

Comment 1
In correspondence dated April 19, 1996, VIWAPA asked for approval of the use of Method 19 in lieu of Method 2 to measure stack gas volumes for purposes of the PSD permits for Units 16, 17, 19 and 20. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. However, the proposed permit contains no reference to this clarification. VIWAPA requests explicit approval of the use of Method 19.
EPA Response
We accept that Method 19 can be used to measure stack gas volumes for the PSD permits for Units 16, 17, 19 and 20. Therefore, the PSD permit is revised accordingly.

Comment 2
In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve stack testing of TSP, PM-10 and Sulfur Dioxide for Units 16, 17, 19 and 20 at maximum load only, rather than requiring tests under all load conditions. VIWAPA also made a similar request for Beryllium at Units 16 and 17. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. However, the proposed permit requires testing at various loads.
EPA Response
In general, the higher the operating load of the units like these, the higher will be the emissions. However, VIWAPA's test results of these particular units indicate that the emission levels have a wider variability and in certain tests higher emissions have been indicated at lower load (for example, average particulate emissions for Unit 19 are 13 pounds per hour at 15 MW and 8.68 pounds per hour at maximum load). To ensure compliance with the emission limits at all loads, EPA continues to require testing at various loads. Note that this is consistent with EPA Region 2's practice of requiring tests at various loads for all the permits. On a case by case basis we also grant waiver from such requirements, for example, for Unit 16 and 17, we required testing at two loads, high and low. Beryllium is no longer a PSD pollutant therefore, we have removed the emission limits and the related requirements from this permit.

Comment 3

In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve calculations of sulfur dioxide emissions for Units 16, 17, 19 and 20 and Beryllium for Units 16 and 17, using analyses of fuel for sulfur and beryllium. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. The proposed permit is unclear on this issue.

EPA Response

A PSD permit will require initial compliance demonstration by a stack test. All subsequent compliance demonstration for sulfur dioxide may be demonstrated using the fuel analyses. The revised PSD permit clearly states this position. It should be noted that EPA reserves the right, under Section 114 of the Clean Air Act, to require stack testing for any of the permitted pollutant at any time in the future.

Comment 4

In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve compliance with NSPS requirements for sulfur dioxide at Units 16, 17, 19 and 20 be done by fuel analyses and calculations. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. VIWAPA filed a formal request for a waiver under NSPS Subpart GG. The permit does not reflect such a waiver.

EPA Response

The December 11, 1996 (Mangels to Rhymer) letter states that Subpart GG does not allow for this substitution and as such VIWAPA would need to request a waiver for complying with Subpart GG. The letter is silent on whether such a waiver would be approved. Furthermore, EPA cannot grant a NSPS waiver via a PSD permit. VIWAPA's request for such a NSPS Subpart GG waiver is being processed by the Division of Enforcement and Compliance Assistance at the Region 2 Office. VIWAPA will be notified when a decision is made on its waiver request.

Comment 5

In proposing approval of VIWAPA's request for compliance demonstration using fuel analyses, EPA specified that it be based on "average weekly content and flow". Clarify this language.

EPA Response

We have clarified the language for the compliance demonstration using fuel analyses as follows: "At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour. The sulfur dioxide emissions shall be recorded, maintained in a logbook and reported as part of in VIWAPA's quarterly excess emission report. All sulfur dioxide exceedances as determined by fuel sulfur content and fuel usage shall be reported in the quarterly report. If there are no exceedances during a quarter, a statement to this effect shall be included in the quarterly Excess Emission Report. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank."

Comment 6

Without any justification, the Agency has proposed to significantly modify the testing requirements for Units 16 and 17 by adding a requirement that PM-10 testing include the condensibles from Method 202 as well. There is no legal or factual basis for effectively decreasing the original permit limit for PM-10 at Units 16 and 17 by modifying the applicable testing method.

EPA Response

The original permits when issued did not appropriately address the test methods for PM-10. The review and approval of the test protocol found and rectified this anomaly. This revised PSD permit merely reflects the test methods approved during the test protocol process for the Units 16 and 17. The test methods have not been revised to effectively decrease the original permit limit for PM-10 emissions at Units 16 and 17. Note that Unit 16 was tested for PM-10 in May 1998 and test results indicate that this Unit complied with the PM-10 emission limit of 12.2 lbs/hr (stack test result- 10.5 lbs/hr). EPA will make any future decision on the PM-10 emission limits for Unit 17 based on the stack test results for that unit.

Comment 7

In its approval of test protocol for Units 19 and 20, the Agency recognized the physical limitations at VIWAPA facilities and allowed the use of test Method 5 instead of Method 201/201A for Units 19 and 20. VIWAPA subsequently requested that Method 5B should also be approvable. The proposed permit should also state that Method 5B is approvable.

EPA Response

Use of Method 5B is not appropriate for the overall PM-10 emission determination because it excludes particulate contributed to fuel sulfur.

Comment 8

Compliance tests for VOC at Units 19 and 20 were performed a few years ago. Therefore, the proposed permit should be amended by deleting the requirements for additional VOC testing at Units 19 and 20.

EPA Response

The original permits required testing of VOC at various loads and imposed both hourly and ppm limits. VIWAPA failed some of those limits. Based on the review of those test results and pursuant to VIWAPA's comments, the permit limits for VOC are now revised to reflect these test results (see response to Comment 9). EPA therefore concurs that the requirement for additional VOC testing at Units 19 and 20 should be deleted. Note that EPA reserves its right under Section 114 of the Act to require additional testing at any time in the future.

Emission Limits

Comment 9

VIWAPA believes that the revised mass and concentration limits for VOC for Units 19 and 20 are inconsistent with the test results. The mass limits in the original permit should be retained and the proposed concentration limits for Unit 19 should be increased by 20% (for sampling, emission variability) and the same mass/concentration limits for VOC be applied to Unit 20.

EPA Response

The concentration limits for VOC for Units 19 and 20 are revised to make them consistent with the information contained in the original application and the test results. Note that the test results are inconsistent for both units. In some cases, we have revised the emission limits pursuant to your concerns regarding oxygen correction. Where the test results have shown compliance the concentration limits in the original permit have been adjusted for oxygen correction. Where the test results have differed, the mass and/or concentration limits have been revised to 110% of the test result. The mass limits have been retained as in the original permit where the test results have indicated compliance.

REVISED VOC LIMITS FOR UNITS 19 and 20

LOAD	VOC--ppmdv(lbs/hr) existing permit limits	Test Results VOC--ppmdv(lbs/hr)		Revised VOC--ppmdv(lbs/hr) emission limits
	Unit 19/20	Unit 19	Unit 20	Unit 19/20
5 MW	132(56.5)	78(12.5)	10.5(1.86)	268(56.5)
10 MW	65(28)	43(9)	13.4(2.69)	89(28)
15 MW	30(17.5)	16.7(4.5)	10.6(2.81)	37(17.5)
18-20 MW	9(5.6)	10.5(2.95)	12.1(3.58)	13(5.6)
MAX	4(2.4)	8.8(2.88)	8.1(2.65)	10(3.1)

Comment 10

The emission limit table structure is provided as % of load. VIWAPA requests that the operating ranges 5-10 MW, 10-15 MW, 15-18 MW, 18-20 MW and 20-Max MW should also be included.

EPA Response

VIWAPA requested permit revisions related to emission limits for PM-10 and VOC for Units 19 and 20 and certain other items related to testing protocols. EPA therefore maintained the emission limit table structure as % load for other pollutants as in the original PSD permits. In order to further streamline this permit we agree with VIWAPA's request. Therefore, the final revised permit includes CO emission limits according to the operating ranges rather than % load for Units 16, 17, 19 and 20.

Miscellaneous Corrections

Comment 11

The original permit for Unit 16 allowed the use of the Unit at a NOx emission rates above 59.1 pounds per hour and 42 ppmdv @ 15% oxygen. This operating mode seems to have been deleted from the revised permit.

EPA Response

The revised permit continues to allow the operation of Unit 16 at a NOx emission rate at 59.1 pounds per hour and 42 ppmdv @ 15% oxygen. EPA, however, concurs that the following operating mode and related permit conditions were deleted inadvertently in the combined permit.

"While operating in simple or combined cycle mode, using the old combustion portion of the generating unit, the NO_x emissions shall not exceed 77.4 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 55 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period."

We have now included the above condition in the final revised permit.

Comment 12

The Fact-Sheet should also include reference to correspondence between VIWAPA and EPA dated April 19, 1996 (Rhymer to Eng), April 24, 1996 (Rhymer to Eng), September 18, 1996 (Rhymer to Eng) and December 11, 1996 (Mangels to Rhymer). The June 6, 1997 correspondence should be corrected to "June, 16".

EPA Response

The PSD permit Fact-Sheet includes a chronology of events after a formal submittal of a PSD application to track formal review process. VIWAPA submitted a formal permit revision request on December 19, 1996. EPA, however, agrees with the commenter that the above mentioned correspondence are part of the overall facility file and are in the record. The "June 6" date in the Fact-Sheet has been changed to "June 16".

Comment 13

In the Project Description, revised permit limit of "16 lbs/hr" for Unit 20 should be changed to "18 lbs/hr".

EPA Response

EPA concurs with this comment, therefore, the "Project Description" has been revised accordingly.

Comment 14

In Section E (page 13), the heading for the section on Units "11 and 12" should be corrected to Units "10 and 11".

EPA Response

EPA concurs with this comment, therefore, the heading for Section E has been revised accordingly.

Comment 15

Section IV, Other Permit Conditions should not include general reference to NSPS and state/local requirements. This may result in unjustifiable double violations (this Permit and applicable NSPS). Section IV should be deleted.

EPA Response

Under the Clean Air Act (CAA) and the State authorities many regulations will apply to the Units covered under this PSD permit. These other regulations may be overlapping and/or complementary. EPA Region 2's practice is to include a general condition in a PSD permit to alert the permittee to such other regulations and associated additional compliance obligations. Note that such a general condition is also consistent with Section 504(a) of the CAA which requires that a permit should ensure compliance with all applicable requirements.

Comment 16

Attachment I potential emissions for Units 19 and 20 should show changes only for PM-10 emissions. The other emissions should not change.

EPA Response

EPA concurs that potential emissions for Units 19 and 20 for NOx, CO and Sulfur Dioxide should not change. We will correct a typographical error in the Sulfur Dioxide emissions for Unit 19 and change the emissions from 276.8 tons per year to 278.4 tons per year. The emissions for PM-10 and VOC have changed for Units 19 and 20 to reflect the revised permit limits for these two pollutants. Note that the Attachment I would reflect any changes made in the final revised PSD permit.

REGION 2
NEW YORK, N.Y. 10007

June 7, 2024

Dayna Clendinen
Virgin Islands Housing Finance Authority
3202 Demarara Plaza, Suite 200
St. Thomas, VI 00802-6447

RE: Environmental Review for the Acquisition of the Liquid Propane Gas (LPG) Infrastructure, St. Croix District and St. Thomas/St. John District, U.S. Virgin Islands

Dear Ms. Clendinen:

In accordance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1509), the United States Environmental Protection Agency (EPA) has reviewed the Early Notice and Public Review of a Proposed Activity in a Federal Flood Risk Management Standard Designated Floodplain (FFRMS), published on May 24, 2024 by the Virgin Islands Housing Finance Authority (VIHFM).

EPA appreciates the outreach from the VIHFM to provide comments on the proposed action to acquire Liquid Propane Gas (LPG) infrastructure in order to meet energy demands across the U.S. Virgin Islands more efficiently. EPA recognizes under the U.S. Department of Housing and Urban Development's Code of Federal Regulations for determination of Categorical Exclusions (24 CFR 58.35).

In accordance with 24 CFR 58.5, we recommend that during the evaluation of practicable alternatives to the acquisition of the LPG infrastructure, that VIHFA consider the following:

- **Environmental Justice** – In accordance with Executive Order 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (Signed April 21, 2023), EPA encourages VIHFA to conduct a thorough review of potential impacts to communities across the U.S. Virgin Islands with environmental justice concerns and the direct and indirect impacts that may affect these communities due to the proposed action to inform decision-making regarding the practicable alternatives considered.
    - We encourage the use of federal and local tools to make environmental justice determinations as well as the active inclusion of community members who many not regularly have access to the public commenting process to ensure that those who may experience impacts due to the acquisition of equipment for a facility that is not increasing in unit size or output.

    - This could be conducted through community information sessions, media outreach through radio or social media, and with partnering with active environmental community-based organizations across the U.S. Virgin Islands. EPA is continuing to foment our efforts in this capacity and is willing to support VIHFA to best achieve these outcomes.
- **Air Quality –** In accordance with the Clean Air Act (42 U.S.C. 7506 (c) and (d)), EPA suggests VIHFA document the HUD implementation plan for which this project has established conformity and attainment under existing National Ambient Air Quality Standards for the project area. While EPA understands the scope to be acquisition of equipment, because this equipment is currently privately owned and operated, EPA recommends this information be disclosed prior to operations by a public government entity in order to meet regulations. If there are no requirements needed under this statute, we recommend that is clearly documented.

Thank you for the opportunity to provide comments on this Early Public Notice. We also appreciate the last minute availability to speak directly with your team this week to fully understand the project better so that we could provide comments that will hopefully add value to the work that your team is executing. EPA looks forward to a response to our comments, and we are committed to continuing to work with your team, especially as full projects come to fruition. Should you have questions on our comments noted above or related to this project, please contact me at benjamin.arielle@epa.gov or 212-637-3650.

Sincerely,

Arielle M. Benjamin
Environmental Review Team
Lead Reviewer

Cc: Jose A. Cedeño Maldonado, Regional Environmental Officer, Region IV, HUD
Donna Mahon, Field Environmental Officer, Disaster Recovery, Region IV, HUD
Mark Austin, Supervisor, Environmental Reviews and Strategic Programs Section, Region 2, US EPA

From: Alanah Lavinier
To: Benjamin, Arielle
Subject: RE: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI
Date: Monday, June 10, 2024 6:07:00 PM
Attachments: image002.png

Good afternoon Ms. Benjamin,

Thank you for your comments. We have reviewed your comments and made sure to include and refer to them when conducting the environmental review. We have taken into consideration environmental justice as well as air quality matters. Our CEST includes information on air quality matters to include discussion on the utilization of liquid propane vs diesel as well as figures documenting our air quality permits. Our combined notice is available for review on VIHFA.gov.

Thank you so much for your comment and input in this very important proposed activity.

Alanah Lavinier
Director- Policy, Procedures, and Regulatory Services
Virgin Islands Housing Finance Authority
CDBG-DR and CDBG- MIT Division

From: Benjamin, Arielle <Benjamin.Arielle@epa.gov>
Sent: Friday, June 7, 2024 11:52 AM
To: Dayna Clendinen <dclendinen@vihfa.gov>
Cc: Austin, Mark <Austin.Mark@epa.gov>; Damali Rogers <drogers@vihfa.gov>; Alanah Lavinier <alavinier@vihfa.gov>; Eugene Jones, Jr. <ejones@vihfa.gov>; Mahon, Donna M <Donna.M.Mahon@hud.gov>; Jose.A.CedenoMaldonado@hud.gov
Subject: RE: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI

Good morning Ms. Clendinen,

We appreciate the opportunity to review the Early Notice of the environmental review. Please see attached for our comments, we are available to discuss if you have any questions. We also appreciate your team taking the time to meet with us on short notice this week to better understand the scope of the project.

Have a good weekend,

Arielle M. Benjamin
Environmental Engineer, Environmental Reviews and Strategic Programs
Environmental Justice, Community Engagement and Environmental Reviews Division
U.S. Environmental Protection Agency, Region 2
212.637.3650

From: Dayna Clendinen <dclendinen@vihfa.gov>
Sent: Thursday, May 23, 2024 7:20 PM
To: - USACE <Karen.M.Urelius@usace.army.mil>; - USACE <Jose.A.Alicea-Pou@usace.army.mil>; Soto, Jose <Soto.Jose@epa.gov>; felix_lopez@fws.gov; – National oceanic... <pace.wilber@noaa.gov>; – National oceani <jennifer.schull@noaa.gov>; sharla.azizi@fema.dhs.gov
Cc: Damali Rogers <drogers@vihfa.gov>; Alanah Lavinier <alavinier@vihfa.gov>; Eugene Jones, Jr. <ejones@vihfa.gov>
Subject: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI

Good day, Federal Agency Partners,

This is to give notice that the Virgin Islands Housing Finance Authority (VIHFA), under their authority as a Responsible Entity pursuant to 24 CFR Part 58.4, is currently undergoing the environmental review for the acquisition of the Liquid Propane Gas (LPG) infrastructure. Please find the link below to our early notice for the acquisition of VITOL LPG infrastructure within the Virgin Islands Water and Power Authority Plant.

Please visit cdbgdr.vihfa.gov for more information.

Kind Regards,
DClendinen
Dayna **Clendinen**
Chief Disaster Recovery Officer
31AB Estate Taarneberg Beltjen II ● Charlotte Amalie ● St. Thoma
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VIHFA
VIRGIN ISLANDS
Housing Finance Authority