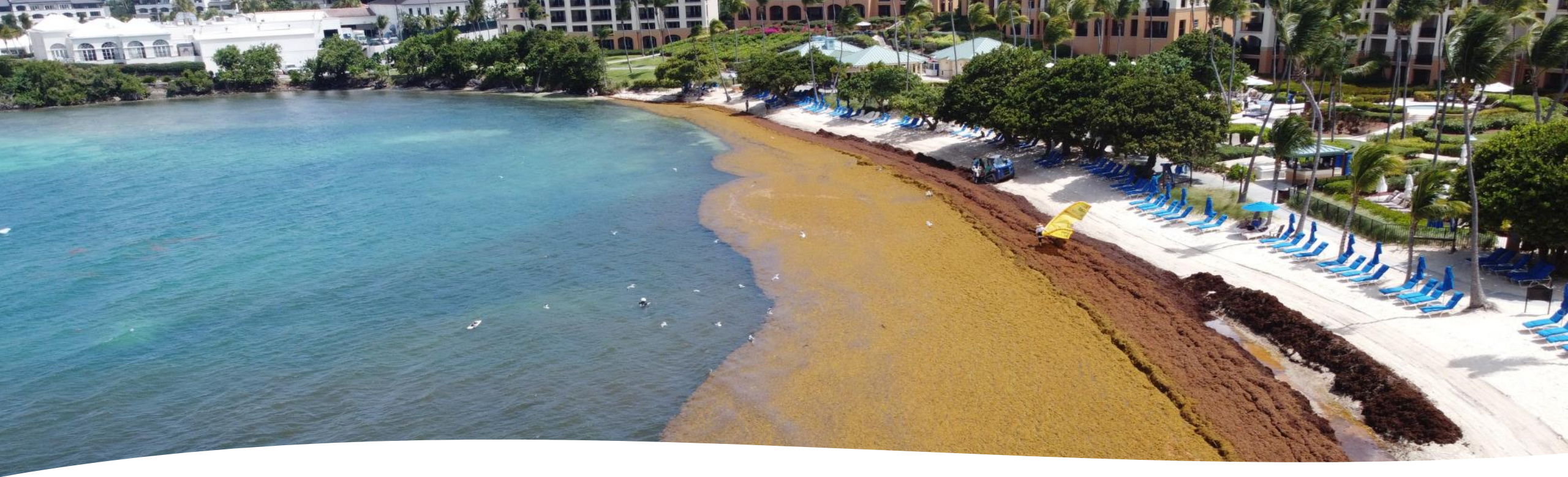


An aerial photograph showing a tropical beach area. The water on the left is clear and blue. A large, thick mat of brown and yellow Sargassum seaweed has washed onto the beach, covering a significant portion of the sand. In the background, there are several large, multi-story buildings, likely hotels or resorts, with palm trees and other tropical vegetation. Blue lounge chairs are scattered on the sandy areas not covered by seaweed. A yellow beach umbrella is visible near the seaweed. The overall scene illustrates the environmental and economic impact of Sargassum on a coastal territory.

Impact of Sargassum on the Territory

Economic and Environmental Impacts



The now annual inundations are far more than “just a nuisance” to the territory, without thoughtful planning and management, sargassum could irreversibly damage the coastal and marine resources and infrastructure upon which the U.S. Virgin Islands’ economy, and legacy, is built.



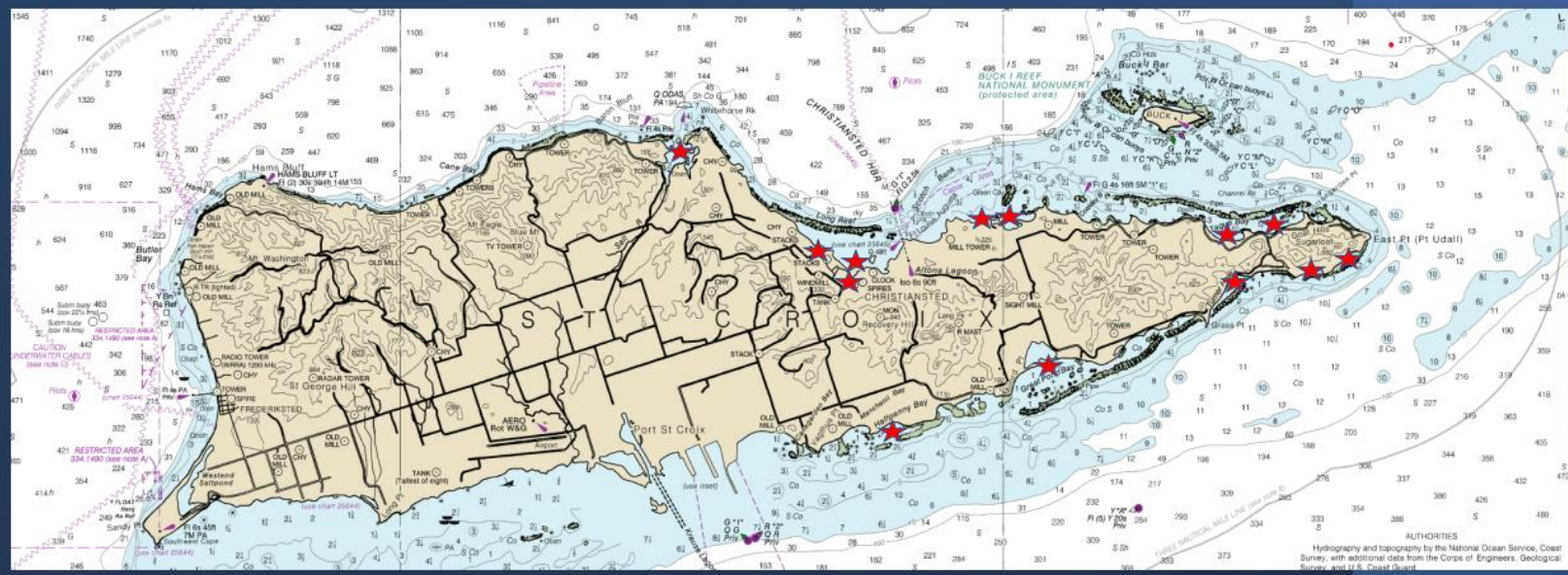
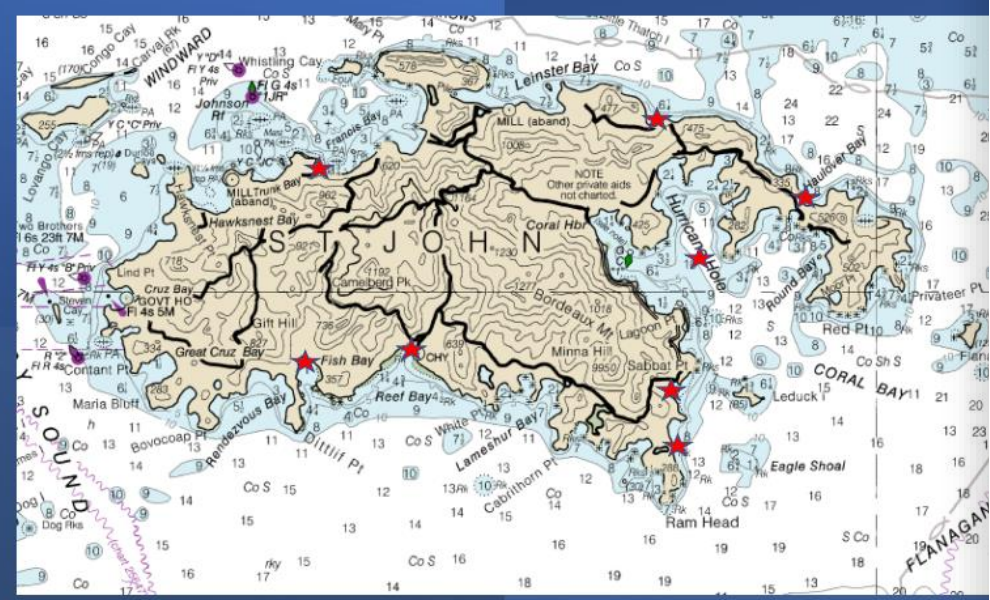
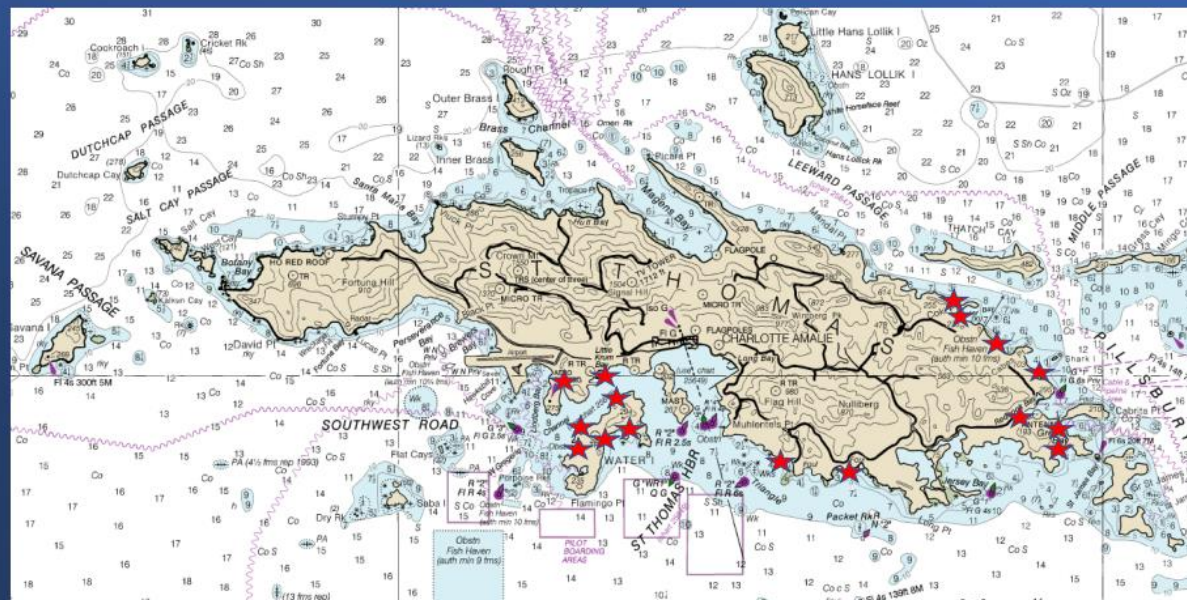
Anecdotal evidence and emerging research indicate that coral and seagrass are being smothered, scoured, and/or poisoned by sargassum's seasonal arrival to the territory. Seaside hotels are losing guests, and, in the age of social media, potential visitors are deterred by the images of sargassum-laden beaches that circulate the Internet. Local fisherfolk and boaters have incurred heavy costs from the degradation of vessels and equipment moored in marinas where trapped rafts of decomposing sargassum acidify calm waters that were once protective. In addition, coastal communities, who have already been financially impacted by sargassum landings, are coming to grips with the health implications of prolonged exposure to sargassum-emitted hydrogen sulfide fumes.



Disposal – Costly and Damaging

The primary method of disposal is to rake it up from the beach either by hand or machinery and dispose of it in the landfill. We are not only disposing of Sargassum but large quantities of sand. Hotels must then renourish their beaches.





AUTHORITIES
 Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.



Bioimpact, Inc. conducted an online survey of local residents impacted by sargassum on St. Croix, St. John, St. Thomas, and Water Island. A total of 221 residents completed the survey. Key findings are as follows:

- The majority of survey respondents correctly identified sargassum as a seaweed or algae (91%) and acknowledged that the other islands in the Caribbean have pelagic sargassum “like we do in the USVI” (84%).
- The highest percentage of respondents (36%) believed the Sargasso Sea to be the origin of the sargassum that reaches the territory. Only two people correctly identified the GASB as the origin of the influxes.
- Respondents were split with regards to whether sargassum has any potential benefits. Among those who believed that it does, half (57%) believed that sargassum’s benefit was to the marine environment followed by agricultural use (36%).
- Nine out of ten respondents reported having been negatively impacted by sargassum. When asked how, the most common response was that sargassum had negatively impacted their recreational activities (79%), followed by their business / industry / job (32%), and property (land) / home / Homeowner Association ([HOA], 28%).
- With regards to self-report adverse health impacts, a little over one quarter (28%) of respondents believed that exposure to sargassum, in water or on land, had ever affected their health. Headache was the most common issue, followed by breathing problems and itchiness and/or rashes.
- The majority of respondents (83%) were either not sure or didn’t believe that something was being done to manage, prevent, or monetize the sargassum that arrives in the USVI.
- The majority of respondents (79%) believed that a territory-wide committee on sargassum should be created. When probed on who should be on the committee, respondents overwhelmingly suggested a joint public-private partnership. Representatives from DPNR agencies, the University of the Virgin Islands, marine biologists, the Department of Tourism, hotel/villa operators, and local environmental/conservation groups were frequent suggestions for members of the committee. Representatives from condo boards, the charter/marine industry, fisherfolk, and beachfront businesses were also recommended from the private sector. Other government agencies mentioned included the Waste Management Authority, the Department of Health, the Department of Agriculture, and the Governor’s Office.

Bioimpact, Inc. interviewed key informants whose businesses, agencies, industries, or livelihoods directly deal with, or have been directly impacted by, influxes of pelagic sargassum in the territory. Across the board informants cited losses of revenue and environmental damage.

TNC in St. Croix stated:

“When sargassum rots, it creates an anoxic zone and high ammonia levels and, of course, ammonia is one of the most toxic chemicals for corals... As soon as there’s a wave [of sargassum], about a week later we get spikes in ammonia that are about four times the lethal limit to corals... For example, a 0.2 [parts per million] concentration would be very stressful [to coral] and for longer periods [of time] would kill the coral. We’re [finding ammonia levels at] 5 ppm.”

Hotels and Charter Companies all have experience significant losses of revenues from cancel stays and charters.

“We catch less fish. We are spending more time clearing lines, which is more time with the lines out of the water and the lines and lures are catching sargassum in the water so much that the fish won’t bite them.”
– Charter Captain and Recreational Fisher, St. Thomas

“[When sargassum is bad], the guests start checking out in droves. We had that for about a week and a half.” – Hotel Operator, St. Croix

“Us spending \$200,000 a year to remove sargassum is a burden.” – Marina Operator, St. Thomas”

Conclusions

1. Develop and formalize a comprehensive sargassum management plan. \
2. Create a multi-sectoral working group on sargassum for the territory, as well as a Sargassum Task Force at UVI.
3. DPNR-CZM and DFW should work with the Antilles Division of the USACOE to review and finalize a Regional General Permit for sargassum in the USVI.
4. Develop and disseminate sargassum information on a website.
5. Locally appropriate materials should be developed and disseminated for the territory to educate the different sectors on sargassum.
6. The Government of the USVI (GVI) should allocate funds to support sargassum mitigation and management in the territory. Sargassum and agriculture need to be locked in separate boxes
7. DPNR should create a Sargassum Coordinator position that would be in charge of overseeing the territory's sargassum strategy.
8. Sargassum must be intercepted before it reaches the shore and there is available research for determining at what distance from shore sargassum stops being a productive habitat.
9. Much like climate change, sargassum should be incorporated into any plans, permits, or policies related to the waters of the territory of the USVI. Opportunities to valorize sargassum have to be explored in earnest, as it is the only way to sustainably fund mitigation and clean-up measures in the territory.
10. Sargassum influxes are not unique to the USVI and, as such, we cannot, and should not, operate in a vacuum.