ENVIRONMENTAL ASSESSMENT REPORT

Application for the Renewal of a Major Land and Water Permit
TotalEnergies St. Thomas Terminal
United States Virgin Islands

Applicant
TotalEnergies Marketing Puerto Rico Corp.
PO Box 304509 St. Thomas, VI 00802
8089 Lindberg Bay St Thomas, VI 00802

Prepared by:
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June 12, 2025

COASTAL ZONE MANAGEMENT COMMITTEE
DEPARTMENT OF PLANNING AND NATURAL RESOURCES
GOVERNMENT OF THE U.S. VIRGIN ISLANDS

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Prepared on behalf of

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Adrian Perez Redondo, Operations, Director
Jesus A. Martinez Rodriguez, USVI Terminal and Operations, Manager
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ENVIRONMENTAL ASSESSMENT REPORT FOR THE RENEWAL OF A MAJOR WATER PERMIT TOTALENERGIES ST. THOMAS TERMINALST. THOMAS US VIRGIN ISLANDS

1.00 NAME AND ADDRESS OF THE APPLICANT

TotalEnergies Marketing Puerto Rico Corp.

Adrian Perez Redondo, Operations. Director
Jesus A. Martinez Rodriguez, USVI Terminal and Operations, Manager
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2.00 LOCATION OF PROJECT

The location of TotalEnergies St. Thomas Terminal is on the southern coast of the island of St. Thomas, in the U.S. Virgin Islands (USVI, Figure 2.00.01). The USVI is part of the lesser Antilles, located about 1100 miles south of the city of Miami and 40 miles from the eastern coast of Puerto Rico. The TotalEnergies property is east of the Cyril E. King Airport (18.3215° N Latitude, 64.8667° W Longitude) in the Lindbergh Bay area (Figure 2.00.02). It is approximately 10 miles west of the town of Red Hook and 1 mile west of Charlotte Amalie West (Figure 2.00.03). The property is zoned P, Public, and is within the boundary of the Tier 1 Jurisdiction of the Department of Planning and Natural Resources Division of Coastal Zone Management (Figure 2.00.04).

Figure 2.00.01 Regional review map, showing project location in the U. S. Virgin Islands.

Figure 2.00.02 Vicinity map showing the project area in relation to in reference to other St. Thomas Island features.

Figure 2.00.03 Vicinity map showing TotalEnergies St. Thomas Terminal in relation to the Cyril E. King Airport.

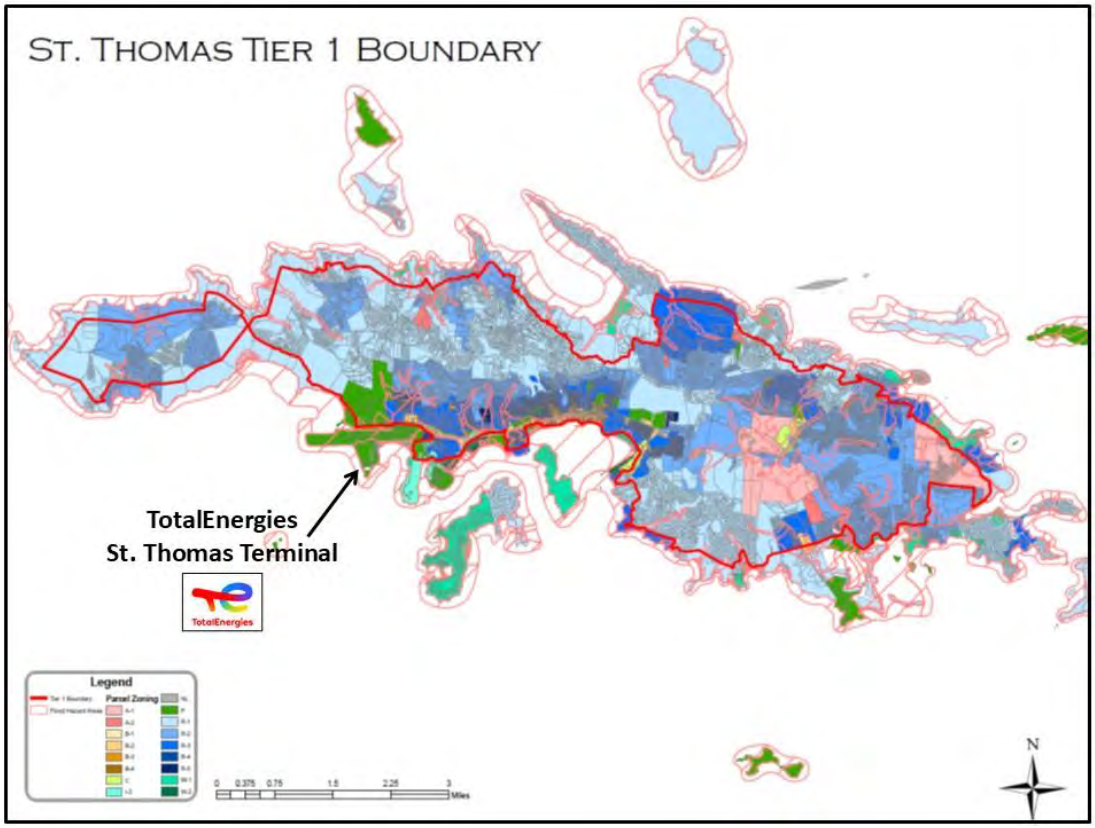


Figure 2.00.04 Location and Agency review map, showing Coastal Zone Management jurisdiction outside of Tier 1 Boundary line and "P" property zoning classification, land intended for public facilities and services.

3.00 ABSTRACT

The U.S. Virgin Islands has no fossil energy reserves, and imports petroleum products to meet nearly all of its energy needs, including the fuels to operate vehicles, boats, airplanes, machinery and generators. The fuel depot on the southern coast of St Thomas adjacent to the island's airport, located in a parcel owned by Virgin Islands Port Authority, has been used as a storage and filling facility for gasoline, diesel and Jet Fuel since 1987. TotalEnergies acquired from Esso, in 2009, the lease and operation rights of the facility. In 2022 TotalEnergies decided to discontinue gasoline storage and distribution, and to dedicate the whole facility to Jet Fuel and diesel.

The depot sits in a prime location to receive fuel from ships arriving from Puerto Rico and to service the many jets and airplanes that daily serve the island and region, as well as supply diesel oil needs around the island of St. Thomas. The land that the terminal occupies was artificially created using fill during the construction and improvements of the Cyril E. King airport beginning in 1980. The property holds 6 vertical cylindrical and 1 horizontal aboveground tanks, pipes and manifolds for diesel and Jet Fuel receiving, filtering and filling, two diesel generators, a damaged and abandoned building that previously served as an administration area, and a trailer currently being

used for administrative purposes. Fuel tankers and barges arrive from Puerto Rico once each 3 to 5 weeks to fill the storage tanks via a submerged pipeline that crosses the seafloor for approximately 500' offshore of the holding facility. Fuel trucks drive into the facility and fill with Jet Fuel or diesel oil before leaving to supply over 95% of the aircraft flying in and out of the Cyril E King Airport and diesel needs on St. Thomas. Due to damage sustained by the facility during the hurricanes of 2017, as well as the increased usage and demands of the Airport, TotalEnergies is planning improvements on the site, including repairs and upgrades in the truck loading area, the administrative building, the electrical facilities, firefighting and the vertical storage tanks. The US Virgin Islands lies in a zone of the Atlantic prone to both hurricane force winds and seas, as well as seasonal northeast swells. The predominant wind and wave direction (from the southeast) exposes the TotalEnergies terminal to occasional disruptive weather that must be safely handled both on land and at sea. TotalEnergies have in place emergency equipment and procedures to deal with spills, fires, explosions and other emergencies. They must follow the mandates set forth by the US Coast Guard, Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and the Federal Aviation Administration (FAA). To stay in compliance, rigorous training and regular practice drills for emergencies are employed. Equipment for any offshore spills or disaster response is located close to the pipeline and sea wall, and clear and stringent response procedures are in place to arrest and mitigate offshore damage. The improvements proposed by TotalEnergies will further expand operational standards and safety practices, as well as create an infrastructure more resilient to catastrophic events such as hurricanes. The Coastal Zone Management Major Water Permit for the property was originally issued in 2005 and TotalEnergies is currently seeking to renew the permit. This document represents an Environmental Assessment Report prepared on their behalf.

4.00 STATEMENT OF OBJECTIVES SOUGHT BY PROPOSED PROJECT

Continued Occupancy and Usage of TotalEnergies St. Thomas Terminal

The objectives sought by the Applicant of this permit renewal include:

1) Continue to provide storage and distribution of Jet Fuel to the airlines, commercial and private planes using the Cyril E. King airport, providing transportation on and off St. Thomas for the people and goods of the Virgin Islands as well as tourists, thereby maintaining the tourist trade and bringing money to the territory.

2) Continue to provide storage and distribution of diesel oil to distributers who supply private and commercial vessels, vehicles, generators and machinery, thereby facilitating transportation and vital services for the people of the Virgin Islands, as well as supporting the tourist industry.

3) Continue to operate and perform maintenance of the facility as per applicable standards to ensure proper condition and safety of the installations.

4) Perform maintenance, repairs and improvements as presented in the project summary. The impacts of these elements will be explicitly addressed in this report.

5) Continue to provide jobs to local residents by maintaining a fuel storage facility that requires a variety of skills and personnel.

5.00 DESCRIPTION OF PROJECT

5.01 SUMMARY OF PROPOSED ACTIVITY

Continued occupancy, operation and usage of TotalEnergies St. Thomas Terminal.

5.02 SITE PLANS

5.02.01 Lot Layout

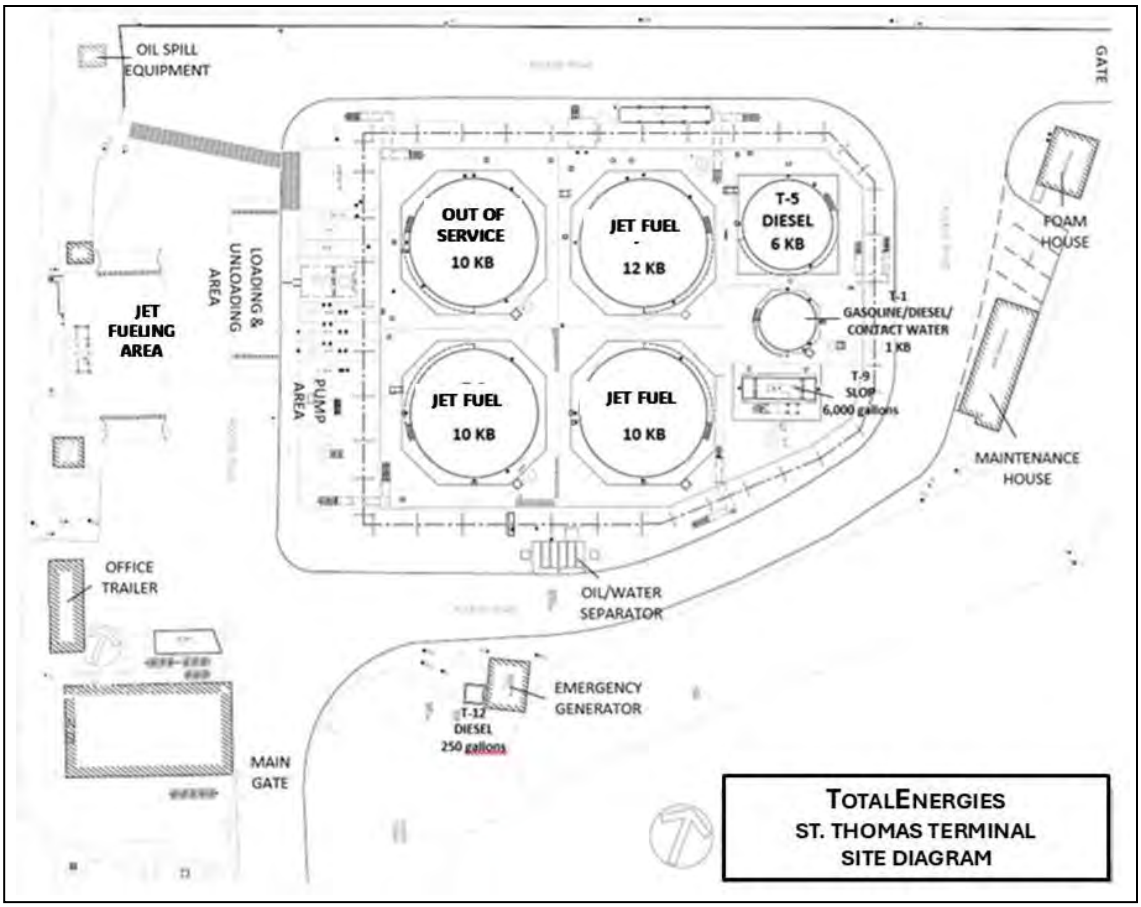


Figure 5.02.01.01 The site diagram for TotalEnergies St. Thomas Terminal.

5.02.02 Road Layout

The property is located south of the Cyril E. King Airport and adjacent to the southern leg of the airport runway. Airport Road runs south along the eastern side of the airport and becomes Ambassador Terrence A. Todman Drive as it wraps around the southern end of Red Point servicing Crowley Liner and Logistics, DHL and Bob Lynch Moving and Storage southeast of the fuel depot.

The property is accessed by the road at the southeastern corner where it is separated by a chain link fence that runs along the perimeter of the property (Figure 5.02.02.01 and Figure 5.02.02.02). The site is all concrete, asphalt and gravel. Directly north of the road is vacant land.

Figure 5.02.02.01 Airport Road runs south along the Cyril E King airport and becomes the Ambassador Terence A. Todman Rd, which accesses the fuel depot site.

Figure 5.02.02.2. At the site the road is gated off and a chain link fence runs the periphery of the property.

5.02.03 Position of Structures

Storage Tanks: The TotalEnergies St. Thomas Terminal site is a Jet Fuel and diesel oil receiving and storage facility. A containment area with five large storage tanks, for both Jet Fuel and diesel oil, covers most of the property. Jet Fuel is stored in three tanks; two receiving and one day tank. A fourth tank is used for diesel oil and the last is out of service, for which maintenance is planned in the short term (Figure 5.02.03.01). No gasoline has been stored at the facility since November 2022 due to safety concerns

All tanks have fixed roofs and are inspected daily in the morning for inventory control. A tape measure is used manually to confirm the quantity of fuel in each tank. This is compared to the monitor gauges to ensure that no leaks are present, and the monitors are accurate. The tanks are surrounded by a 9' concrete retaining wall as required by 40 CFR Part 112 which stipulates that a secondary containment for bulk storage containers, such as a dike or a remote impoundment, must be present and must hold the full capacity of the container plus 10% for possible rainfall (Figure 5.02.03.02).

Figure 5.02.03.01 Five large steel tanks occupy most of the property. Three hold Jet Fuel, one holds diesel oil and a fifth tank is not in use.

Figure 5.02.03.02 The tanks are surrounded by a 9' concrete retaining wall as required by 40 CFR Part 112 which stipulates that a secondary containment for bulk storage containers must hold 110% of the container volume.

Testing: Tanks are sampled daily from drains at the bottom of the fuel tanks and any water collected is pumped into a "slop tank" (Figure 5.02.03.03), which is a horizontal tank that lies within the impoundment area. Separated pure fuel is returned to the storage tanks. The slop tank is emptied monthly or when needed by an outside contractor, and the processed water is taken off site for disposal.

Figure 5.02.03.03 Fuel is sampled daily from the bottom of the tanks for roof leakage or internal condensation; any water collected is piped to the slop tank where it is stored until removal by an outside contractor.

Jet Fuel Filtration: The two tanks receiving Jet Fuel from offshore ships are transferred to the filling tank as needed after running through a filtration system. This manifold and filter system is located on the west side of the storage tanks near the filling areas. Two large filters, one mechanical to remove suspended solids and another micronic to remove water are in line between the Jet Fuel receiving tanks and filling tank (Figure 5.02.03.04). Diesel fuel is not filtered. Filters are cleaned and changed as needed; generally once annually. The tank manifold and filter system is surrounded by a 18" concrete barrier wall as required by 40 CFR Part 112.

Figure 5.02.03.04 A double filtration system is used inline when transferring Jet Fuel from storage tanks to the filling tank. This manifold/filtration area is on the west side of the storage tanks near the filling station.

Filling Areas: Fuel truck filling areas are located west of the storage tanks, on concrete pads. The diesel filling area is located adjacent to the pipe filtration system (Figure 5.02.03.05) and the Jet Fuel filling area is across the road near the shoreline of the property (Figure 5.02.03.06). Both diesel and Jet Fuel are pumped into the tanker trucks using manually operated meters due to loss of the automated filling system in the 2017 storms (Figure 5.02.03.07). Improvements proposed by TotalEnergies include installing a new loading skid with an improved control system and covering the area with a steel canopy to help prevent rainwater from coming in contact with fuel processing equipment. This will further isolate hydrocarbons and prevent them from entering the environment.


Figure 5.02.3.05 The diesel truck filling area is adjacent to the manifold and filtration area


Figure 5.02.03.06 The Jet Fuel filling area is located west, across the site, along the coastal area of the property. A containment wall surrounds all piping and filling areas.

F**igure 5.02.03.07** Both diesel and Jet Fuel are pumped into the tanker trucks using manually operated meters.

Offshore steel pipeline: Two pipes run under the concrete slab to the sea wall. One sealine is the main in service and the other is the back-up. Both sealines are functional, tested and maintained equally. This pipeline transfers both diesel and Jet Fuel. At the seawall the pipelines is encased in concrete and drops to the sea floor (Figure 5.02.02.08). There it runs approximately 500' west into the Caribbean, in an area known as Hawkbill Cove, weighted down by SubMar concrete mats until the steel pipe ends. At this point there are strings of four hoses in each pipeline, which are attached to a surface buoy by a chain

(Figure 5.02.03.09). Fuel tanker ships and barges, stationing themselves just offshore the depot on 4 permanent moorings (MBM), pick up the end of the operational fuel line via the large chain and connect it securely to the ship fuel tanks before TotalEnergies begins a transfer of refined Jet Fuel or diesel to the on-shore terminal.

Figure 5.02.03.08 The TotalEnergies Terminal steel pipeline is encased in concrete and descends down the shoreline covered in large boulders on the west side of the property to the sea floor.

Figure 5.02.03.09 The pipelines are held to the seafloor with SubMar concrete mats until the free terminal ends where they are free to be picked up by tankers and used to transfer fuel.

Once the fuel reaches the transfer area on land via the underground pipe that emerges at the storage area, it is pumped to the appropriate tank via a large manifold system (5.02.03.10). This system is located between the fuel storage tanks and the filling areas. The same pipeline is used to transfer both Jet Fuel and diesel oil. Visual and density verifications are performed to control the purity of the product going into the tanks. When the pipeline is not in use it is filled with sea water. This is pumped into the slop tank before new fuel is pumped through the line.

Figure 5.02.03.10 Two pipelines emerge from beneath the concrete slab to fill the Jet Fuel and diesel tanks at the facility. Only one line is currently used. The second is for redundancy and a back-up in case something happens to the other.

Additional Buildings

Figure 5.02.03.11 A small concrete building housing a 150 KW generator sits on the southern edge of the property. An additional out of service 100 KW generator is located outside of the structure. Improvements included relocating generators and installing electrical cabinets for power distribution in the protected concrete building.

Figure 5.02.03.12. On the western edge of the property near the pipelines are trailers that hold oil spill equipment and supplies.

Figure 5.02.01.10. The old administration building was damaged in the storms of 2017 and now sits abandoned on the SW corner of the property. A trailer beside it currently serves as the administrative building. Next to it is a container with firefighting equipment which is not currently used. The depot now uses the Aircraft Rescue Fire Fighters (ARFF) based out of the adjacent Airport for emergency fire and explosion incidents. Improvements planned by TotalEnergies include reconstructing the administrative building and equipping the facility with a dedicated Firefighting system.

5.02.04 Septic System/Wastewater Treatment

The TotalEnergies St. Thomas Terminal site uses the VIWMA wastewater and sewage system.

5.02.05 Stormwater Drainage

All pipes, manifolds, filling apparatus and tanks in the facility are within containment walls. Rainwater captured within the containment walls that could be contaminated is pumped and emptied through a grate into a storm water separator. Storm water that is not in a containment area flows freely across the pavement and gravel.

5.02.06 Stormwater Facilities

The storm water separator is a concrete, grated underground basin with three chambers. These chambers are open at the bottom and act a density separator, allowing the denser clean water to flow from one to chamber to another. The hydrocarbons float on top of the first chamber. Prior to the release of any water, it is inspected visually to confirm there are traces of hydrocarbons. In the past there was a valve which closed automatically in case of hydrocarbon detection in the separator. This functionality was lost following damages to the main building in 2017, and TotalEnergies plans to recover it in the future. Contaminated water at the top of the water separator is pumped into the slop tank and disposed of by an external specialized company.

Figure 5.02.06.01 The grated, underground three chambered storm water basin acts by separating clean water from fuel via density separation. Water that falls into containment areas is pumped into the water/fuel separator and only clean water is released.

5.02.07 Erosion and Sediment Control Plan

The fuel depot is an urban landscape with a paved and gravel lot so little occurs at the site. The western, seaward boundary is protected by large boulders that are unmoved in all but the most major storm events. Storm water is treated as described above.

5.02.08 Landscaping Plan

The site is completely paved or covered in gravel and has no landscaping.

5.02.09 Other Required Drawings

Drawings are available in the "Project Summary" attached to the application.

Included will be a new loading rack. Contrary to the existing rack it will have a canopy. Water collected from the canopy will be discharged through the water separator. The loading rack is one of the most exposed areas to the presence of hydrocarbons, either from the trucks or from the loading operations. The new canopy will keep rainwater off the loading rack, thereby preventing the flush of hydrocarbons onto the property.

The existing Firefighting Pumphouse will be replaced and likely the new one will have a larger footprint as additional equipment will be installed to provide the site with a dedicated system capable of handling a fire on the Terminal without the need of Airport firefighting equipment. This project is still on greenfield as no studies have been initiated.

The remainder of the buildings and structures will remain on their present footprints.

5.02.10 Required Maps

No maps are necessary for the Permit Renewal. New structures proposed (above) are on existing footprints.

5.03 PROJECT WORKPLANS

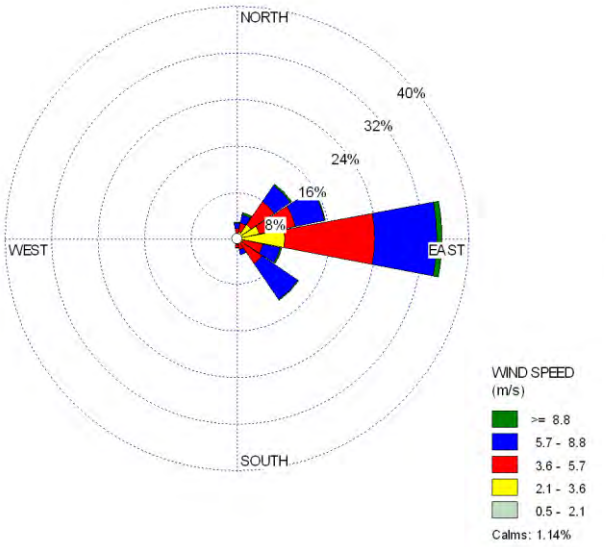
Continued Occupancy and Usage of TotalEnergies St. Thomas Terminal. Maintenance and reconstruction of the fuel terminal as outlined in the "Project Summary".

6.00 SETTING AND PROBAPLE IMPACT ON THE NATURAL ENVIRONMENT

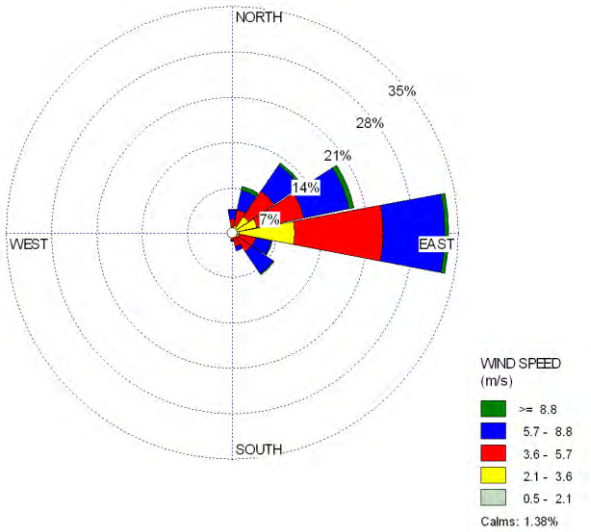
6.01 CLIMATE AND WEATHER

Winds

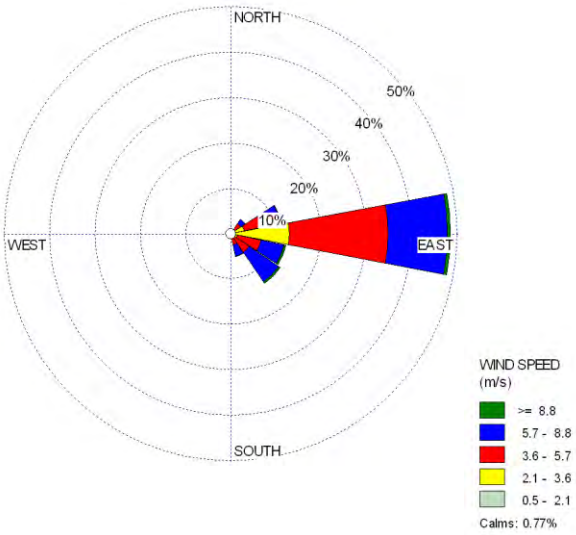
The Virgin Islands are in a location that lies in the path of what is referred to as the "trade wind belt". The trade winds can also be referred to as the "Easterlies", meaning the dominant winds come from the east and move toward the west. Therefore, most of the time the dominant wind direction around and on the island of St. Thomas is from the east. However, there is seasonality to the strength and direction of the winds impacting the island (Figure 6.01.01). Winter is described in the Caribbean as the period from December to February and is the time of the strongest winds. This is the time frame when the Bermuda High intensifies and increases the wind speeds around the Virgin Islands. It is also the period when the winds are highest from the east-northeast. The wind frequency diagram (Figure 6.01.02) shows that winds during winter are greater than 8.8 m/s about 2.9% of the time, which is higher than any other time period. The average wind speed in winter is 4.75 m/s. Between March and May, the period of Spring in the figures, the dominant wind direction is from the east with lower wind speeds than Winter; the average wind speed is 4.72 m/s. During June to August, the Summer period, the average wind speed is 4.79 m/s, the strongest average of all periods. The winds during this period are consistent, coming dominantly from the east with some change of direction to east-southeast. The period from September to December is, in contrast, the period with the lightest winds. Average wind speed during this period is 4.15 m/s, and only 1.6% of the time does wind speed exceed 8.8 m/s.



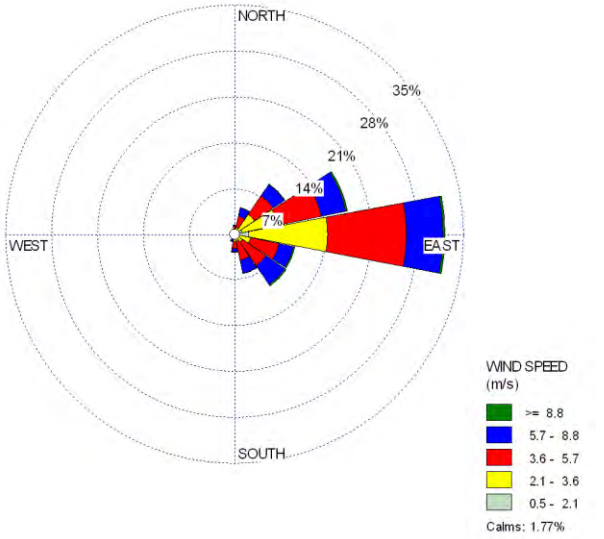
Winter



Spring



Summer



Fall

Figure 6.01.1. Average wind speed in m/s at St. Thomas airport (18.33730 N -64.97336 W) from January 2008 to June 2024 for Winter (December to February), Spring (March to May), Summer (June to August), and Fall (September to November).

Temperature and Rainfall

St. Thomas has a tropical savanna climate with dry winters. Due to the island's location on earth, close to the equator, as well as the moderating influence of the surrounding ocean, the mean high and low temperature varies only 5 to 9 degrees from the coldest month (January) to the warmest (August). The mean high in January from 1974 through 2022 at the Cyril E. King Airport was 84.2° F, and in August was 89.6° F. Mean low temperature during that same period was 73.4° in January, and 84.1° F in August (NOAA, 2022). Mean cloud cover in the region 21% (mostly clear) and does not vary substantially over the year.

Globally air temperature has been rising steadily since the 1960's (Figure 6.01.02). Whether a natural phenomenon or human-caused due to fossil fuel use and therefore higher CO2 levels is debatable, however the trend will certainly have effects and impacts on daily life and the tourist industry in the USVI's as elsewhere. Already, warmer air temperature has resulted in sea water temperature increases (Figure 6.01.03) which have caused major coral bleaching events over the past 20 years in the region and are responsible for a significant part of our coral reef degradation (Smith et al., 2013).

Average annual rainfall in St. Thomas is approximately 45 inches. Although there is not a sharply defined wet season, rainfall does vary throughout the year, and the months of September through November receive significantly more rainfall than December through August (NOAA, 2022). There is also variation across the island; the eastern "windward" end of St. Thomas receives less precipitation than the higher, wetter west end. Over the entire year, the most common type of precipitation on St. Thomas is light rain (47%) followed by moderate rain (26%) and heavy rain (21%). During August through November, some thunderstorm activity (5%) occurs. Rain events are generally short and drop less than a few tenths of an inch of water.

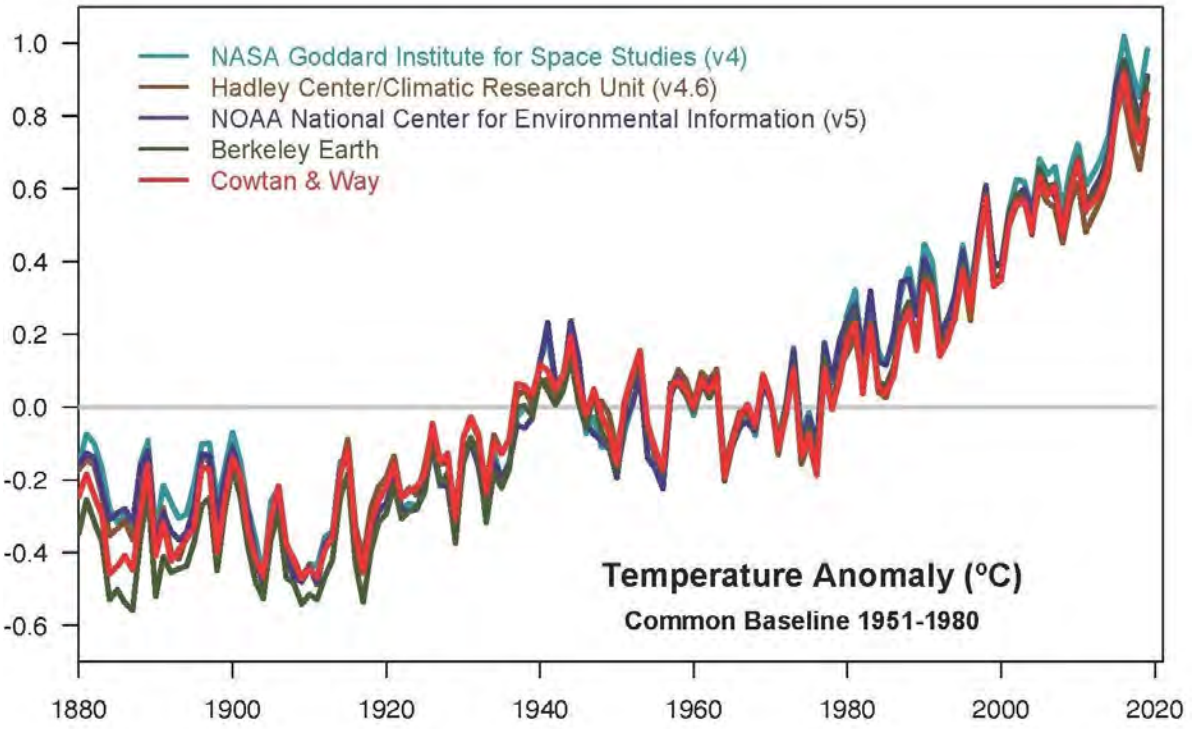


Figure 6.01.02 Global temperature rise over time. (Image from World Economic Forum https://www.weforum.org/stories/2020/01/climate-change-global-warming-hottest-decade-nasa-noaa/)

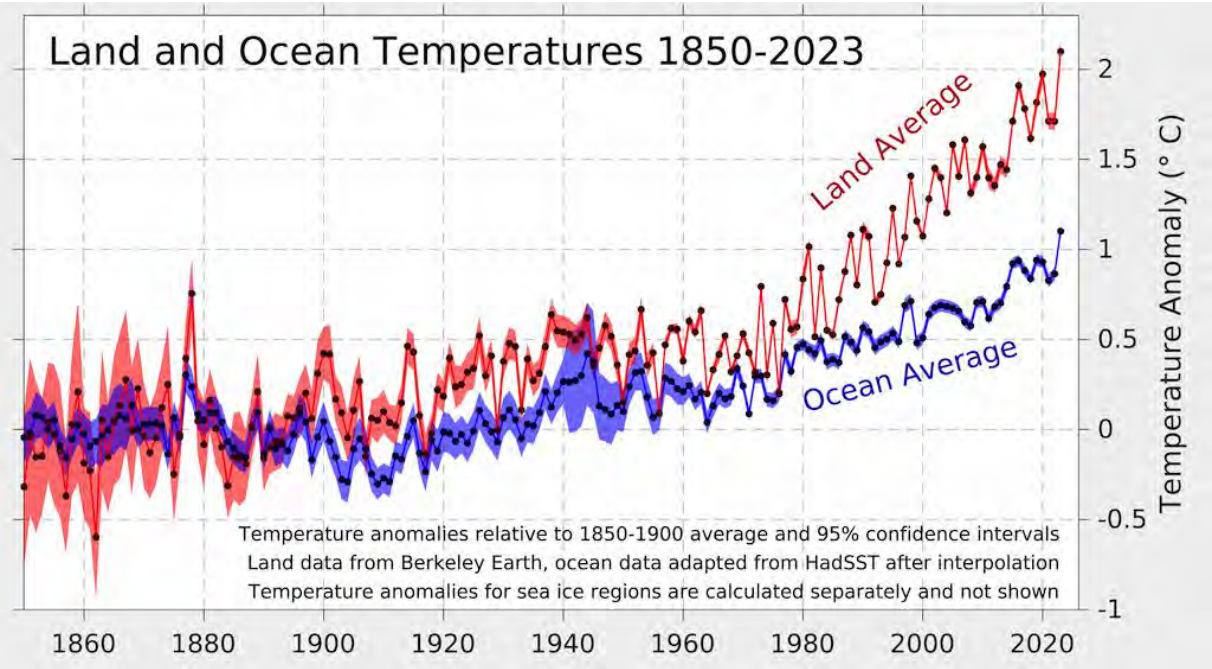


Figure 6.01.03 Image from Carbon Brief. https://www.carbonbrief.org/state-of-the-climate-2023-smashes-records-for-surface-temperature-and-ocean-heat/

Hurricanes

June 1st has been the traditional start of the Atlantic hurricane season for decades however the end date has been slowly shifted outward, from October 31st to November 30th. Hurricanes have occurred outside of these six months, but these dates were selected to encompass over 97% of tropical activity. The Atlantic basin shows a very peaked season from August through October, with 78% of the tropical storm days, 87% of the minor hurricane days (Saffir-Simpson Scale categories 1 and 2; Table 6.01.1) and 96% of the major hurricane days (Saffir-Simpson categories 3, 4 and 5) occurring during that time (Figure 6.01.04). Once every few years a tropical cyclone occurs "out of season", primarily in May or December. Category 3, 4, and 5 hurricanes are collectively referred to as major (or intense) hurricanes. These major hurricanes cause over 83% of the damage in the USA even though they account for only 21% of tropical cyclone landfalls. Major hurricanes have substantially different climatological characteristics compared to the weaker tropical cyclones in the Atlantic basin (Landsea, 1993). On an intra-seasonal time scale, major hurricane activity experiences a much sharper temporal peak than that of weaker storms with over half of all major storms occurring during September alone (Figure 6.01.04).

The US Virgin Islands is located in the area designated by the National Oceanic and Atmospheric Administration's Climate Prediction Center as the Main Development Region (MDR) for Atlantic tropical storms that originate off the West African coast, and many have passed through or near the territory in the last 70 years (Figure 6.03.05). As far back as records have been kept, the Northeastern Caribbean has compiled narratives and damage reports about destructive, sometimes very dangerous, tropical storms. Residents and businesses have had to endure the costly and deadly on-slaught of the 1867 San Narciso Hurricane, 1989 Hurricane Hugo, 1995 Hurricane Marilyn, and 2017 Hurricanes Irma and Maria. Other recent intense hurricanes in the US Virgin Islands include Luis (1995), George (1998), Lenny (St. Croix, 1999), and Earl (2010). Less intense hurricanes and tropical storms, with wind speeds from 39-110 miles per hour, have caused extensive damage over the years in the US Virgin Islands, mainly with rainfall produced flooding.

Table 6.01.1. Saffir/Simpson Hurricane Scale (Simpson and Riehl, 1981)

Scale Number	Cental Pressure	Winds (MPH)	Surge (feet)	Damage
1	>979	74-95	4 to 5	Minimal
2	965-979	96-110	6 to 8	Moderate
3	945-965	111-130	9 to 12	Extensive
4	920-944	131-155	13 to 18	Extreme
5	<920	>155	>18	Catastrophic

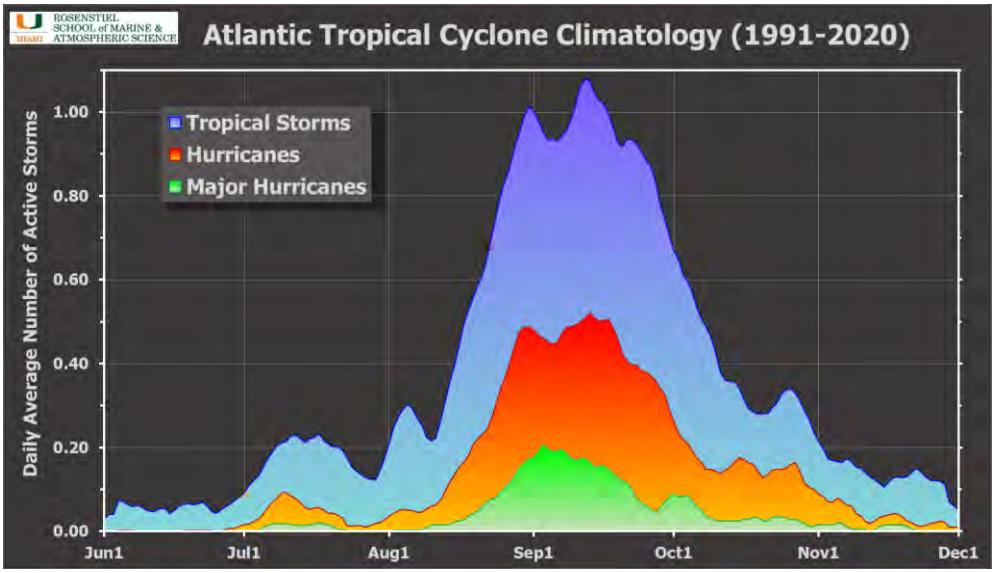


Figure 6.01.04 Major hurricanes, minor hurricanes and tropical storms from 1991-2020 in the Atlantic Ocean and Caribbean Sea over 6 months of the year. Peaks in all categories occur in late August and mid-September, although events stretch from May through December. (Image from UM Rosenstiel School of Marine and Atmospheric Science).

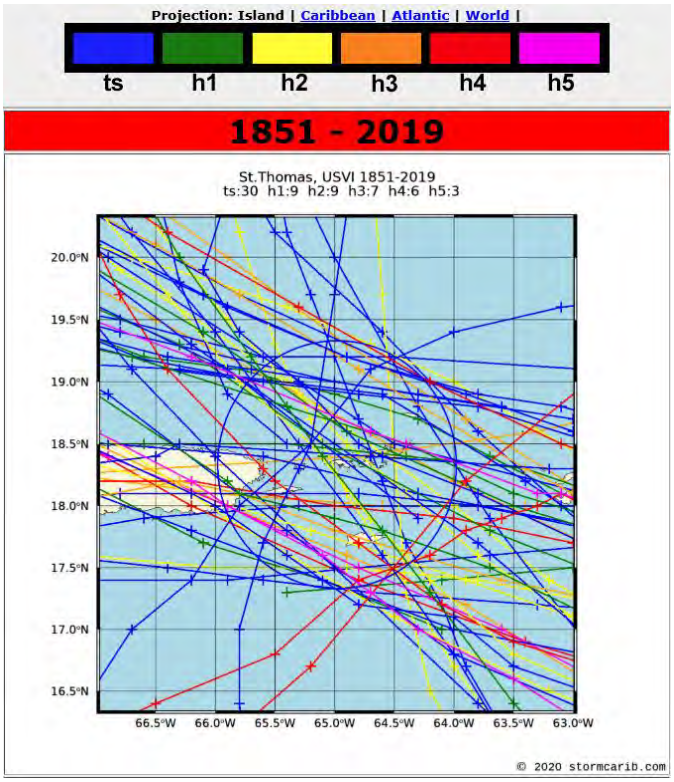


Figure 6.01.05 Tropical storms passing through the region from 1951-2019. Image from stormcarib.com

Since 1878, about six to seven hurricanes have formed in the North Atlantic each year. The total number of hurricanes (particularly after being adjusted for improvements in observation methods) and the number reaching the US Virgin Islands do not indicate a clear overall trend since 1878, however according to the total annual ACE Index, cyclone intensity has risen noticeably over the past 30 years, and eight of the 10 most active years since 1950 have occurred since the mid-1990s (Figure 6.01.06). Relatively high levels of cyclone activity were also seen during the 1950s and 1960s. The current increase in the Power Dissipation Index correlates with the rising sea surface temperature in the tropical North Atlantic experienced from the mid-1990's.

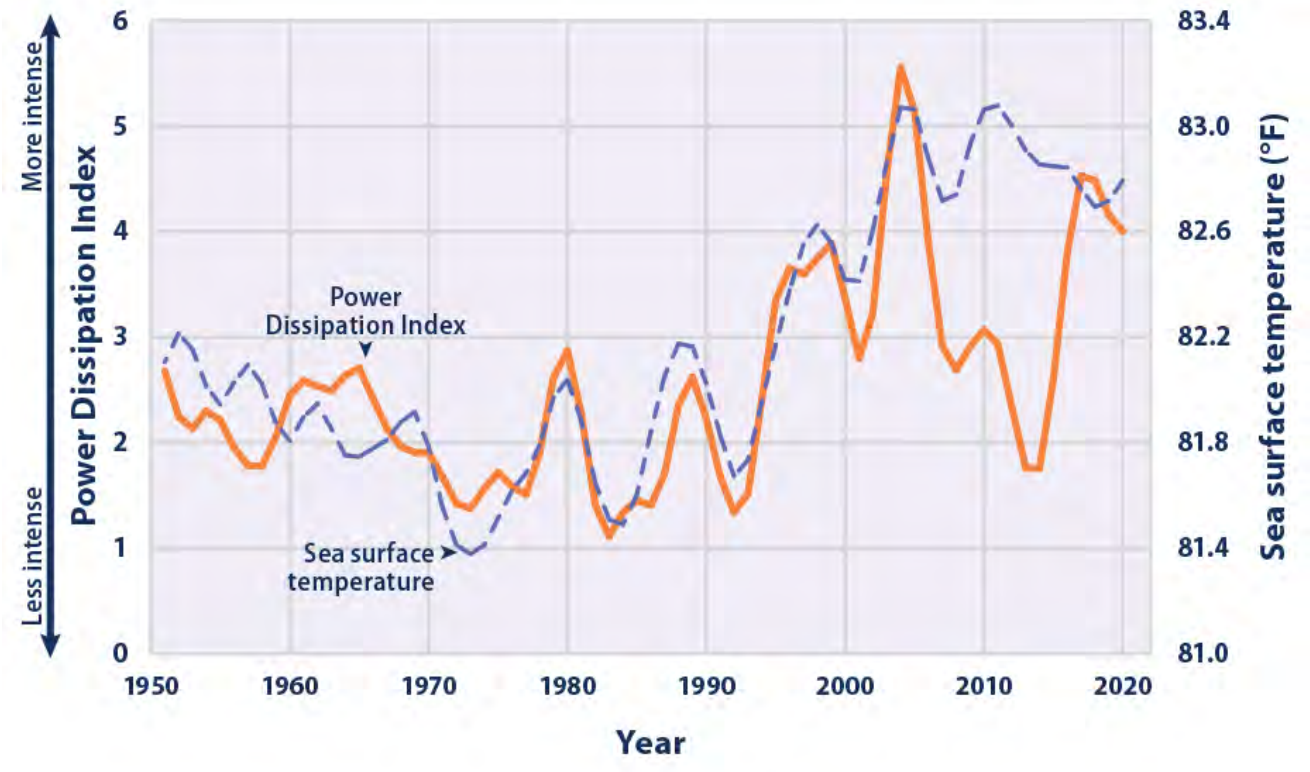


Figure 6.01.06 Annual values of the Power Dissipation Index (PDI), which accounts for cyclone strength, duration, and frequency plotted with tropical North Atlantic Sea surface temperature trends over time. (Image by Environmental Protection Agency).

IMPACTS OF WEATHER AND CLIMATE ON TOTAL ENERGY ST. THOMAS TERMINAL

TotalEnergies a business that is highly sensitive to hurricanes and hurricane preparedness. Not only is a relative fortune of monetary assets potentially at risk during a tropical cyclone, but human lives are in danger, public service to supply Jet Fuel to the airplanes to ensure continuity of airport services is at stake, and toxic materials are potentially at risk of being released into the environment.

During the hurricanes of 2017 (Irma and Maria), the main administration building on the St. Thomas Terminal site was damaged, as well as other minor structures and fueling canopies. The fuel automation system was destroyed at the fuel depot site, as was the hydrocarbon detection mechanism in the water fuel separator system.

The marine environment surrounding the TotalEnergies terminal site is especially vulnerable. The structures in the shallow, nearshore water along the unprotected western shoreline of St. Thomas are exposed to the brutal wind and wave action characteristic of the tropical storms. This was demonstrated during Hurricanes Irma and Maria in 2017, when shoreline boulders were displaced, falling to the sea bottom on top of the pipeline and SubMar mats.

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A strenuous hurricane plan goes in to effect at the terminal facility when a named storm approaches the territory. The on-site weather station in the administration office is diligently monitored. All temporary structures and containers are lashed securely to the ground, and loose equipment, hoses, lines and tools are stowed or tied down. The on-site generator, inspected regularly, is fueled and prepared for use in the case of power outage. The pipelines remain filled with seawater and all valves are locked into the closed position.

6.02 LANDFORM, GEOLOGY, SOILS AND HISTORIC LAND USE

The U.S. Virgin Islands are part of the Leeward Islands and are located on the eastern edge of the Caribbean Sea, forming the northeastern boundary between the Caribbean and the Atlantic Ocean. The major islands are volcanic in origin and are part of a submarine mountain range which includes the larger islands of the Greater Antilles (Puerto Rico, Hispaniola, Jamaica and Cuba), the Virgin Islands and the Lesser Antilles (Figure 6.02.01). This chain begins in Cuba and ends in Trinidad, off the coast of Venezuela. There are still several potentially active volcanoes in the chain, the closest to St. Thomas being Saba, 160 km to the southeast. The arc of the Lesser Antilles is an active volcanic arc above a subduction zone in which the oceanic crust of the American Plate is being carried downward under the Caribbean Plate (Figure 6.02.02). The earliest stages of island building occurred 100 million years ago, in the Cretaceous period, underwater. These first volcanic flows were later uplifted and exposed. The long period of undersea mountain building and uplift were interspersed with explosive volcanism alternating with centuries of coral reef deposits and changing sea levels. This produced the stratified volcanic rocks with minor limestone layers that we see today in St. Thomas.

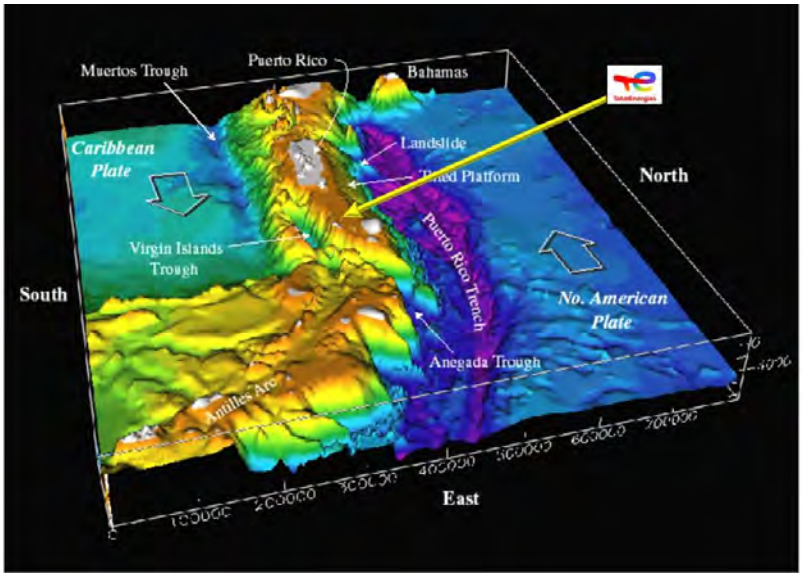

Figure 6.02.01 St. Thomas is located on top of a submarine mountain ridge that includes Hispaniola, Puerto Rico, and the Lesser Antilles. It runs for Cuba in the north to Trinidad in the south.

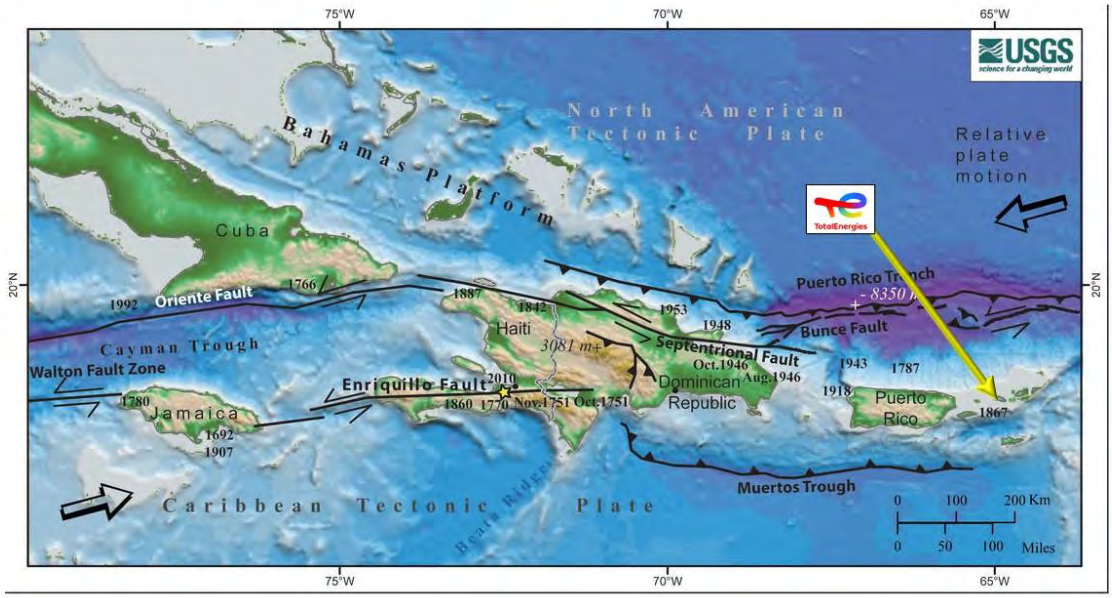

Figure 6.02.02 The arc of the Lesser Antilles is an active volcanic ridge above a subduction zone in which the oceanic crust of the American Plate is being carried downward under the Caribbean Plate. (Image from USGS 2020).

The island of St. Thomas is underlain by andesitic volcanic and volcanclastic rocks of the Louisenhoj Formation. These are believed to have been deposited in a relatively short time spanning 10 to 15 million years, approximately 100 million years ago. The center of the Louisenhoj Formation

is in Pillsbury Sound, and the formation changes from a coarse thin unit near the volcanic source to a finer grained thick unit on the west side of St. Thomas. The Louisenhoj Formation crops out in a broad belt from Savana Island across central St. Thomas to northwestern St. John and also underlies Hans Lollik Island. It is as thick as 2 kilometers on St. Thomas but thins to perhaps 0.5 kilometer at Leinster Bay, St. John. A brief interval of volcanic quiescence followed the Turonian to late Santonian (Late Cretaceous) with deposition of the Outer Brass Limestone, which includes clean calcite limestone (now marble), calc-silicate rocks, and conglomerate with calcareous cement and clasts of marble and/or andesite. The Outer Brass Limestone is 100 to 200 meters thick and crops out in a discontinuous belt broken by faults from Outer Brass Island across northeastern St. Thomas reappearing in northern St. John, between Maho Bay and Waterlemon Bay. Volcanism resumed in the Late Cretaceous, as indicated by the deposition of volcaniclastic turbidites and rare pyroxene basalt to andesite lava flows in the overlying Tutu Formation. This is the youngest layered deposit on St. Thomas. The topography of St. Thomas is rugged, steep and irregular. It is bordered by bays with small coastal islands. Fresh water lakes and coastal plains are completely absent.

Soils of Lindbergh Bay

Three soil types have been identified in the area around the TotalEnergies St. Thomas Terminal in the USGS Soil Surveys of the US Virgin Islands. These are shown on Figure 6.02.03 and listed below:

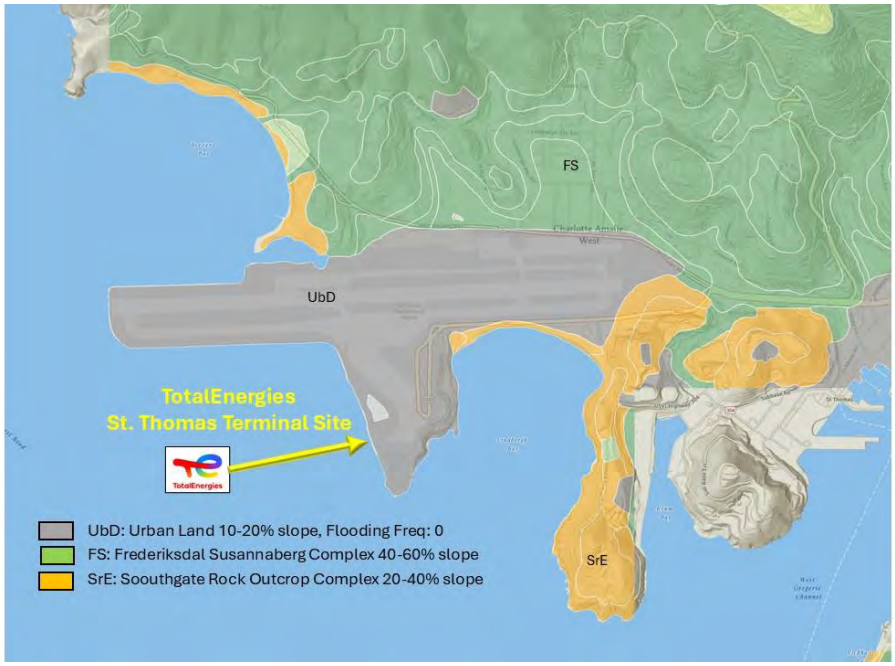

Figure 6.02.03 Soils of Lindbergh Bay around TotalEnergies ST. Thomas Terminal identified in the 2020 USDA Soil Survey of the U.S. Virgin Islands.

Frederiksted Susannaberg FsF Complex: The land above Lindbergh Bay and the airport is relatively steep and comprised of Frederiksted Susannaberg FsF Complex soils. These soils are well drained, non-saline, extremely rocky, on 40-60% slope. The water permeability is slow, organic matter high, and hazard of erosion high. The seasonal high water table is more than 6 feet deep and the chance of flooding none.

Southgate Rock Outcrop SrE Complex: The areas north and south of the airport along the sea are part of the Southgate Rock Outcrop SrE Complex. These soils on a 20-40% slope are brown gravelly loam over weathered igneous bedrock. Properties include well drained soil with moderate permeability, low water capacity, a severe hazard of erosion, a seasonal high water table more than 6 feet deep, and the chance of flooding none.

Urban Land UrD: The land on which the TotalEnergies fuel depot is built has a surface area covered entirely by gravel, asphalt or concrete. The slope is less than 20%. There is no permeability, no erosion and it is well drained. The chance of flooding is none.

Historic Land Use

The land under the TotalEnergies terminal is manmade with deposits of rock and sand used to fill and construct the Cyril E. King Airport beginning in 1980. The property has been used as a fuel depot facility since 1987, when it was constructed by ESSO. In 2009 the depot was sold to TotalEnergies and no major construction or changes or have been made since that time, with the exception of PLEM repairs made in 2019, after hurricane damage.

IMPACT OF SITE CONDITIONS ON TOTAL ENENGIES ST. THOMAS TERMINAL

Site conditions are fairly optimal for the nature of business conducted at TotalEnergies St. Thomas Terminal site. The artificially created land is flat and urbanized, with a less than marginal chance of flooding. There is no cultural or historic value in the property.

6.03 DRAINAGE, FLOODING AND EROSION CONTROL

Figures 6.03.01 show the watersheds and wetland area of Lindbergh Bay. Guts from the neighborhoods to the north flow south into Lindbergh Bay. The TotalEnergies property is unaffected by this water flow. Although originally a wetland existed where Lindbergh Bay is today (Mosquito Bay), this was filled and developed in the 1920's with the original airport development.

The property lies in Zone X as delineated on the Flood Insurance Rate Map (FIRM) created by the Federal Emergency Management Agency (FEMA; Figure 6.03.02). This designation is given to areas for very low risk of flooding.

Figure 6.03.01 Watersheds and guts in Lindbergh Bay around TotalEnergies St. Thomas Terminal.

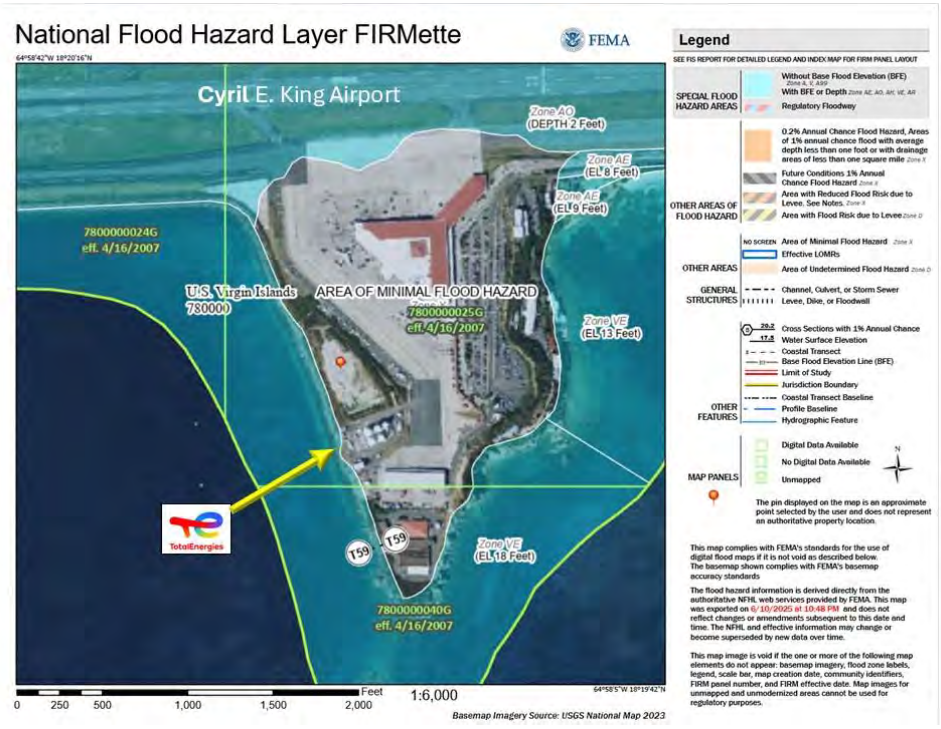

Figure 6.04.02 FEMA flood map around the project area. The TotalEnergies site is in a zone designated X which is determined to be a low risk flood zone.

6.03a *IMPACT OF FLOODING AND EROSION ON TOTALENENGIES ST. THOMAS TERMINAL*

The TotalEnergies St. Thomas Terminal sits on a filled, highly urbanized property covered in asphalt, concrete, and gravel, and no erosion is anticipated. Shoreline protection was constructed when the land was created, using large rocks and concrete boulders that protect the shoreline from all but the most severe weather

6.04 FRESH WATER RESOURCES

There are no freshwater resources that are affected by the TotalEnergies St. Thomas Terminal.

6.05 OCEANOGRAPHY

6.05.01 Seabed Alteration

There will be no seabed alteration with the continued occupancy and use of TotalEnergies St. Thomas Terminal.

6.05.02 Tides and Currents

Ocean currents around the Virgin Islands are primarily dominated by the North Equatorial Current that comes up and into the Caribbean Sea moving toward the west. In the Caribbean Sea this part of the North Equatorial Current is called the Caribbean Current. The Caribbean Current then flows north-west to join the Gulf Stream, which hugs the east side of Florida and flows north along the continental United States (Figure 6.05.02.01).

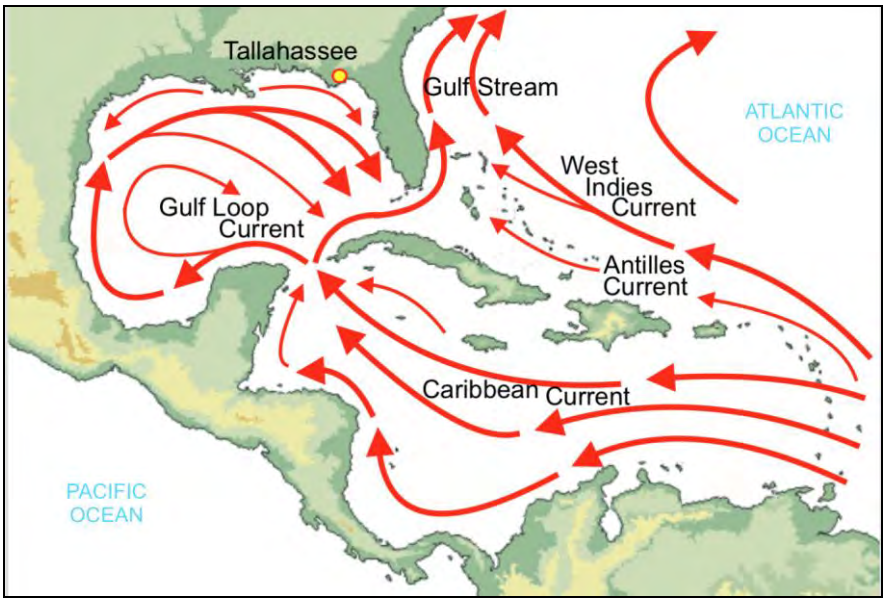

Figure 6.05.02.01 Direction of major ocean currents in the Caribbean Sea and western Atlantic near the Greater and Lesser Antilles.

The physical forcing that sets up the coastal current patterns of St. Thomas, USVI is a combination of wind-driven currents and tidal-driven currents. These forces are modified by the Coriolis effect. South of St. Thomas is a general upwelling system and north of St. Thomas a downwelling system. The predominant trade winds, from southeast to northwest, determine local movement of water along the island's shoreline. Figure 6.05.02.02 shows the location of the TotalEnergies St. Thomas Terminal in relation to this general movement pattern.

The local tidal currents around St. Thomas are not significant in terms of fluctuation, however they are complex in regard to the type of tidal influences occur on the north and south side. The Atlantic Ocean, on the north side of St. Thomas, has a semi-diurnal cycle with two high and low tides a day. The Caribbean Sea, on the south side of St. Thomas, has a diurnal tidal cycle with one high and low tide daily **(**Figure 6.05.02.03). Hawksbill Cove, adjacent to TotalEnergies St. Thomas Terminal, is located on the southwest side of St. Thomas and experiences a diurnal tidal cycle.

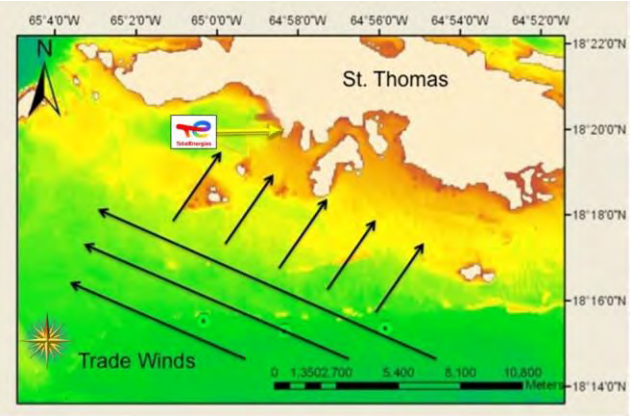

Figure 6.05.02.02 Direction of the predominant trade winds, the location of the proposed project and water movement.

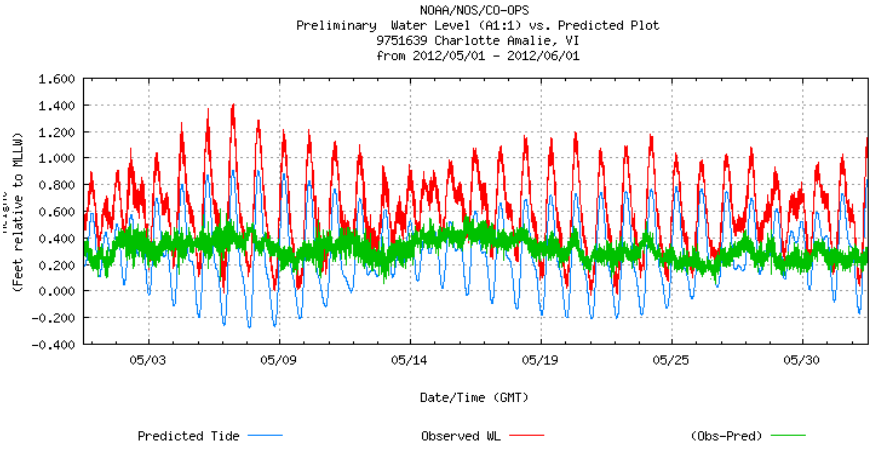

Figure 6.05.02.03 Tidal Data collected in Charlotte Amalie, VI for the month of May 2012. Tidal change displayed in feet. Note that tides are diurnal. Data obtained from the NOAA tide and currents website http://tidesandcurrents.noaa.gov

6.05.03 Waves

Surface waves around the north and south sides of St. Thomas are primarily driven by the winds, particularly the predominant trade winds as discussed in section 6.01 blowing from the east southeast. A data buoy located approximately four miles south of St. John, USVI, collects meteorological and oceanographic data in real time. It was deployed in April 2011 and has been collecting and transmitting data since that time. The average wave height from May 23, 2012, to June 23, 2012, was 1.01 meters. The maximum wave height recorded during this period was 3.37 meters and the minimum was 0.67 meters. Figure 6.05.03.03 displays the time series of wave height, maximum wave height, and wave direction.

The TotalEnergies St. Thomas Terminal is located on the southern coast of St. Thomas and is moderately effected by the wave action around the island. It is located on the western side of Red Point and so gets some level of protection from the southeast swells. Larger swells wrap around the point into the cove however.

Figure 6.05.03. Wave data collected from a real-time data buoy located four miles south of St. John.

6.05.04 Marine Water Quality

Water quality parameters measured at the TotalEnergies St. Thomas PMP site on May 21, 2025 are listed in Table 6.05.04.1. Water quality parameters of temperature (surface and bottom), pH (surface and bottom), dissolved oxygen (surface and bottom), salinity (surface and bottom), were all within the average range of water quality metrics for inshore seawater and were similar across the site and on control sites east and test of the PMP. The IDEXX method to test for *Enterococci coli* bacteria was used (ASTM International, 1999; Rice et al., 2017, Method 9230 C), where results are in MPN, which means "most probable number of colony forming units per 100mL of water". levels https://www.idexx.com/en/water/water-products-services/enterolert/. Bacterial levels were high both on-site, and on the east and west control sites, possibly a result the proximity to the urban area of Charlotte Amalie and the VIWMA sewage treatment plant, as well as the recent heavy rainfall.

Table 6.05.04.01 Water quality parameters at three random sites within the TotalEnergies terminal survey area and three control sites, taken on May 21, 2025.

SITE #	1 Control east of site	2 Control east of site	3 On-site	4 On-site	5 On-site	6 Control west of site
LOCATION	**18.330528 64.973687**	**18.331749 64.973793**	**18.331362 64.974505**	**18.331361 64.975005**	**18.331780 64.975303**	**18.333418 64.976430**
Time	11:37	11:40	11:45	11:52	11:58	12:09
Depth (ft)	36.4	29.2	37.2	38.8	39.2	40.6
Temp Surface (°C)	28.49	28.52	28.49	28.55	28.53	28.57
Temp Bottom (°C)	28.4	28.44	28.39	28.42	28.47	28.45
pH Surface	8.05	8.05	8.04	8.05	8.05	8.04
pH Bottom	8.04	8.05	8.04	8.05	8.06	8.05
Dissolved O_2 Surface (mg/l)	6.45	6.49	6.33	6.67	6.45	6.79
Dissolved O_2 Bottom (mg/l)	6.28	6.46	6.29	6.56	6.44	6.77
Salinity Surface (ppt)	36.17	36.18	36.22	36.29	36.19	36.2
Salinity Bottom (ppt)	36.47	36.31	36.33	36.56	36.26	36.51
E. coli (MPM)	109	153	75	109	7373	168168

6.06 MARINE RESOURCES AND HABITAT ASSESSMENT

A marine benthic survey was conducted on May 18, 2025, in Hawksbill Cove around the TotalEnergies St. Thomas Terminal site, as a requirement of the USVI DPNR for a Major Water Permit renewal. This survey included the area within the four MBM ship transfer station moorings, as well as 50ft to the north, south, and west of this zone. The total area was approximately 30,000 ft². A detailed report is included in this application. The objectives of the survey were to characterize the marine habitat and to determine if the current activities of TotalEnergies were impacting local flora and fauna. Multiple transects were swam across the site by divers on SCUBA to characterize substrate composition, make general habitat assessments, and photograph and quantify the presence of stony corals, macro-invertebrates, and fish (Figure 6.06.01). As mandated by the Virgin Islands Division of Fish and Wildlife and US Coast Guard, federally protected

species or species of special concern were documented. Additionally, the survey inspected the integrity of the MBMs, the fuel transfer pipes, and the SubMar concrete mats covering the pipelines, to assess any potential environmental damage due to defective underwater components present. The underwater survey was conducted over a three hour time period, habitat types were identified on Google Earth satellite images, and tables were generated with species occurrence and relative abundance. Any federally protected species encountered, either coral, invertebrate, fish or megafauna were photographed and documented.

Please see a more detailed Benthic Survey Report included with this Environmental Assessment Report.

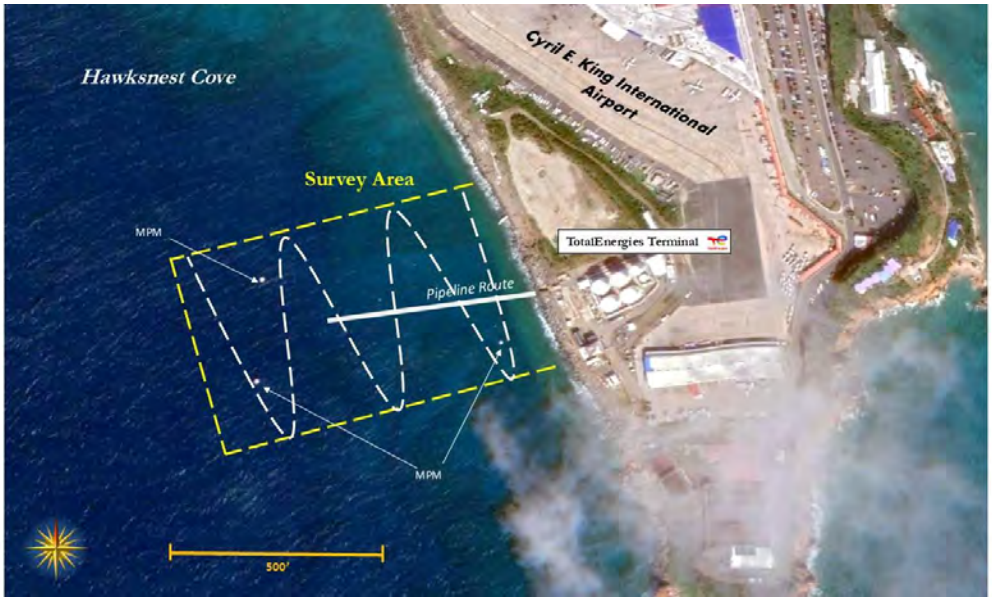

Figure 6.06.01 Area surveyed on May 18, 2025, around the TotalEnergies submarine pipeline and mooring field.

The survey site overall was a mix of large shoreline terrigenous rocks and concrete bolas, which transitioned to unconsolidated limestone rocks, rubble, and course grained sand at approximately 20 feet depth (Figure 6.06.02). The sandy region was colonized by turf and macroalgae, and sparse non-native *Halophila stipulacea* seagrass. This transitioned to a *Halophila* seagrass meadow which defined 50% of the survey area. A relic coral reef extended seaward from the shoreline on both northern and southern side of the survey area, and a third reef was found in the center of the site (Figure 6.06.02 and 6.06.03). These reefs ranged in depth from 25 feet to 55 feet, where they were met by sand and seagrass.

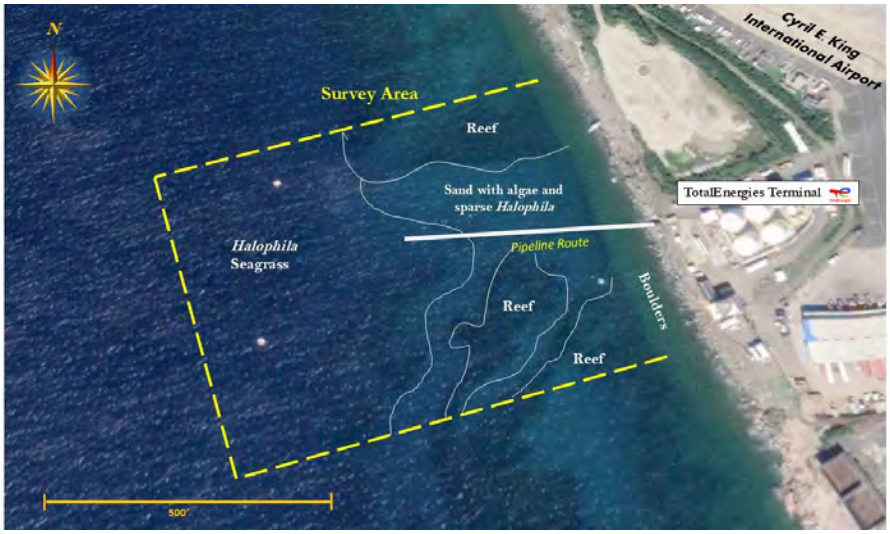

Figure 6.06.02. Site map with marine benthic survey area outlined and the benthic types delineated in the Google Earth aerial image taken in 2018 (Google Earth, 2018).

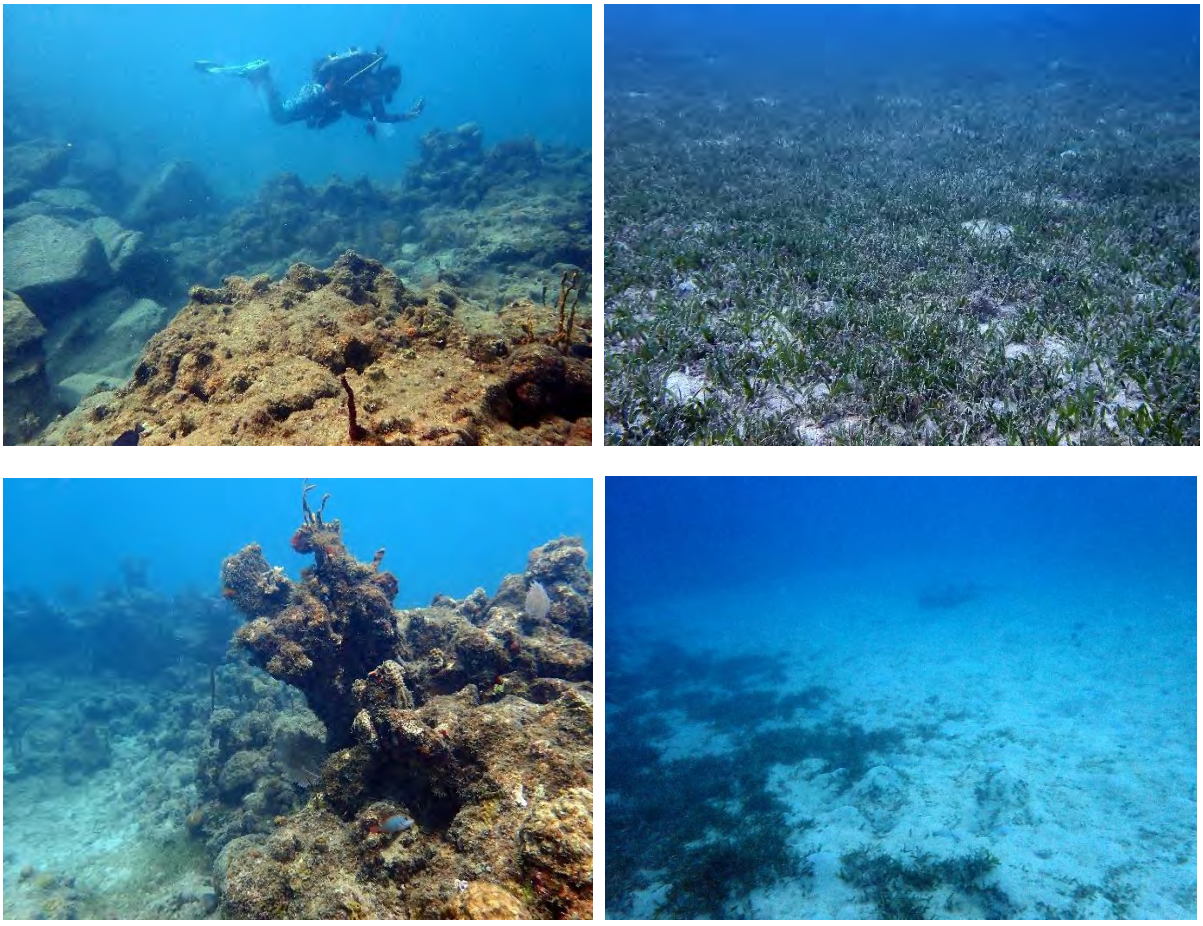

Figure 6.06.03 The survey area was covered in terrigenous rocks and boulders near the sea wall, which transitioned to sand, seagrass and relic limestone reef further offshore.

The relic reef was covered primarily in macro-algae throughout this survey site, but was estimated to support 2% living coral, a variety of sponges and gorgonians, and various invertebrates. Despite the reef degradation, a relatively high diversity of coral with 23 species identified. Furthermore, there were 5 coral species that are designated as "Highly Susceptible" species (HSS) for Stony Coral Tissue Loss Disease (SCTLD) (NOAA Coral Disease and Health Consortium). The introduction of hard bottom (pipes, waffle concrete SubMar mat, terraneous shoreline rocks), has produced more available space for opportunistic benthic settlement. It was noted that along these novel hard bottoms, coral recruitment (juvenile corals measuring less than 4 cm diameter) was high, particularly in the starlet and finger coral genera (*Siderastrea* and *Porites)*, as well as HSS colonies of maze coral (*M. meandrites)* and grooved brain coral (*D. labyrinthiformis).* In addition to corals, various sponges, invertebrates, and encrusting gorgonians were observed, capitalizing on the new hardbottom substrate (Figure 6.06.04).

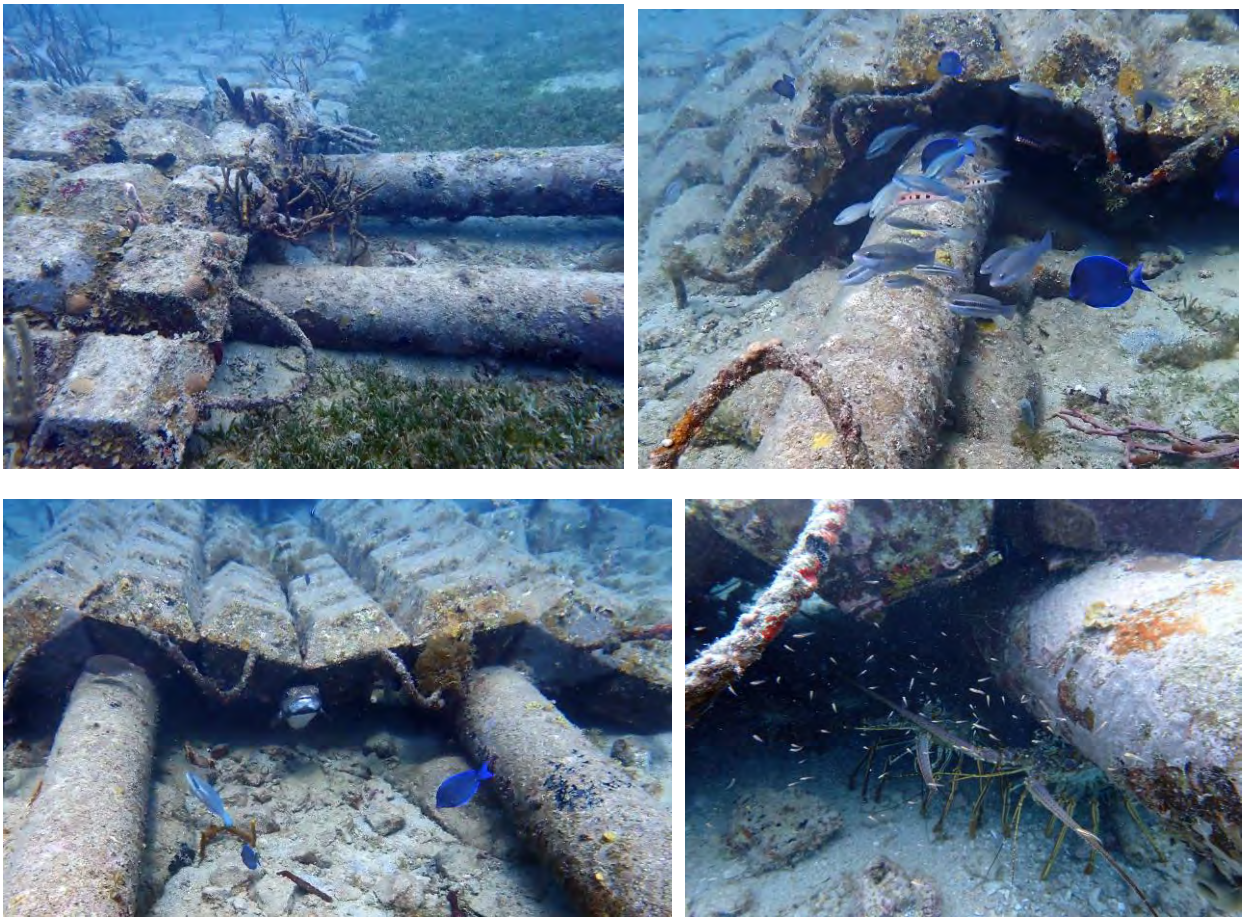

Figure 6.06.04 Many organisms colonized the concrete mats and shoreline boulders. Others used the structure for protection and grazing.

Fish diversity was also high across the pipeline, boulders, and relic reef areas (Figure 6.06.5). Over 80 species of fish were observed within the three hour survey. Many juveniles were recorded of the

grunt (*Haemulon*) and parrotfish (*Scaridae*) families. The shoreline boulder habitat provided areas of turf algae for grazers like parrotfish and surgeonfishes, as well as crevasses for fishes to hide, like a nurse shark (4 ft) and lionfish, a voracious, non-native predator (Figure 6.06.05). Three Nassau grouper (*Epinephelus guttatus*) were observed on the site as well as dog snapper (*Lutjanus jocu*) and mahogany snapper (*L. mahogani*). Ecologically and commercially important species were found including lobster (*Panulirus argus*) and queen conch (*Aliger gigas*).

Table 6.06.05 Fish diversity was high in the survey area around the TotalEnergies mooring field.

See "A Marine Benthic Survey off St. Thomas, USVI Around the TotalEnergies Submerged Pipeline" attached to this report for detailed species lists and descriptions.

6.07 TERRESTRIAL RESOURCES

There are no terrestrial plants or animals on the site. No changes in the terrestrial resources are expected with continued occupancy and usage of the property.

6.08 WETLANDS

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Although the property was possibly part of the Mosquito Pond wetlands in the 1920's, no wetlands have existed near the site since the original airport development.

6.09 RARE AND ENDANGERED SPECIES

This survey area around the TotalEnergies Terminal mooring field and PMP supports a variety of protected corals, fish, and megafauna. Three species of coral present at the site are listed as ESA "Threatened" (*Orbicella annularis, Orbicella faveolata*, and *Orbicella franksi)*. In addition, five species of coral present are listed as "Highly Susceptible Species" corals (*Meandrina meandrites, Eusmilia fastigiata, Diploria labyrinthiformis, Pseudodiploria strigosa,* and *Colpophyllia natans;* Figure 6.09.01) An additional ESA "Threatened" species observed during the survey was the Nassau grouper (*Epinephelus striatus;* Figure 6.09.02). Finally, the federally protected hawksbill turtle *(Eretmochelys imbricata*) observed during the survey and illustrates the importance of the near shore reef as critical habitat for juvenile and adult hawksbill turtles (Figure 6.09.03).

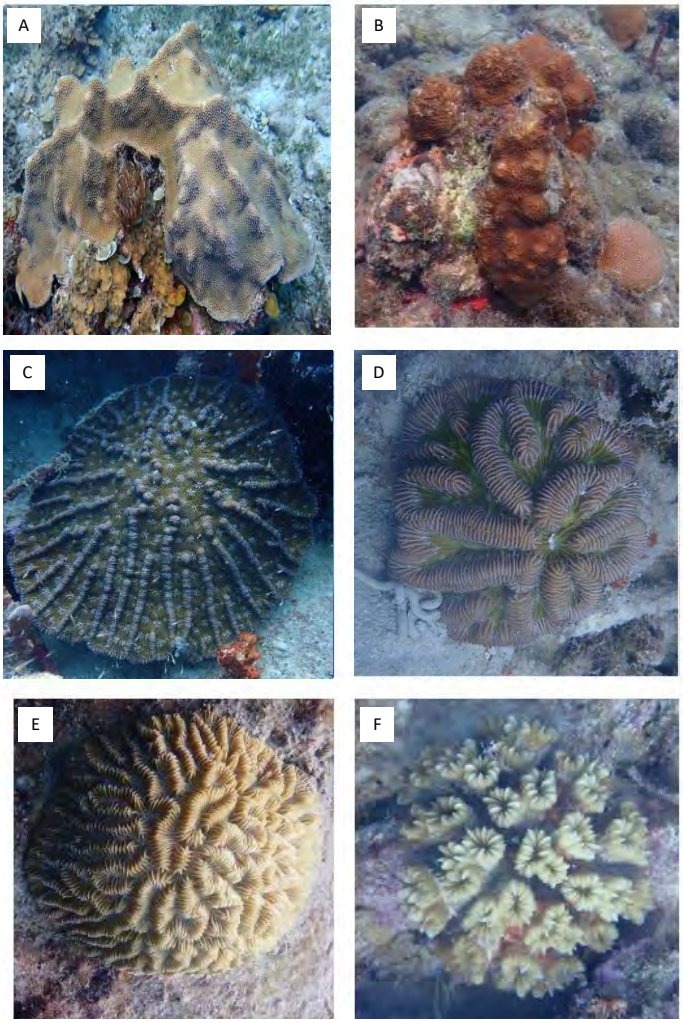

Figure 6.09.01 A – E. Rare, HSS, and ESA Threatened corals observed and photographed on the reef, boulders, and pipeline habitats: A) Mountainous star coral (*Orbicella faveolata)*, B) Boulder star coral (*Orbicella franksi)*, C) Knobby cactus coral (*Mycetophyllia aliciae), D)* Boulder brain coral *(Colpophyllia natans)*, *E)* Maze coral (*Meandrina meandrites), and F)* Smooth flower coral *(Eusmilia fastigiata).*

Figure 6.09.02 Three Nassau grouper sea turtle were observed during the three hour benthic survey in the mooring field of the TotalEnergies St. Thomas Terminal.

Figure 6.09.03 One hawksbill was observed on the relic reef on the TotalEnergies St. Thomas Terminal

6.10 AIR QUALITY

All of St. Thomas is designated Class II by the Environmental Protection Agency. In Class II Air Quality Regions the following air pollutants are regulated: open burning, visible air contaminants, particulate matter emissions, volatile petroleum products, sulfur compounds, and internal combustion engine exhaust (Virgin Islands Code Rules and Regulations). TotalEnergies St. Thomas

Terminal currently complies with these regulations and the continued occupancy and use of the property will not involve any such activities.

7.00 IMPACTS ON THE HUMAN ENVIRONMENT

7.01 Land and Water Use Plans

Land and water use plans will remain the same with continued occupancy and usage of TotalEnergies St. Thomas Terminal.

7.02 Visual Impact

The visual impact will remain the same with continued occupancy and usage of TotalEnergies St. Thomas Terminal. With the proposed reconstruction of the Administrative Building, the visual impact will be very positive.

7.03 Impact on Public Services and Utilities

There will be no impact on public services and utilities with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.

7.03a Water

There will be no change on water demand with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.
.

7.03b Sewage Treatment and Disposal

The continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed will have no impact on the current sewage treatment and disposal because it will continue operation as is.

7.03c Solid Waste Disposal

There will be no change on solid waste disposal demand with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.
.

7.03d Roads, Traffic and Parking

There will be no change in the roads, traffic or parking with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.
.

7.03e Electricity

There will be no additional impact on electrical usage with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.

7.03f Schools

The nearest school to the property is the University of the Virgin Islands, approximately one mile away. There will be no impact on this or any schools with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.

7.03g Fire and Police Protection

As part of the planned projects, TotalEnergies will improve existing firefighting means in order to have on the site a dedicated system with which any fire scenario can be attended and extinguished without the need for external assistance or equipment from the airport.

7.03h Health

There will be no impact health with the continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed.

7.04 Social Impacts

Continued occupancy and usage of TotalEnergies St. Thomas Terminal will produce positive social impacts by providing fuel for local, regional and national transportation needs, and all other services that require Jet Fuel or diesel oil. Currently there is no other facility of this type on the island.

7.05 Economic Impacts

The continued occupancy and usage of TotalEnergies St. Thomas Terminal will have very positive economic impacts on St. Thomas and the territory of the US Virgin Islands. Currently no other Jet Fuel depot exists on St. Thomas. The Terminal supplies Jet Fuel to the Airlines, both major and regional, fuel base operators, and any aircraft on demand, including emergency services. Cyril E. King Airport, one of the largest in the eastern Caribbean, reported over 1.5 million customers from 2015-2016 (Wikipedia). The Airport services not only St. Thomas and St John, but also visitors to the British Virgin Islands. In addition to bringing in tourist dollars via airplane travel, the fuel distributed by TotalEnergies helps supply the public and private ferries, yachts, generators and diesel run vehicles that sustain the tourist trade in the US Virgin Islands. Without the operation of TotalEnergies St. Thomas Terminal, millions of dollars could be lost from the local economy.

7.06 Impacts on Historical and Archeological Resources

The continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed will have no impact on historical or archeological resources. The depot is built on fill that extends into the sea.

7.07 Recreational Use

The continued occupancy and usage of TotalEnergies St. Thomas Terminal will have positive impacts on recreation in St. Thomas. The depot helps to cover fuel demands for personal, recreational vessels and vehicles, as well as commercial vessels participating in recreational ventures (i.e. charter fishing boats, ferries, commercial dive boats, tour boats, charter sailboats).

7.08 Waste Disposal

The continued occupancy and usage of TotalEnergies St. Thomas Terminal and the improvements proposed will not impact waste disposal. Solid waste is collected in a large public dumpster that is serviced regularly by a private waste hauler.

7.09 Accidental Spills

The possibility of an accidental spill is always present in a fuel depot setting with above ground fuel tanks, expanses of pipe and manifolds, heavy trucks and equipment, and a subsea pipeline. The Applicant must stay in compliance with the US Coast Guard, the EPA, the Federal Aviation Association and OSHA to continue operations with the Airport. The facility is inspected by all of these agencies. Appropriate spill booms must be maintained in excellent condition on site, and an emergency spill action plan must be in place and practiced. TotalEnergies St. Thomas Terminal trains employees and conducts safety drills that include spill simulations at least once every three months. They store spill containment equipment along the property shoreline in secure trailers and keep all equipment well maintained and organized. TotalEnergies has a US Coast Guard Facility Response Plan in place for the St. Thomas Terminal facility, as required by 33 CFR 154.

7.10 Potential Adverse Effects that Cannot be Avoided

Adverse effects that cannot be avoided with continued occupancy and usage of TotalEnergies St. Thomas Terminal include disturbance of sealife by barges and tankers delivering fuel. The noise created by large vessels has been shown to disturb both fishes, invertebrates and sea turtles with studies documenting effects that include behavioral and acoustic responses, auditory masking, and stress (Erbe et al. 2019). The Terminal maintains an exclusion area around the facility so no other vessels can enter (which otherwise could be expected almost daily), thus actually minimizing the impact of noise pollution around the site.

8.00 MITIGATION

Mitigation for continued occupancy and usage, and the improvements proposed, is not deemed necessary.

9.0 ALTERNATIVES TO PROPOSED ACTION

We consider there shall be 3 options evaluated:

1. Discontinue occupancy

If occupancy were discontinued and the depot closed, aviation activity would be severely impacted and most of the airlines would reduce in a very dramatic and negative way the number of flights due to the lack of Jet Fuel. The supply of Jet Fuel to airlines is performed according to international standards (JIG) and airline requirements to ensure quality of product which is critical for the safety of aviation. To comply with these requirements, independently of supply mean (vessel or truck), it would require a similar facility with several tanks to ensure fuel availability, filtration and quality control. As there is no alternative facility complying with these requirements in St. Thomas, a new site would have to be developed and constructed.

2. Continue occupancy as it is

Continue to operate the site under the actual conditions, only performing common and regulatory maintenance.

3. Continue occupancy and perform proposed improvements

The improvements proposed by the Applicant as detailed in the "Project Summary" attached to this application, and particularly the new loading rack and Firefighting system, intend to implement the newest standards for this kind of facility, with the final objective being to increase the safety of the facility as well as its resilience in the event of extreme weather occurrences. As the improvements remain within the actual site footprint and none of them will create additional environmental impacts, this is the most favorable option.

10.00 RELATIONSHIP BETWEEN SHORT AND LONG TERM USES OF MAN'S ENVIRONMENT

The property at TotalEnergies St. Thomas Terminal has been in use as a refined fuel depot for 35 years. The location of the property, on the west side of Red Point, provides some protection from the normal weather patterns experienced on the island and is a direct arrival point for fuel delivery ships sailing from Puerto Rico. The owners and managers of TotalEnergies St. Thomas Terminal remain in compliance of several agencies and must maintain the highest standards in equipment condition and maintenance, training, drills, emergency procedures, and record keeping in order to work with the Airport and the aviation industry on the island. Applicable rules in the Code of Federal Regulations must be followed stringently, keeping the facility as safe and environmentally clean as possible. The maintenance and improvements proposed by TotalEnergies will provide additional long term safeguards with the installation of a fuel rack canopy and filling controls (further preventing hydrocarbon products from entering the environment) and a dedicated onsite Firefighting station. The US Virgin Islands is an isolated territory that depends on transportation by air or sea for its major source of income, tourism. This has continued to grow over the last few decades, and the demands of the Cyril E. King Airport and aviation industry have increased according. Continued occupancy of the TotalEnergies St. Thomas Terminal, with the improvements, maintenance and upgrades that are being proposed, is important for both short term and long term economic growth and are the most advantageous options for the Territory moving forward.

11.00 REFERENCES

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