PLANNING OUR FUTURE

THE COMPREHENSIVE LAND & WATER USE PLAN

DECEMBER 2024

ACKNOWLEDGEMENTS

This Comprehensive Land & Water Use Plan honors the work and dedication of countless individuals, not only for this current effort but all the past efforts to adopt such a plan over the last 50 years.

35TH LEGISLATURE OF THE UNITED STATES VIRGIN ISLANDS

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CONSULTANT TEAM

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INTRODUCTION

Welcome to the United States Virgin Islands Comprehensive Land & Water Use Plan!

The effort to create a Comprehensive Land & Water Use Plan in the USVI resulted in several documents that collectively articulate the vision and implementation program for land and water use in the USVI. This document is the official Comprehensive Land & Water Use Plan (Plan) presented to the USVI Legislature for adoption. The Plan includes the most important information to make sure everyone in the USVI is working toward the same goals. The document tells the story of USVI residents' vision for the future, discusses the key issues the Territory needs to address, and then lays out the Goals, Policies, and Strategies to realize that vision. The Plan includes Goals, Policies, and Strategies for the entire Territory. It also has individual sections for each of the three major Islands.

Finally, there is an Implementation Matrix that identifies responsible parties and timeframes to implement the necessary actions.

In addition to this Plan adopted by the USVI Legislature, other supporting documents were developed that either provide additional context or more detail regarding implementation. These documents include:

CLWUP Implementation Program

This document was developed to dig deeper into the Implementation Matrix and map out implementation steps for government divisions going forward. The Department of Planning and Natural Resources (DPNR) will serve as the steward of the Implementation Program, using it as a roadmap for implementation. This document looks more closely at the first 5-10 years of implementation and considers priorities for different initiatives, how different initiatives may fit together, where staff capacity will be a limitation, and where additional resources will be needed. The document also explores some of the more complex recommendations in the CLWUP, identifying key decision points, potential models for consideration, conceptual work plans, and important gaps in information that need to be filled.

CLWUP Supporting Materials

The Supporting Materials include Baseline Reports and Process Documentation.

Baseline Reports were prepared at the beginning of the planning process. They are a snapshot of existing conditions for land and water use, housing, parks, roadways, services, the local economy, historic and natural assets, and other characteristics that impact the quality of life in the USVI. The Baseline Reports include inventories and data collected from a variety of local and federal sources, government staff interviews, outreach to key stakeholders, and review of existing reports, plans, and other documentation. The Reports provide a valuable reference for readers of the adopted plan, as well as a tool for government staff when deliberating policy decisions, writing grants, or considering permit applications.

The Process Documentation includes many of the materials that document public discussions, interim deliverables, and other milestones that document the process and public input over the 18-month planning period.

Summary of Products from the CLWUP Process

COMPREHENSIVE LAND AND WATER USE PLAN	CLWUP IMPLEMENTATION PROGRAM	CLWUP SUPPORTING DOCUMENTS
• Policy narrative • Goals, Policies, and Strategies • Territory-wide policies • Individual major islands • Implementation matrix	• Staff capacity • Key decision point • Models • Overlapping strategies • Conceptual work plans • Data gaps	• Baseline Reports • Process Documentation
Adopted by the Legislature	Developed and administered by DPNR	Background Resource

While Comprehensive Land & Water Use Plans have been drafted in the past, they were not adopted by the USVI Legislature. DPNR spearheaded this most recent effort to build a plan based on inclusive community engagement that speaks directly to the issues affecting residents, property owners, and businesses throughout the Territory. This plan is an important tool that will be used to make decisions regarding:

- What ***new development*** looks like and where it happens.
- How the USVI will balance ***competing uses for its waters*** such as boating, fishing, swimming, mooring, etc.
- How to ***protect*** environmentally sensitive areas, waters, coastlines, and historic sites.
- Prioritizing future investments in ***community services*** and ***infrastructure*** that promote fairness and equity.
- Making sure the ***land and water use decision making process*** is fair, equitable, and consistent.

Its most important purpose is to protect and enhance the resources in the USVI that make it a great place to live, both for today's residents and future generations.

WHY ADOPT THIS PLAN?

LEGAL CONTEXT

The USVI has long recognized the value of comprehensive planning. In 1970, the USVI Legislature affirmed the importance of developing a comprehensive plan to guide growth when it passed Act 2774, which states:

"The Government of the Virgin Islands has a positive interest in the establishment of a planning process and in the preparation and the maintenance of a long-term comprehensive plan for the physical, social, and economic development of the Virgin Islands which can serve for all departments and agencies."

Furthermore, the Governor's Reorganization and Consolidation Act of 1987 mandates that DPNR prepare a long-range comprehensive plan for the physical, social, and economic development of the USVI. In April 1989, Governor Farrelly released the Guidelines for the Development of a Long-Range Comprehensive Plan for the United States Virgin Islands, stating that it is the intent of those guidelines to serve as a policy framework within which "*we shall move forward, with the approval of the Legislature, to develop the Comprehensive Plan for physical, social and economic development of the Virgin Islands*." These guidelines were formally adopted in 1991.

The USVI has experienced a significant population increase since the enactment of Act 2774 in 1970. The last 50+ years have seen a gradual intensifying of problems related to increased traffic congestion; the rising cost of housing, food, and other living expenses; rapid development of land, associated with a significant loss of environmentally sensitive areas and open space; degradation of water quality; and the rapid development of coastal areas and beaches. This was noted in the draft Comprehensive Land & Water Use Plan from the 1990s and is increasingly true today.

Promoting community participation at CLWUP Town Hall meetings.

SETTING EXPECTATIONS

There have been several attempts at developing and adopting a CLWUP over the past 50 years. Due to the time that has passed and the multiple plans that have been drafted but never adopted, the CLWUP has attained a legendary status in the minds of many residents. Whether one is a homeowner, academic, business owner, builder, or conservationist—the lack of a Plan can become symbolic of the many things going wrong in the Territory and, consequently, adopting a Plan is often viewed as a cure-all that will "fix" all these problems. The reality of the Plan is that it is not a cure-all for every challenge related to land and water use in the USVI. However, the Plan will establish a new policy framework for making decisions about land and water use and stewardship to enable better, more consistent outcomes for residents and the environment, and reduce the opportunity for spot zoning.

Even with a perfect plan, if there is such a thing, the USVI will continue to struggle with capacity issues related to staffing, funding, etc. Also, while the Plan proposes many strategies considered to be "best practices" across the country, it also acknowledges these may not be a good fit for the USVI. Challenges related to topography, water availability, natural hazards, cultural preferences, historic development patterns, limited financial resources, and more—these can serve as barriers to adopting these "best practices" without some modification. In that regard, the Plan walks a fine line, ambitiously advocating for the changes USVI residents want to see while acknowledging the current limitations of staffing, funding, physical conditions, and more.

Notably, past drafts of the Plan were presented to the Legislature as part of a larger package, which included new zoning, subdivision, earth change, billboard, antiquities & cultural properties, and coastal zone management laws and land and water use maps. Regulatory amendments and mapping are critical next steps, and the Territory will embark on these efforts soon after this Plan is adopted. It is the opinion of many U.S. Virgin Islanders who were involved in past CLWUP efforts that the proposed law amendments and mapping changes in past plans were amongst the major obstacles in getting them adopted. In many ways, it was too much to consider at once. This Plan focuses on developing a new framework for decision making. Once that framework is in place, the individuals and institutions involved can begin the process of amending laws and maps to better reflect the vision of this plan.

Finally, it is very important to note that during the public engagement for this plan, DPNR heard feedback on many topics that are vital to people's lives, but that are not easily addressed in a CLWUP. People brought up concerns related to local education opportunities for children and adults; access to better healthcare; marketing for local agricultural products; issues related to taxation; and many more. While these specific ideas may not be directly reflected in this Plan, they have been heard. DPNR and other agencies, the Governor's Office, and the Legislature know they have a great deal of ongoing work to address these other needs and challenges outside what the CLWUP can do.

WHAT IS OUR VISION?

In adopting the Guidelines for the Development of a Long-Range Comprehensive Plan for the United States Virgin Islands in 1991, the Territory set the stage for this Plan. Overall, the vision laid out in those guidelines remains relevant, and this Plan pays homage to all the hard work and dedication shown by countless Virgin Islanders who never gave up on realizing that vision.

- **Planning –** Achieve a quality living environment through a well-planned mix of compatible land and water uses, while preserving the integrity of the natural environment.
- **Natural Resources –** Protect, preserve, and restore the natural environment of the U.S. Virgin Islands.
- **Water –** Achieve fulfillment of both water quality and quantity needs in the U.S. Virgin Islands.
- **Population –** Achieve a population size and geographic distribution which is consistent with the social, economic, and physical capabilities of the Territory, and reflects the desired qualities of life.
- **Transportation –** Achieve a reliable transportation system that promotes safe, energy efficient, convenient, affordable, and efficient movement of people and goods.
- **Economy –** Achieve a stable, diversified, and well-balanced Territorial economy.
- **Agriculture –** Achieve a higher degree of agricultural self-sufficiency in the U.S. Virgin Islands.
- **Recreation –** Provide opportunity for a wide variety of leisure time activities.
- **Waste –** Achieve a sound system of waste disposal to support basic public health and environmental standards.
- **Energy –** Secure a sound and affordable energy future for the Territory.

In addition to these long-standing vision statements, this Plan weaves two other important considerations into all aspects of the Plan.

- **Climate Change –** Sea level rise, increased storms and storm severity, heat waves, and drought are all the result of climate change. Fortunately, there is better data today than ever on the projected impacts of climate change and the Territory can plan for these conditions in the future. Climate change impacts affect each section of this plan, from where the Territory invests in infrastructure, to where development is allowed, to where open space is maintained to account for the migration of coastlines and other coastal features over time. While there is not a separate climate change section of the Plan, climate change considerations are woven throughout.
- **Social Justice –** Another assumption woven throughout the Plan is ensuring full inclusion of the Territory's residents in the economic, social, and political life of the USVI, regardless of race, ethnicity, age, gender, place of residence, or other characteristic. This means access to economic, social, and political resources as well as inclusion in processes and decision making. It also means investing in efforts that keep locally owned properties and businesses in the hands of local individuals and families.

HOW WE MAKE CHANGE

In this ever-changing world, strategies that make sense today may be outdated two years from now or even next month. The most important thing is that the Territory holds to a common vision and strives to make government initiatives consistent with that vision. Whatever specific strategies are pursued, the USVI will be committed to the following approach:

Set Goals

Before making any investments or starting a new program or policy, clearly define what the desired outcomes are and how to measure success.

Collect Data

Collect the data needed to justify Territory spending, investments, and policies. Make this data clear, consistent, easy to track, and fully accessible to the public.

Be Accountable

Use data to track outcomes of policies and programs to make sure we are achieving our goals. If there are other partners in these programs and investments, actively track their progress as well, and make sure they adhere to any agreements. If programs, policies, and investments are not producing the desired outcomes, the USVI must hold itself and its partners accountable.

Act Equitably

All USVI departments should work to remove barriers and eliminate disparities that limit the ability of some to fulfill their potential. This requires tracking data on race, income, educational attainment, public health, etc. to ensure that our policies, programs, and investments are offering fairness and increasing opportunity for all.

Mind the Future

Actions taken today will have lasting impacts for the future. The USVI will use the latest data on climate change to make sure that infrastructure and buildings are located and designed to be resilient to increased storms, flooding, heat, and more. The USVI will also be mindful of making sustainable investments that will serve residents for generations to come.

Embrace Change

The status quo will not move the Territory forward. The USVI needs to be able to try new things—even if that means efforts sometimes fail. Agencies, residents, and business owners must set expectations in advance, collect the data needed to track success or failure, and hold responsible parties accountable With this approach, the USVI can explore new policies and actions, determine successes and shortcomings, and change course accordingly. There are many "best practices" throughout the country and throughout the Caribbean that can guide this change.

MAKING THE PLAN

Below is a high-level summary of the planning process that built the Plan. More detailed documentation of the planning process, including what was heard from public feedback, is available as part of the Plan's supporting documents.

WHAT WENT INTO MAKING THE PLAN?

The process for pulling together the Comprehensive Land & Water Use Plan lasted approximately 18 months and the approach was dynamic and iterative in nature. Overall, creating an understanding of the issues facing the USVI as a whole and the individual main islands was achieved with the following:

- **Existing Plans –** The USVI has developed an impressive library of high-quality plans over the years. This Plan draws extensively on that work in all phases of the document (i.e., baseline to policy to strategy) and collects many of the best ideas into one place. Many of the strategies in this plan reference or directly pull from several of these existing plans.
- **Discussions and Interviews –** Throughout the process, from beginning to completion, the project team continually conducted interviews and small group discussions with government agencies, civic leaders, Senators, and residents. These discussions were vital to understanding the context and issues on the islands and developing ideas over time with the collective knowledge of these residents.
- **Community Outreach and Engagement –**The project team engaged with community members across the entirety of the project through a variety of means. In some instances, communications were simple and alerted people to upcoming events and interim products. In other instances, more intensive public discussions included large numbers of residents and business owners, providing an opportunity to share and debate ideas.

Once a solid foundation of baseline conditions was developed, the project moved into active community engagement. Important elements of the public outreach and engagement process included:

Sharing the Baseline

The project officially began in October 2022, when the project team started reading and researching existing plans and data sources. This phase of the project lasted several months, establishing important baseline conditions such as population demographics, services, transportation patterns, and other aspects of life in the Territory. This work resulted in the project's Baseline Materials, which were presented at the first round of Town Hall meetings.

Website and E-blasts

The project team developed a website for the Plan in late 2022: www.PlanUSVI.com. This website served as a central repository for data and baseline materials, past plans and projects, information on public meetings and surveys, draft Plan materials for review, and more. The website allowed people to sign up for "e-blasts" – regular e-mail communications announcing upcoming public engagement opportunities, surveys, and draft materials ready for review. Over the course of the project, this list grew to over 700 addresses. In addition to the e-blasts, the team worked through local radio, television, print and online news outlets, hard copy fliers and mailers, and more to reach as many people as possible.

Town Halls

Four sets of Town Hall meetings were hosted on St. Croix, St. John, and St. Thomas from February 2023 to June 2024 (12 total). Total attendance at these meetings exceeded 1,500, although the same people may have attended multiple meetings.

Town Hall and Open House events in St. John (top row); St. Croix (middle row); and St. Thomas (bottom row).

February/March 2023

These Town Halls started with a background presentation on the Comprehensive Land & Water Use Plan, including key data from the Baseline Reports. After the presentation, people were invited to break out into small groups to discuss what things should be ***protected, strengthened,*** or ***transformed*** across the Territory.

July 2023

Based on the feedback from the first round of Town Hall meetings, the project team developed a set a of key issues and policies that would serve as the pillars of the plan. These ranged from issues of governance such as how land and water use decisions are made and how laws are enforced, to specific needs around protecting environmental resources like guts, groundwater, coastlines, and forests. The objective of these Town Halls was to ask the public, "Did we hear you right? Do you agree that these are the key issues and policies that should make up the plan?"

November 2023

This set of Town Halls focused on testing the policies reviewed in July. How could places across the USVI be different under different policies or practices? Two sites were chosen per island, and the project team worked with residents to envision how they could be transformed in the future through new strategies that could be included in the Comprehensive Land & Water Use Plan. Sites on each island included:

St. John	St. Croix	St. Thomas
Coral Bay	Northside Road/ Five Corners	Smith Bay
Susannaberg	Sunny Isle Shopping Center	Turpentine Run (inc. Tutu Park Mall)

June 2024

The final round of Town Hall meetings presented a complete draft of the Plan, including goals, policies, and strategies. Based on the feedback from these meetings, the project team refined the plan and developed the Implementation Program for DPNR.

Small Groups/Interviews

Over the course of the planning process, the project team met with representatives from dozens of GVI agencies, the University of the Virgin Islands, local non-profit organizations, and local elected officials. These meetings were held at the beginning of the planning process to help set the direction, and then again at the midpoint to confirm the team was still on the right path and working toward a plan that everyone can support.

Island Working Groups

Working Groups were established for St. Croix, St. John, and St. Thomas early in the process. A general invitation was sent out through e-blasts and other media, and all interested individuals were welcome to join. For a list of Working Group members, please see the *Acknowledgements* page. The role of the Working Groups was to review Plan deliverables in advance of releasing them publicly, to make sure they were on the right track. Working Group members also provided input on the best ways to reach out to the community and to structure the Town Hall meetings and other engagement efforts.

COMMON THEMES AND SHARED CONCERNS

As noted above, the project team heard a lot from people on a very wide array of topics. While this feedback is captured in more detail in supporting documents, there were several key themes and goals that were common across all three islands and that are important topics in the Plan.

- No more spot zoning
- Eliminate or significantly reform the two-tier permitting system
- More local control over land use decisions
- Capacity/accountability for local government to enforce existing laws
- Protect guts/beach/shoreline access
- Protect groundwater/drinking water
- Provide guidance to address competing water uses
- Diversify the local economy and re-orient tourism to be more beneficial to the local population and the environment
- Make it easier to walk and bike

These issues, and many more, are addressed in the following Comprehensive Land and Water Use Plan, which is organized into four over-arching themes:

MAKING BETTER LAND AND WATER USE DECISIONS

PROTECTING OUR NATURAL RESOURCES

PREPARING FOR A MORE SUSTAINABLE FUTURE

LIVING AND THRIVING TOGETHER

A PLAN FOR THE TERRITORY

This Plan respects and embraces the fact that St. Croix, St. John, and St. Thomas (as well as the cays) all have different needs based on local conditions, culture, and history. However, the Plan also acknowledges that the Territory is, in many important ways, managed as a whole and there are many issues that provide an important backdrop to the Plan and serve to drive policy. Some of the most fundamental baseline issues unique to an island setting that shape many of the policies across the Territory include[1]:

- **Topography –** The variable and diverse topography of the different islands plays a significant role in shaping land and water use policy. Issues related to stormwater flow, slope stabilization, mobility, and public safety are inextricably linked to the USVI's topography.
- **Limited Land –** The small land area of the islands, large swaths of steep terrain, and existing development patterns limit the supply of open, accessible land. The USVI will need to be strategic and resourceful in its approach to developing land in a sustainable and efficient manner, focusing on policies and tools that develop and redevelop the most suitable lands, while steering development away from more hazardous or environmentally sensitive areas.
- **Drainage –** The combination of seasonal rains, steep slopes, and low groundwater reserves creates a unique hydrologic setting in the USVI. Sustained streamflow is nearly non-existent on the three major islands, with stormflow draining through a system of guts that only flow in response to rain events. These channels not only serve as the natural drainage system for the islands, but also provide important cultural and recreational resources. The value of these features as natural infrastructure and public amenity needs to be emphasized in the USVI's development and conservation policy.
- **Limited Water Supply –** The topography and drainage issues discussed, combined with poor soils, create a situation where groundwater provides limited opportunity for drinking or irrigation water supplies. Land and water policies must continue to encourage opportunities and refine policies related to desalination, open storage (ponds), enclosed storage (cisterns), protection of limited aquifer supplies, and other similar measures.
- **Climate Change –** While climate change is a global issue, its impacts are felt more dramatically in island communities like the USVI. Extreme weather events, coastal and inland flooding, drought, and extreme heat are some of the more common impacts experienced by residents in recent years. As these impacts continue to occur, the need to emphasize adaptation in land and water policies becomes more urgent.

With these issues as a backdrop, the following section of the Plan explores a broad range of land and water use issues that are generally shared across the USVI. The section includes goals, policies, and actions that are intended to be implemented Territory-wide. Separate sections for St. Croix, St. John, and St. Thomas follow this Territory-wide section, exploring issues particular to each island and examples of how Territory-wide policies should be applied in each.

1 These issues are explored in greater detail in the Baseline Reports developed as part of the CLWUP process.

MAKING BETTER LAND & WATER USE DECISIONS

BACKGROUND

During the development of the CLWUP, the most frequently discussed topic in all forms of engagement related to how decisions are made regarding land and water use. The interplay between agencies like DPNR, Coastal Zone Management, Coastal Zone Commissions, the Legislature, the Governor's Office, Property and Procurement, Historic District Commissions, the US Army Core of Engineers, and other parties can be very complicated. The current system often suffers from too many layers of permit review and the need for coordination that is either too complicated or under-resourced. In other instances, decisions are being made by the Legislature that would be better suited to a local decision-making body or technical staff within DPNR. This is evident where decisions about rezoning fail to consider impacts to neighborhoods or existing roadways, or where marine projects are not considered in the context of what services or infrastructure are available on land.

MAKING DECISIONS ABOUT LAND AND WATER USE

The Need for Strong Plans

Developing strong plans for land and water use will continue to be critical to the future prosperity of the USVI. Government agencies and civic groups have developed an impressive library of plans that stand strong on their own, but also contribute greatly to the depth of this Plan and create a broader, unified policy network. Examples include, but are not limited to:

- *Vision 2040: Our Community. Our Economy. Our Future. A Vision of Prosperity for All* (2021) USVI Economic Development Authority
- *Virgin Islands Agricultural Plan* (2021) VI Agricultural Plan Task Force
- *Historic Preservation for the USVI: Preserving our Past for Our Future, 2016-2021* (2016) VI State Historic Preservation Office
- *2040 USVI Comprehensive Transportation Master Plan* (2014) USVI Department of Public Works
- *U.S. Virgin Islands Coral Reef Restoration Plan* (2023). Virgin Islands Restoration of Coral Squad
- *U.S. Virgin Island Coastal Vulnerability Index* (2022). Caribbean Green Technology Center Technical Report, University of the Virgin Islands, St. Thomas, U.S. Virgin Islands
- *USVI Hazard Mitigation Update* (2019 and ongoing updates)
- *Plan Cruz Bay* (2024). Love City Strong
- *Charlotte Amalie Blueprint* (2011). Government of the USVI
- Revitalization plans developed for both Christiansted (2018) and Frederiksted (2022), Urban Land Institute
- Over a dozen watershed management plans (various authors)
- **More than 30 additional plans related to land and water use**

In addition to those plans already completed, other important documents were being developed at this time this Plan was drafted and DPNR was able to coordinate those efforts. These plans included:

- Hazard Mitigation and Resilience Plan
- Watershed Management Plans
- Bay Assessments
- Updated Mooring Plan

These planning efforts provide the foundation for regulation and enforcement, and also allow the USVI to leverage funding for ongoing work and to be strategic with limited resources.

Government Capacity to Manage Land and Water Use

The government agencies in charge of all key functions related to land and water use are under-resourced. Allocated funding, staff numbers and capacity, vehicles/boats, equipment, and tech resources are not adequate to meet the demands placed on all departments day-to-day. Barriers to obtaining resources and achieving adequate staff levels are complex and systemic in nature. General revenue shortages, a lack of affordable housing, a misalignment of wages with cost of living, talent drain, and the lack of a pipeline for many skillsets—these factors and others make retention and recruitment very challenging. From a staffing perspective in particular, the government of the USVI will need to take aggressive and creative approaches to attracting people into careers that support a strong, long-term land and water use program. Agencies must also engage in longer-term strategic planning to align staffing projections with anticipated projects and day-to-day workload.

The lack of government capacity has highlighted an important truth in the USVI: partnerships between organizations and sectors in the USVI are often essential to securing funding, scoping projects, managing work, and maintaining public assets. Everyday life in the USVI presents a complex set of needs and the list of services and projects necessary for the Territory to thrive is long. Without question, the greatest limitation to implementation is the "human resource," there are not enough people in the Territory in any individual sector (e.g., public, private, or civic) to complete the work that needs to be done acting independently. The partnerships required in the USVI between these groups need to go beyond what is typically found on the mainland. Flexibility in program administration, more fluid sharing of staff and resources, the ability to empower non-government groups to perform duties traditionally set aside for the government, and mechanisms for communication that weave these groups closer together in everyday operations—these are the characteristics of some partnerships that have already occurred and need to become the norm.

Shifting to Local Decision-Making

The most impactful land and water use decisions in the USVI are made by the 15-person Legislature for the Territory. These decisions include, but are not limited to:

- Establishment and amending the different zones for land use regulation.
- Reviewing applications for and making decisions for land use variance requests.

In other jurisdictions across the U.S., chief elected officials (in municipalities, a Mayor, a City Council, Select Board) do not make these day-to day decisions on zoning. One of the primary reasons is a very practical consideration of workload. Review of these types of applications can be very frequent and very time consuming depending on the complexity of the projects. A second consideration is the political tangle that can occur between competing interests, which can make it difficult for elected officials to narrowly focus on the issues related to a particular application.

While there is no singular model used to address this issue, many jurisdictions recognize these challenges and limit the places where their chief elected officials get involved with land use regulation. These jurisdictions often use locally based boards or commissions to oversee land use regulation, similar to the USVI's Coastal Zone Committee model. While no system is perfect or completely insulated from political influence, advantages to using local decision making include:

- Local board members generally live in their community, creating both greater connection and accountability.
- Local board members tend to have greater first-hand knowledge of physical conditions and local history related to different sites and neighborhoods.
- Local board members tend to be more available for meetings and site visits that occur outside the normal proceedings of permit review.
- Local Board members can be selected with consideration for both their knowledge of local community needs and their professional qualifications.

Previous work related to zoning reform (Rutgers, 2014), which was not adopted, included a proposed re-organization for land use decisions that would modestly increase local representation through the establishment of a Territorial Planning Commission that includes at least one resident from each island as a member. The planning team for the Plan developed further guidance in the Implementation Programs for DPNR detailing different models for consideration that would increase local decision making authority.

Powerful Data

Government agencies and non-government groups across the Territory are developing and gathering data on an incredibly diverse set of topics, many of which can help inform decisions about land and water use. Some key findings during the Plan process include:

- **Spatial Data** – Geographic Information Systems (GIS) display data spatially. Many people are familiar with examples like zoning maps or watershed maps, which are usually generated in a GIS platform. People who use these software platforms can connect data to features on the screen, which allows data to be visualized in a spatial manner. Spatial data systems have evolved to be extremely sophisticated but also more user friendly, with many opportunities to create web-based maps that anyone with an Internet connection can access. The USVI government does provide some access to spatial data, but there is tremendous untapped potential to use these maps for public education, permit tracking, land and water use planning, and transparency.
- **Data Consistency** – Many government departments in the USVI maintain data as part of everyday operations. Information related to permits, violations, fees, notices of hearings, and other items are maintained with different recording/database mechanisms. As with many agencies across the U.S., the USVI suffers from inconsistent data maintenance practices. This can be caused by many factors, but strategies to address the issue can include: installation and training on data protocols, adding staff capacity for data entry and organization, and providing and maintaining infrastructure (e.g., software) that facilitates user-friendly and consistent data entry.
- **Data Coordination** – In addition to data maintenance practices within *individual* departments, coordination *across* Departments and Divisions will be needed to realize the full value of the data being collected. With 11 Divisions in DPNR, for example, the potential to share data on a unified, public platform (including a spatial component) has tremendous value. Data related to historic and cultural resources, infrastructure service areas, watersheds, habitat, regulated areas, zoning, predicted hazard impacts, waste convenience centers, and many other features could be displayed together in a manner that helps property owners, regulators, and residents better understand how decisions are made. If all these things are catalogued separately, it is difficult to ensure that data is gathered, organized, and made accessible to the public consistently. A Data Division within DPNR or within the Government of the USVI generally can play this important role. Such a Division would not necessarily need a large staff. Even a single person dedicated to data coordination could make a big difference.

DATA SPOTLIGHTS

Many organizations outside the core USVI government agencies have important data that should be used by government agencies to inform their operations. Just a few examples include:

The University of the Virgin Islands (UVI)

UVI has been a tremendous partner in the development and maintenance of data critical to the future sustainability of the USVI. As an example, UVI led the update for the most recent *Hazard Mitigation and Resilience Plan* (ongoing) and also played a leading role in the development of the *Coastal Vulnerability Index* (2023), both of which include spatial data that will be critical to considering potential impacts to coastal areas related to erosion and inundation. The university also administered the Virgin Islands Community Survey (VICS) through their Eastern Caribbean Center Program. These basic census data are critical to understanding many baseline conditions across the USVI related to demographics and housing. Unfortunately, VICS has not been active since 2018.

Southeast Conservation Blueprint (Blueprint)

The Blueprint is a product of the Southeast Conservation Adaptation Strategy (SECAS), an initiative that covers the southeastern U.S. and the Caribbean. SECAS coordinates government agencies, non-profit groups, private landowners and businesses, tribes, partnerships, and universities to, among other things, develop spatial data that can help prioritize conservation and protection of land valuable to ecological health and resilience. The Blueprint—described as a "living, spatial plan"—creates a series of indicators through the aggregation of different spatial layers. At the simplest level, the Blueprint can display potential conservation lands at different priority levels (e.g., highest, high, medium, etc.) At a more complex level, staff members continue to develop a series of spatial indicator maps for different areas that examine more specific issues like urban park characteristics, bird and fish habitat, and coastal resiliency.

The St. Croix Foundation

The St. Croix Foundation became the USVI's steward for KIDS COUNT data in 2020. While this initiative represents one of many projects within the Foundation, it stands as a shining example of a powerful data initiative that can help shape policies around land and water use in the USVI. Viewing these issues through the lens of child well-being will create more inclusive policies that create healthier outcomes for everyone. In addition to the actual data gathered by the Foundation, the experience of gathering those data is something that can be instructive for the USVI as a whole. With a mandate of developing data sets that can be effective for shaping policy, the Foundation has learned important lessons about data development and maintenance across multiple agencies for the purposes of solving complex public policy issues. In that regard, the Foundation is uniquely positioned to help establish procedures and standards for data stewardship that will facilitate long-term sharing and building insights.

The Virgin Islands Good Food Coalition[1]

The Good Food Coalition is a place-based nonprofit dedicated to building a thriving and just food economy that supports USVI farmers and producers, and ensures healthy good food is accessible to every resident in the territory. The agency's work focuses on improving food security, food sovereignty, and agricultural sustainability through market creation, services for farmers, education, and advocacy. The "FoodFind VI" project will include geo-mapping all farms and food-related businesses in the territory, integrating these spatial data with USVI emergency and disaster preparedness agencies.

1 Text adapted from www.globalgiving.org/donate/61161/virgin-islands-good-food-coalition-inc/

REGULATORY REFORM

Future Land and Water Use Maps

The practice of developing comprehensive plans often includes an accompanying Future Land Use Map that provides a generalized visualization of what type of development should be located in different areas. (For the USVI, this would be a Future Land and Water Use Map.) These maps are not meant to be as specific as a Zoning Map, nor do they have the same regulatory authority. The Future Land and Water Use Map is meant to provide a framework for regulators, residents, and developers and helps to inform decisions related to rezoning as time goes by. This Plan (in its 2024 iteration) does not include a set of Future Land and Water Use maps due to a complexity of issues including ownership and the need to clarify the relationship between jurisdictions and, in some cases, probate issues. Further, ongoing assessment of bays demonstrated a need to continue that work in advance of establishing use maps related to marine resources. The engagement process for this plan revealed a need to have a more intensive public discussion around the content of these maps before attempting to develop any drafts.

The Two-Tier Permitting System

The Coastal Zone Management Program currently reviews applications for development in accordance with a two-tier program. A line was drawn when the CZM Program was established that separates coastal projects from inland projects, with different permit procedures and standards applying to these two areas. This system has proven to be insufficient from the perspectives of resource protection and resiliency as it creates an artificial divide between upland development and coastal areas, when the impacts of upland development run downstream to sensitive coastal areas. Coastal features that protect the island from storm surge, important infrastructure elements, evacuation routes, and other features can be severely compromised by development activity upstream on steep slopes and in flood zones. Further, projects with significant potential impacts in the upland zone (Tier 2) do not receive the same level of scrutiny as Tier 1. A reformed permitting system should operate in a way that acknowledges the watershed dynamics that determine the extent of flooding across the Territory. It will also provide greater protections and a more consistent review process for large-scale projects in the upland areas. This is a critical step in improving regulation to foster environmental protection and resiliency.

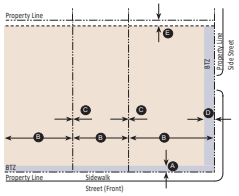
Best Practices in Zoning

The USVI Zoning Code [Title 29] is outdated and requires a comprehensive overhaul. That effort will require several years to complete in order to install the regulatory systems called for in this Plan. However, while a larger reform effort is being pursued, interim amendments can be adopted to help address many needs identified in this plan. Regulatory reform measures are identified throughout the plan addressing issues related to housing, economic development, climate resilience, food systems, walkable communities, and other broad goals. Some of the zoning approaches promoted by the Plan include:

- **Form-based codes** – Form-based codes use zoning to implement a specific vision for urban form; for example, shaping appropriate development in historic areas, or to create new walkable neighborhoods. These codes are less prescriptive when it comes to actual uses (e.g., office versus restaurant, versus residential), but are more prescriptive about the form of the building and how it contributes to creating a better experience for people on the street, achieving more predictable results in the physical form of new development. Many people in the USVI are aware of form-based codes because of the work previously done for the Town's Blueprint for Charlotte Amalie (2011). This intensive area study used a charrette format in its engagement of the public to build a vision for this historic area in St. Thomas. Implementation measures in the plan included the successful redesign of Veteran's Drive as a place for improved pedestrian, cyclist and vehicle movement, and the creation of a form-based code to govern development in the historic area.

The code is drafted but not yet adopted. The goal is to have this adopted as soon as possible; potentially additional form-based districts could be created, tailored to meet the unique conditions of other mixed-use areas where walkability and vibrant neighborhoods are the highest priorities.

1. Form



Key

Property Line
Build-to-Zone (BTZ)
Potential Building Area (in addition to Build to Zone)

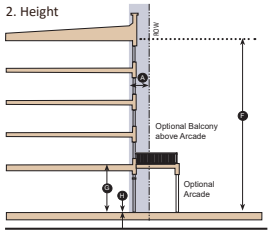
Building Placement		
Front Build-to-Zone	0' minimum to 6' maximum	A
Frontage Occupancy	80% minimum	B
Side Setback (mid-block)	0' minimum	C
Side Build-to-Zone (corner)	0' minimum to 10' maximum	D
Rear Setback (lot or Alley)	5' minimum	E

NOTES:
- "Front" and "Side" orientation shall be determined by the Street Hierarchy in the Street Design Standards (Part 6).

Lot and Block Standards	
Maximum Block Perimeter	1800 linear feet maximum
Lot Width	18' minimum, 120' maximum
Lot Depth	no minimum, 180' maximum
Lot Coverage (%)	no maximum

NOTES:
- Blocks shall be configured as shown in the Regulating Plan. Modification to Blocks may be approved by the FBCA/FBCS if determined to be consistent with the intent of this article and the above lot and Block standards.
- Blocks may be defined by streets or pedestrian walkways.

2. Height



Key

Build-to-Zone (BTZ)
Building

Building Heights		
Building Height	2 Stories minimum 4 Stories maximum	F

SECTION 213-586
FACADE COMPOSITION

A. Centerlines

1. Facades shall feature alternating structural centerlines and fenestration centerlines.
2. These centerlines shall extend from the top of a mass to the bottom of a mass.
3. Multiple windows and/or doors may be grouped symmetrically around a single fenestration centerline.
4. The spacing of centerlines may be identical across a façade, or may vary.

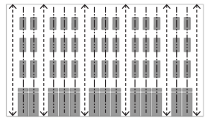


Figure 5-5: Stuctural and fenestration centerlines

B. Cornices

1. The top of each primary and secondary mass shall be emphasized with a projecting cornice. This cornice shall feature a deeper projection, and therefore stronger shadow line, than any other Expression Line on a façade.
2. A cornice may be used to visually support a pitched roof.
3. A wall plane may extend above a cornice to form a parapet.

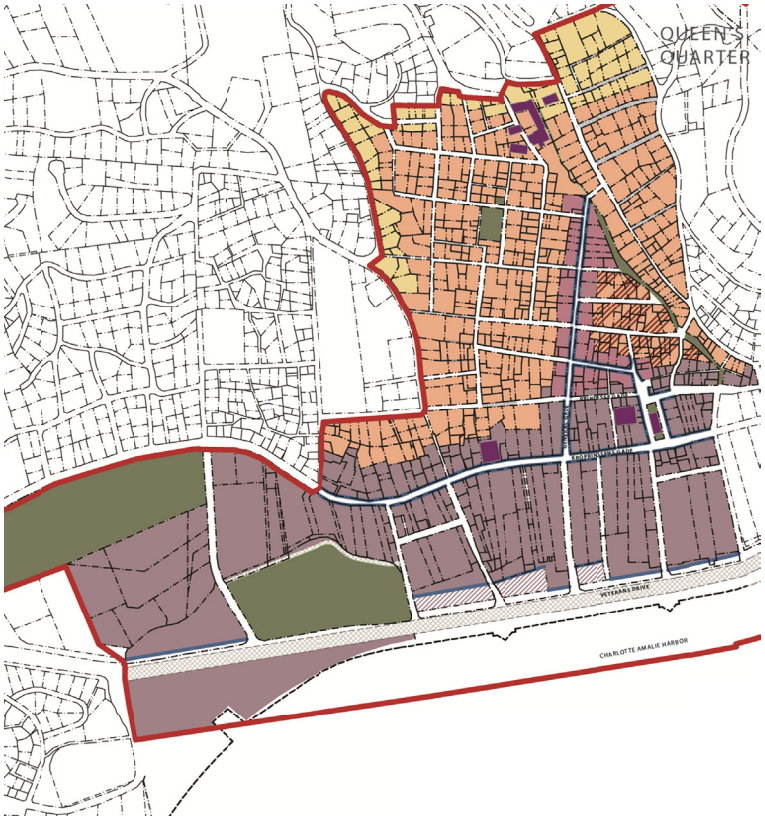
Figure 5-6: A cornice at the top of the mass

C. Expression Lines

1. Expression Lines are formed by horizontal moldings which project minor shadow lines.
2. Facades may feature a change of colors, materials or textures at an Expression Line.
3. A building mass may feature one of the following subdivisions by Expression Lines into horizontal layers:
   - Single layer
   - Two layers
   - Three layers
4. An Expression Line shall always be used at the top of shopfronts. This Expression Line may incorporate a band for signage.

Figure 5-7: Facades divided into 1, 2, and 3 horizontal layers

Figure 5-8: An Expression Line at the top of shopfronts



Form-Based Codes are more prescriptive about building placement and design, and more flexible about use, to shape a specific mixed-use urban form. Building Form Standards describe the required relationships between buildings and public spaces, incorporating build-to zones, building height, and parking location. Architectural Standards specify design elements and configurations (sample pages left).

A Regulating Map links regulations to specific parcels (example above from the Charlotte Amalie District Code).

- **Mixed and flexible use** – The current code relies heavily on separating the location of land uses by broad categories. For example, residential areas and commercial areas are often clearly separated with little opportunity to blend these uses or install "top-of-the-shop" housing where it may be appropriate. Similarly, heavier commercial uses and lighter industrial uses are now often combined to diversify these areas and create opportunities to blend fabrication, storage, and retail into more tightly developed areas. As a final example, while some lands should be maintained exclusively for agricultural use, there are tremendous opportunities to blend agriculture into residential, commercial, and industrial areas depending on the scale of these food-based activities. The current code should be reformed to capture these opportunities for mixing uses where appropriate.
- **Overlay Districts** – The use of overlay districts allows zoning language to account for the special needs or opportunities associated with things like existing land cover (e.g., wetlands, mature forest, sensitive habitat), hazardous areas (e.g., steep slopes), cultural resources (e.g., scenic corridors, historic districts), or unique development opportunities (e.g., planned mixed-use communities). Regardless of the application, overlay districts have diverse applications and can provide a more precise way to protect natural/cultural resources, or a more flexible way to unlock development potential.
- **Performance standards** – As discussed above, the current code will benefit from more flexibility in allowable uses and how they might be mixed in appropriate areas. Importantly, where this does occur, or where sensitive resources may be impacted, the code must have clear requirements for outcomes that are healthy for people and the environment. This Plan identifies many situations where performance standards will provide greater protection for neighborhoods and natural resources while also providing a clear path to approval for both developers and regulators.

Examples of mixed and flexible use buildings:
Top: Leatherback Brewing combines a light industrial brewery and restaurant;
Bottom: A "top-of-the-shop" residential unit with commercial laundry and tire sales.

Managing and Regulating Coastal Waters

USVI's bays are some of its most treasured resources. These marine areas are home to critical resources like sea grass beds, coral reefs, and mangrove stands. Marine species depend on many of these areas for habitat, food, and breeding. Protecting these resources and the long-term health of the USVI's bays will be an ongoing challenge. These areas experience a diverse range of demands (see inset) and the government's limited capacity to monitor activity and enforce regulations make them vulnerable to misuse and/or degradation.

To date, the regulation of bay areas is a complex system of jurisdiction with mooring and anchoring governed in part by the Rules and Regulations for Mooring and Long Term Anchoring in the USVI. Government facilities are largely regulated by the VI Port Authority and Coastal Zone Management, which reviews applications for water-dependent uses like marinas or similar private facilities. For submerged areas that may be developed with docks, piers, cables, moorings, etc., jurisdiction can be as simple as a Coastal Zone Committee, or as complex as including the USVI Legislature and the Army Corps of Engineers. Other layers of restrictions come in the form of Areas of Particular Concern (APCs, established through the Coastal Zone Program) and other Marine Protected Areas, which can include National Monuments/ Parks, Territory Marine Parks, Marine Sanctuaries and Wildlife Reserves, and Fishery Closure Areas or Marine Conservation Districts. Many of these areas set the rules for fishing in the USVI, ranging from "no take" areas to seasonal limitations to open recreational waters. Despite the number of agencies that establish restrictions or may be involved in regulating a particular proposal, especially with regard to developing on submerged lands, it is often unclear what may be allowable from one bay to another and what the criteria would be for approval.

Top: Barge entering channel between two coral reefs, Christiansted Harbour.

Bottom: Air traffic in shared bay, Christiansted Harbour.

THE DEMANDS PLACED ON USVI BAYS

Depending on the characteristics and location of different bays, potential uses and activities include:

- Swimming
- Fishing and harvesting
- Snorkeling and diving
- Small and large craft passage and mooring
- Temporary anchoring
- Shipping
- Charter and ferry
- Others

Top: Cane Bay swimming/snorkeling/diving/boating/coral nursery.
Bottom: Moored boats in Christiansted Harbour.

Top: Shipping port and public dock in Gallows Bay.
Bottom: Dock and moored boats in Gallows Bay.

GOALS, POLICIES & STRATEGIES

GOAL 1: LAND AND WATER USE DECISIONS WILL BE BASED ON SOUND PLANNING.

Policy: Strengthen the capacity of government agencies to create strategic, actionable plans.

Strategy: Create, fund, and execute a staffing plan for government agencies that will provide the level of expertise and workforce needed to achieve this Plan's vision. Consider options such as:

- Create hybrid work opportunities including remote positions to provide services that do not require a full-time presence.
- Offer term-limited individual assignments/contract jobs to achieve specific goals/objectives.
- Create a Caribbean-based specialized work-sharing and relevant trade capacity building program through vocational schools and the University of the Virgin Islands.

Policy: Create a framework for implementing, maintaining, and updating the Plan that stays in place from one administration to the next.

Strategy: Institute a mandatory process that engages the community to review and evaluate the Plan annually and update it at 5- to 10-year intervals. Place this in the DPNR Implementation Program.

Strategy: Reform the procedures for zoning changes and variances to ensure decisions are consistent with the Plan.

GOAL 2: GOVERNMENT AGENCIES WILL HAVE THE CAPACITY TO PERFORM ALL DUTIES RELATED TO LAND AND WATER USE, INCLUDING ENFORCING LAWS EFFECTIVELY, CONSISTENTLY, AND TRANSPARENTLY.

Policy: Build capacity so Divisions/Departments can operate effectively.

Strategy: Adopt government budgets and procedures that ensure wages are suitable to skills and capacities as well as living costs on the different islands.

Strategy: Provide funding for training, facilities, and equipment needed to have adequate enforcement capacity on each of the three major islands for all regulatory Divisions. Prioritize establishing a strong presence for DPNR and all enforcement agencies on each of the three major islands. This would include accessible office space, permanent staff, boats and vehicles, equipment, and storage facilities.

Strategy: Create continuous education and certification plan for all enforcement staff, with an emphasis on functions related to interfacing with the public, educating, reviewing, and processing permits, and compliance/enforcement.

Strategy: Create and sustain a grant writer/administrator position that can support all the divisions within DPNR in identifying grant opportunities, coordinating applications, and taking care of grants management and reporting.

Strategy: Develop and adopt transparency and customer service protocols, process timelines, and resources, to better serve the public. For example:

- Regularly review and update Territory web pages to ensure the most needed information is prominently displayed.
- Map out the permitting process and opportunities for the public to comment on proposals. Train staff to guide people through these processes.
- Provide resources and establish community outreach protocols to proactively reach out to populations that do not tend to participate in the process to make it welcoming and transparent for everyone.
- Dedicate more time for existing staff to work with the Territory's public communications staff on public education and information campaigns related to key issues in this Plan.

Policy: Ensure fees and violations are commensurate with current economic conditions, the complexity of projects, and the severity of violations.

Strategy: Design a permit fee structure that supports the administrative infrastructure to manage, enforce, and revise policies to bring lasting change. Provide resources for departments to periodically review and amend fees.

Strategy: Revise the penalty structure associated with violations to ensure penalties are fair, but also severe enough to provide incentive for compliance.

Strategy: Implement an administrative penalty process that keeps violation processing within regulatory agencies and limits court proceedings to criminal prosecution.

GOAL 3: THE USVI WILL HAVE AN OPEN, TRANSPARENT, AND COORDINATED REGULATORY PROCESS THAT ALLOWS FOR MORE EFFECTIVE LOCAL INPUT/ REPRESENTATION.

Policy: Adopt a system of regulatory review and decision-making that operates locally on each of the major islands, transferring many of the current land and water use responsibilities of the Legislature to local authority.

Strategy: Establish local planning and/or zoning boards (or a similar structure) for St. Croix, St. John, and St. Thomas, empowered to review (approve or deny) development applications, review (approve or deny) applications for zone changes or variances, and other responsibilities related to permitting consistent with the Plan.

Strategy: Ensure equitable representation on local boards by residents of the three main islands and provide training and education to members that foster objective and streamlined permit application review.

Strategy: Establish a consistent process and clear criteria for approving zoning amendments and variances in order to hold local boards accountable by developing a system for transparency, consistency, and predictability in Plan implementation and zoning enforcement.

Strategy: Maintain a clear process of appeals, especially where the structure of permit review may be shifted to a local authority.

Strategy: Expand and/or better advertise the avenues for residents to engage directly in the process. Develop a public education campaign to inform the public on how and when to participate in public hearings, how to report on non-compliance or violations, etc.

GOAL 4: PERFORM A COMPREHENSIVE, MULTI-YEAR REFORM OF LAND REGULATIONS RELATED TO LAND AND WATER USE.

Policy: Ensure that existing USVI law is consistent with the goals and policies of this Plan.

Strategy: Conduct an analysis of existing USVI law to see where the law already supports or furthers the proposed strategies in this Plan and where there may be conflicts.

Policy: Create a more consistent and complementary permitting approach for land development and marine area use from ridge to reef that takes into account the ecological connectivity across each island, minimizes environmental impacts, and improves environmental conditions whenever possible.

Strategy: Eliminate or significantly reform the two-tier permitting system and adopt a system that allows DPNR to review development based on environmental performance standards regardless of which Tier applies.

Strategy: Review regulatory reform proposals to ensure there are no undue burdens on projects that—by virtue of location, size, or description—will have minimal environmental or neighborhood impact or that are proactively designed to improve environmental conditions.

Policy: Reform the Zoning Code to meet the goals of the Plan and provide a durable yet flexible place-based framework that minimizes the need for variances and zoning amendments.

Strategy: Develop a Future Land and Water Use Map that will help guide decisions related to rezoning and the application of contemporary regulatory tools. The map will generally identify areas suitable for different types of development and uses, areas most in need of conservation, and areas that should be targeted for restoration and regeneration, both on land and water.

Strategy: Develop criteria and/or performance outcomes, as objective as possible, that must be considered when reviewing applications for variances and zone changes.

A NOTE ON REGULATORY REFORM

One of the Plan's primary roles is to provide a framework for regulatory reform. This section addresses some important overarching needs related to administration, process, and philosophical approach. Calls for regulatory reform that addresses specific issues appear in other sections of this plan. Mixed use development, housing affordability, historic preservation, wetland and flood zone protection, beach protection, roadway standards, standards for steep slopes, and more—these are addressed in subsequent sections.

Strategy: Reform existing processes to streamline complex permitting situations. For example,

- Remove loopholes in the regulations that allow applicants to segment projects over time in order to have development reviewed at a lower level scrutiny and leverage prior approvals for future approvals.
- Strengthen the review of marina applications to ensure a coordinated review of the land side and water side elements across multiple agencies.
- Projects that straddle more than one zoning district or permit tier should have clear guidance on which standards apply.
- Identify where permits for subdivision, zoning, earth change, and other jurisdictions can be consolidated.

GOAL 5: ESTABLISH A STATE-OF-THE-ART DATA SYSTEM TO SUPPORT DECISION-MAKING AND COMMUNICATION REGARDING LAND AND WATER USE.

Policy: Provide resources for consistent and detailed data collection on land development activities.

Strategy: Add a Data Division to DPNR that will oversee the development, maintenance, and sharing of data in an accessible and transparent manner across all government departments.

Strategy: Establish a publicly accessible Territory-wide GIS mapping system and regularly update data layers for zoning, natural resources, historic resources, infrastructure, and other important key data with local and federal entities, so users can compare layers for broader understanding of the trends and dynamics that exist in any given area.

Strategy: Finalize the implementation of the Territory's e-permitting system, making public data more easily available online.

Strategy: Expand or supplement the Territory's e-permitting system to provide easily accessed information on enforcement actions.

Policy: Invest in data development and collection related to cultural and historical resources.

Strategy: Digitize and catalogue historical documentation including, but not limited to, oral histories, photographs, maps, and hard copy primary sources.

Strategy: Support UVI and civic institutions as they actively engage in the development of new data. Integrate these data into shared platforms as they become available. Support can include redundant data storage, staff support, project collaboration, and grant partnerships.

Strategy: Digitize and catalogue cultural documentations including, but not limited to, diverse ethnicities, values, heritage, traditions, customs, hair coiffures, proverbs, dance, music, fashion, visual arts, crafts, language, culinary arts, festivals, and primary sources.

PROTECTING OUR NATURAL RESOURCES

BACKGROUND

The USVI's natural resources are central to cultural identity, public health, ecological systems, and economic well-being. Forests, water resources, coastal areas, floodplains, wetlands, shorelines, and marine habitats are part of larger ecosystems connected by water and natural processes that are vulnerable to impacts from development. Environmental degradation negatively impacts human wellbeing and affects the ability of natural resources to support biodiversity, provide habitats where native species can thrive, and provide important hazard mitigation benefits, such as cooling and storm protection. These losses affect the USVI's overall resilience to climate change, as well as the quality of coral reefs and fish stocks. Maintaining and regenerating natural resources is also a major contributor to the economy through tourism, in particular the shorelines and coastal areas. The actual monetary value of the services provided by the USVI's natural resources has been examined only recently (see inset), and these early estimates provide just a glimpse into the burden that could be placed on future generations if our current policies fail to provide adequate protection. What is more, certain impacts of climate change related to sea-level rise, more intense storms, and increased heat and drought will have negative impacts on the USVI's natural resources, regardless of the Territory's policies. This makes it doubly important to control the threats we are able to.

Land and water use policies should focus on conserving and restoring the Territory's most critical resources, considering the cumulative impacts of both existing and new development and water uses. Where development or water use is appropriate, policies should focus on reducing, managing, and mitigating negative impacts and enhancing positive impacts through the most up-to date best practices and enforcement. Steps should be taken to apply these best practices to existing development and water uses.

CALCULATING THE VALUE OF OUR NATURAL RESOURCES

Read a more detailed discussion of the monetary value of natural resources in *Ecological Health and Economic Viability*, Pg 67

BUILDING A FUTURE OF RESOURCE PROTECTION

Using our Watersheds as a Framework

The importance of watershed health in island environments cannot be understated. The movement of water across the land—recharging aquifers, nourishing vegetation, flowing into streams and guts, and eventually reaching the ocean—is the driving force behind the health of ecosystems across the USVI. People experience watershed dynamics on a day-to-day basis in their ability to capture rainwater, manage flooding, pump wells, feed crops, and enjoy the myriad health benefits of clean water and healthy forests. Where this system of water flow is impacted by development and diversion, a watershed can become impaired and unhealthy. Water reserves can disappear, water quality can become unsuitable, ecosystems can vanish, and quality of life suffers as a result. If managed poorly, unhealthy watersheds can produce toxic water conditions, landslides, or extreme flood events that present serious threats to health and safety.

The USVI has a documented history of watershed planning that is only getting stronger. Civic groups like the Coral Bay Community Council (St. John), Virgin Islands Conservation Society (Territory-wide, based on St. Thomas), St. Croix Environmental Association (St. Croix), and Island Green Building Association (Territory-wide, based on St. Thomas) have long understood the importance of a healthy watershed to everyday quality of life and have examined issues related to land use, uses in the bay, wastewater disposal, construction practices, and more. Many individual watershed plans have also been developed across each of the major islands with individual government efforts and have shaped many of the policies in this Plan. Lastly, DPNR continues its long-term watershed planning efforts with a recent study of eight watersheds across the USVI, bringing the total number of watershed

management plans in the Territory to over two dozen[1]. This work from DPNR not only provides important guidance for the featured watersheds, but a template that can be continually improved and eventually applied to every watershed.

Strengthen our Existing Protection Network

The USVI benefits from many officially established areas where natural resources are protected (see inset). Each of these areas has specific needs and conditions, as well as varied levels of legal protections, several of which are documented in management plans. While many of these areas are well studied, conditions related to climate, marine stressors (e.g., shipping), invasive species, natural hazards, and others continue to change over time. It will be critical to continue monitoring the health of these resource areas and adjusting management to meet new or growing challenges as they emerge.

1 A comprehensive list of Watershed Management Plans is provided in the Implementation Program, a supporting document to this CLWUP.

DESIGNATED AREAS FOR PROTECTION

- Federal Lands
- Territorial Parks
- Conservation Lands
- Areas of Particular Concern
- Marine Reserves
- Wildlife Sanctuaries
- Marine Park

A recurring theme in community discussions related to the CLWUP was limited land and water supply. These limitations are experienced differently across the major islands, but residents everywhere shared an underlying awareness of these limitations. While many discussions of limited land and water supply were in the context of new development, many others raised the issue of land and water conservation. Strategic protection of land and water areas is deeply entrenched in the USVI through a network of government programs and civic group initiatives. The role of planning and implementation for wildlife habitat protection is a driving force in these success stories. Continued monitoring and management of established areas will be critical to the preservation of ecological diversity, which also supports watershed health, public health, and a brand of tourism potentially more compatible with long-term, sustainable economic development.

COMP PLAN SPOTLIGHT: USING THE WILDLIFE ACTION PLAN TO INFORM DECISION MAKING

The USVI Wildlife Action Plan is regularly updated as part of the nationwide State Wildlife Action Plan Grant Program. At the time this CLWUP was drafted, the most recent version of the USVI Wildlife Action Plan was completed in 2018. This two-volume document addresses the mandatory components of a Wildlife Action Plan and positions the USVI for considerable grant opportunities related to achieving the wildlife protection goals in the document. With regard to land and water use planning, the document provides excellent summaries of important habitat areas with the most current mapping available. (As discussed elsewhere in the CLWUP, collecting current spatial data can be very challenging, making the work for this plan highly valuable in that regard.) Summaries of habitats in the 2018 Wildlife Action Plan include:

Terrestrial Communities	Wetlands	Marine Environments
Forests	Guts	Mangroves
Shrublands and Grasslands	Freshwater Ponds	Seagrass Beds
Beaches and Rocky Shorelines	Salt Ponds and Salt Flats	Coral Reefs

Moving into implementation of this CLWUP, mapping for future land and water uses should include careful consideration of these different habitats and the value of protecting them with conservation or low impact development techniques.

Integrating Protection with Development Policy and Permitting

While many special places in the USVI are protected because of their tremendous natural resources, there are many more unprotected areas and features that deserve consideration. One of the more important ways to protect these resources is through development regulations. Some important site-specific natural resources that can be protected include fruit bearing and other heritage trees, steep slopes, agricultural soils, ridge lines, guts, wetlands, mangrove stands, coral reefs, seagrass, sandy beaches and dunes, and others. The ability to protect these resources through the development review process is a careful balance that must weigh the cost of construction, a property owner's financial interest, and the greater public good realized through resource protection. It is important to acknowledge the USVI has many development challenges unique to Caribbean environments including constraints related to terrain, drainage, and exorbitant construction costs. Further, many local developers and contractors do not have the knowledge or resources to design and execute more complex site development strategies. Adopting mainland practices without carefully considering unintended consequences and developer capacity could create more problems than it solves. Development requirements need to be tailored to the USVI to be successful.

Sensitive Resources

Top: Endangered plant Agave eggersiana, commonly known as Egger's century plant (left); steep slope (right)

Bottom: Wetland (left); Threatened sea turtle (right)

The USVI Zoning and Subdivision Code (as well as other regulations) already contain some important performance standards, but continued on-the-ground experience as well as important studies point to the need for updating many of the standards in place and adding others. Performance standards related to resource protection that should be adopted and continually updated include, but are not limited to:

- **Construction Practices** – Sensitive natural resources are often most vulnerable to damage during the construction process. This includes resources located on a particular construction site as well as resources downhill or downstream. Erosion and sediment control standards, for example, are tremendously important in these situations, ensuring soil and dust are not washed away into wetlands, guts, or neighboring property.
- **Stormwater Management –** While performance standards for construction practices are critical in that phase of development, once a development is completed, changes in the landscape—including the addition of driveways, rooftops, and parking areas—will create potentially large amounts of stormwater runoff for decades to come. Not only can this runoff create flooding conditions downhill, but the water also carries pollution that, if not treated, can cause damage to a watershed's ecology.
- **Landscape Design** – Considerations for landscape design are diverse and capture a range of opportunities for resource protection. First, the most basic level is attempting to protect sensitive landscapes, plants, and trees that already exist. Second, careful selection of new plants can ensure resilient landscapes with native or non-invasive species that require little care to thrive. Fruit bearing plants and trees can provide a great resource for individual properties or neighborhoods. Lastly, landscapes can be integrated into stormwater management strategies, slowing down runoff and filtering pollutants that would otherwise travel to guts, wetlands, and coastal waters.

Top: Construction practices in sensitive areas

Bottom: Stormwater management design

Top: Landscape design capturing runoff from driveway
Bottom: Raingarden captures stormwater runoff

Top: Using best practices to protect sensitive areas during construction
Bottom: Shoreline habitat protection area

- **Buffers to Wetlands, Guts, and Floodways** – An important consideration for resource protection is buffering water resources from development. A buffer of undeveloped, naturally vegetated land between a parking area and a wetland, for example, will help to protect that wetland from sediment and pollutants that collect in the parking area over time and will also help to maintain temperatures appropriate to the wetland's ecology. While many buffer regulations in other jurisdictions are as wide as 100-200 feet, even small buffers between wetlands, gut, and floodways and adjacent development can help mitigate impacts. In areas where development is already close to these resources (sometimes already in flood zones), performance standards can lead to improvements over time that are beneficial both to the resource and the property owner.
- **Shoreline Protections** – Shoreline protection is critical to the long-term prosperity of the USVI. From the perspective of wildlife habitat, these areas serve as nurseries and feeding grounds for a diversity of wildlife. Culturally, many of the USVI's shoreline areas are important recreation locations with places for socializing and access points for swimming and diving. From a resilience perspective, the shoreline is the last line of defense against storm surge and sea-level rise. Performance standards for these areas must consider the unique strengths and vulnerabilities of different shorelines, using tools like the USVI Coastal Vulnerability Index to help shape site specific approaches to protecting these areas.
- **Steep Slopes** – While more pronounced on St. Thomas and St. John, each of the three major islands and the offshore cays have an abundance of steep slopes that require special protections and treatment when considering development. Disturbing or placing structures on these steep areas can create hazardous conditions for both the people using that site and those who live nearby (especially downhill). Exposed and destabilized slopes can create landslides or massive structural failures, especially during and immediately after extreme storms and earthquakes. Performance standards set thresholds for both the size and steepness of slopes where development is prohibited or where strict architectural controls will be required.
- **On-site Wastewater Disposal Systems (OSDS)** – Where residents and business owners do not have access to centralized sewer service, they must dispose of their wastewater on-site with an OSDS, sometimes called a "septic system." The systems that are in the ground today operate at a wide range of effectiveness with the greatest concern being system failure, which can lead to environmental pollution and public health risks. More commonly, existing systems fail to remove many of the pollutants in wastewater such as nutrients, which can cause major water quality problems for our bays. The Coral Bay Community Council (St. John) played a leadership role in two studies on OSDS technology, examining both the regulatory program and the performance of different systems (see inset). These studies can serve as a foundation for work across all the USVI, helping to address an important environmental challenge.

COMP PLAN SPOTLIGHT: CORAL BAY COMMUNITY COUNCIL HELPING TO SHAPE OSDS POLICY DEVELOPMENT*

Little is known about the actual performance of residential OSDS in the USVI or in other similar island settings, or how such performance is affected by variables such as the strength of wastewater entering the system, shallow soils, fractured bedrock, seasonal/vacation-rental use, wet vs. dry season rainfall, frequent power outages, etc. Yet these systems have the potential to contribute significant levels of pollution to groundwater and downgradient coastal waters.

In 2019 and 2021, CBCC led a two-phase assessment of OSDS technologies to start building local capacity for effective OSDS selection. Phase I evaluated the types of OSDS in use, identified other OSDS technologies that may be suited for USVI's unique environmental conditions, and outlined a sampling and monitoring plan. In Phase II, the project team organized and provided oversight of wastewater sampling and analysis from four residential OSDS on St. John. Information collected under the CBCC Phase II study will help improve system selection, wastewater regulations and design guidance as well as installation, operational and maintenance practices in the USVI and beyond.

Despite the limited budget, timeframe, challenges, and data gaps, the data set generated from this study provides insights that are beneficial to system owners, regulators, technology manufacturers, and watershed stakeholders. The work provides a foundation to build out a robust data set of OSDS performance in the Coral Bay Watershed and beyond. As part of the project, it was noted that protecting and processing samples from the OSDS was challenging as laboratory collection, transportation, and quality control procedures can interfere with the ability to analyze samples or may compromise sample results. EPA-certified laboratory sampling and quality control procedures should be evaluated for USVI-specific constraints. With these insights into system performance and the challenges of evaluating samples in the USVI, CBCC has set the stage for continued study and science-based policies that will protect watersheds across the USVI.

On-site Wastewater Disposal System

*Some of this text is adapted directly from Advancing Onsite Wastewater Treatment in the USVI: A Wastewater and Treatment Performance Field Study of Current Systems Used on St. John, USVI (Phase II), 2021.

Cays, Near-Shore, and Marine Resources

Along and off the shores of the three main islands are a wealth of natural resources. The USVI cays are diverse in their size and terrain, offering a variety of opportunities for visitors and cay residents to experience nature in special ways. Some of the more remote cays provide opportunities for day-trip excursions for boaters, which is a tremendous resource but a situation where poor behavior or simply a lack of understanding can result in significant environmental damage.

In the near-shore environment, stands of mangroves are specialized to different habitats with the most dramatic being the red mangrove stands in fully submerged areas. These trees create elaborate networks of vertical underwater roots that serve as habitat and spawning areas for a diversity of wildlife. Other types of mangrove include the shoreline loving black mangrove and the more upland white mangrove. Together, these different species create an important continuum of habitat and provide valuable protection from storm surge and wave action during extreme storms. They also trap sediment, which enriches the mangrove environment and further protects adjacent marine waters. Mangroves also provide significant carbon storage, an under-appreciated ecosystem service for which UVI is now tracking data. This data can be leveraged in the future for carbon markets, bringing new conservation funds into the Territory for mangrove protection.

Shorelines and beach environments are also critical for wildlife, supporting breeding and nesting for specialized bird species and sea turtles. Protecting these areas from harmful trespass, light pollution, and predations are examples of important protection techniques related to these sensitive wildlife species. Further offshore, beds of seagrass, sandy ocean floors, and coral structures serve an incredible array of marine wildlife, providing snorkelers and divers with truly special experiences.

As a baseline for regulating use and activities in these areas, Territory-wide regulations related to fishing and boating are established, including official navigation channels. Cargo, cruise ships and other larger vessels are subject to federal regulation at sea and berthing of larger vessels in designated ports is managed by the Virgin Islands Port Authority (VIPA). Local planning for the protection of coastal and marine resources relies on several different mechanisms.[1]

National Parks

The U.S. Federal Government manages MPAs in the USVI primarily through the National Park Service (NPS) of the U.S. Department of Interior and the Caribbean Fisheries Management Council, funded by the U.S. Department of Commerce National Oceanic and Atmospheric Administration (NOAA). National Parks include the Virgin Islands National Park on St. John/St. Thomas and Salt River Bay National Historical Park and Ecological Preserve.

National Monuments

Monuments were established through Presidential Proclamation via the Antiquities Act of 1906 for the "protection of objects of historic and scientific interest... confined to the smallest area compatible with the proper care and management of the objects to be protected." USVI monuments include Buck Island Reef National Monument (including expansion) and the Virgin Islands Coral Reef National Monument in St. John.

Federal Fishery Closures (Seasonal & Year-Round)

In response to historical overfishing at important multi-species fish spawning aggregations, several fishery closures were established by the Caribbean Fishery Management Council with participation from the local fishing community.

1 The text summarizing these mechanisms is adapted directly from *Marine Protected Areas of the US Virgin Islands, Ecological Performance Report, October 2014 NOAA Technical Memorandum NOS NCCOS 187.*

Top: Bird Blind at Southgate Coastal Reserve, St. Croix

Bottom: Bioluminecent bay in the Salt River National Historical Park and Ecological Preserve, St. Croix

Top: Sandy Point National Wildlife Refuge, St. Croix

Bottom: Whale Point, East End Marine Park (EEMP), St. Croix

Areas of Particular Concern

Areas of Particular Concern were declared by the USVI Coastal Zone Management Act of 1978 due to their special significance. Eighteen sites were selected as Areas of Particular Concern; these areas include some land areas and most extend out to the Territorial three nautical mile limit offshore. Draft management plans were developed for some Areas of Particular Concern, but these have not been formally implemented.

Marine Sanctuaries & Wildlife Reserves

Between 1992 and 2000, five Marine Reserve and Wildlife Sanctuaries were established as permanent year-round no-take MPAs supported by both the Wildlife and Marine Sanctuaries Act of 1980 (Act No. 5229), and the Virgin Islands Code Title 12, Chapter 1, Sections 94, 96, and 97 authorized in 1994. These MPAs were designated specifically to offer high protection for critical habitat for species of fishery value and for recreational and educational purposes. Three of the MPAs (Cas Cay and Mangrove Lagoon, St. James, and Compass Point Pond) are located on the East End of St. Thomas and are now integrated into the St. Thomas East End Reserves. Small Pond at Frank Bay is located on St. John and Salt River is located on the northern shore of St. Croix.

Territorial Marine Parks

Territorial Marine Parks are formally approved by the Legislature and any approved parks are under the management of the Coastal Zone Commission. Currently, the St. Croix East End Marine Park is the only officially approved marine park and the legislation provides four mapped areas that serve as the basis for management and regulation. These include:

- **No-Take Zones** – Areas where all living marine resources are protected through prohibitions on fishing and the removal or disturbance of any living or non-living marine resource, except as necessary for research or monitoring to evaluate park effectiveness.
- **Open Zones** – Areas where there are no restrictions on fishing, boating, and diving activities.
- **Recreational Zone** – Areas designated for snorkeling, diving, boating, recreational take fishing, catch and release fishing, and bait fishing. (Activities that would compromise the recreational values of the area are prohibited.)
- **Wildlife Preserve Zones** – Areas where some or all the biological resources are protected from removal or disturbance. These include reserves established to protect threatened or endangered species.

The mechanisms listed above provide important protections for marine and coastal features that are critical to the long-term sustainability of the USVI's quality of life, ecological health, coastal resiliency, and economic viability. One of the challenges with the current system is the complex layering of different mechanisms that often overlap and create confusion regarding "who" is meant to enforce "what" restrictions. Moving forward, agencies involved with these mechanisms should continue to coordinate but also consider an initiative to significantly clarify and streamline enforcement/administration.

GOALS, POLICIES & STRATEGIES

GOAL 1: MANAGE AND REGULATE LAND USE TO PROTECT AND IMPROVE WATERSHED HEALTH AND THE NATURAL WATER CYCLE.

Policy: Evaluate development proposals from a watershed management perspective to account for the connection between upstream development and downstream adverse impacts.

Strategy: Complete and continue to update the DPNR Watershed Management Plans for the entirety of the three main islands. The efforts related to the most recent multi-island study (nine watersheds) can be used as a model for a consistent approach, yielding management plans tailored to each watershed. Coordinate the findings of Watershed Management Plans with the updating and implementation of management plans for Areas of Particular Concern (APCs).

Strategy: Adopt and continually update standards for site design that steer development away from environmentally sensitive areas or places susceptible to adverse impacts and proactively enhance environmental conditions when possible.

Strategy: Formalize a comprehensive set of development performance standards to make sure new development and redevelopment has minimal impact on and, where possible, restores and improves the surrounding environment and accounts for potential impacts to resources downhill and downstream, including into coastal and marine environments.

Policy: Protect and become better stewards of groundwater resources through data collection and development policy.

Strategy: Invest in ongoing baseline study of groundwater aquifer characteristics throughout the Territory.

Strategy: Develop and fund a system for ongoing monitoring of groundwater levels (i.e., elevation) and water quality.

LESSONS LEARNED

In order to steer development away from sensitive resources, you have to know where they are. In the development process, this information generally comes from three different sources:

1. Publicly Available Data: The Plan calls for a major investment in the development, maintenance, coordination, and publishing of data—including the location of valuable natural resources. These data can be incorporated into permit applications, reducing costs for developers and increasing transparency. Importantly, where these data are required as part of an application, the permitting agency must do everything it can to make the data easily accessible. Data is available from a variety of sources, both local and regional/national. Some key national resources include the Southeast Aquatic Resources Partnership, the Southeast Conservation Adaptation Strategy (SECAS), and the National Wetlands Inventory, among many others.

2. Developer Applications: These documents will contain the publicly available data mentioned above but should also have site-specific data produced by the applicant. Topography (steep slopes, shorelines), culturally significant features, large trees and similar features should be called out in application checklists.

3. Local Knowledge: In sensitive areas or for large development proposals, the public should have an opportunity to comment on site conditions, potentially revealing unique knowledge related to important resources.

Strategy: Develop a water use plan for each aquifer and provide tools and resources for staff to effectively monitor and preserve the islands' groundwater resources.

Strategy: Continue to update regulations related to both stormwater management and wastewater disposal that are practical for USVI conditions and protective/ restorative to groundwater supplies.

Strategy: Through GIS mapping and conversations with stakeholders with local knowledge, identify former and current pond sites and assess the feasibility and environmental impacts of re-establishing them.

Policy: Require best practices in site development and landscaping techniques to manage pollution from roadways, stormwater runoff, septic waste, and wastewater effluent.

Strategy: Continue to update and apply the *US Virgin Islands Environmental Protection Handbook* to new development applications for the purposes of stormwater management and erosion control.

Strategy: Develop comprehensive guidelines for new driveway construction in different conditions, with an emphasis on steep slopes, to minimize water and pollutants leaving the property and entering the driveway and public roadway.

Strategy: Implement the Onsite Sewage Disposal Systems (OSDS) related recommendations from the Coral Bay study and replicate/ expand the testing of innovative OSDS on St. Thomas and St. Croix.

Strategy: Provide training and guidance to designers and contractors on the techniques needed to meet development standards and the maintenance needs for different practices. Consider the development of formal credentials for training as an incentive, which would give preference for public contracts.

Strategy: Require a clear path forward for contaminated sites that includes detailed plans for remediation developed and executed by licensed remediation professionals in compliance with EPA regulations. Ensure regular communication of risks and progress to surrounding neighborhoods.

GOAL 2: MANAGE AND REGULATE COASTAL AND MARINE WATER USE IN A WAY THAT PROTECTS AND IMPROVES PUBLIC HEALTH, ECOLOGICAL SYSTEMS, AND ECONOMIC WELL-BEING.

Policy: Build capacity to enforce and improve regulations that protect against environmental degradation, sedimentation, and illegal boating, anchoring, mooring, and fishing, and other behaviors harmful to marine resources, while also encouraging the restoration of the environment through responsible boating and fishing.

Strategy: Ensure adequate and sustainable funding for staff, boats, and equipment to effectively and consistently enforce existing regulations in bays and coastal marine areas within USVI jurisdiction.

Strategy: Improve and implement existing plans for marine protected areas and identify other potential locations for protection, with an eye toward habitat regeneration.

Strategy: Update and implement management plans for all Areas of Particular Concern (APCs).

Strategy: Clarify the role of different protection areas (e.g., APCs, Marine Parks, Marine Management Plans, Wildlife and Marine Sanctuaries) and potentially consolidate some of those.

Strategy: Develop clear maps and signage for all bays and coastal marine areas that identify allowable activities and intensities of use in those areas. Use the STXEEMP zoning as a reference and the pilot bay assessment study from DPNR as a starting point.

Policy: Pursue the preservation of land that will provide greater protection of critical natural resources.

Strategy: Develop a formal system to evaluate, rank, and prioritize parcels of high conservation value for inclusion in the VI Territorial Park system. Utilize data-driven metrics, including the most recent iteration of SECAS Blueprint GIS data for the Territory.

Strategy: Prioritize lands for conservation and remediation that are adjacent to existing vulnerable coastal natural resource areas to allow for inland migration of wetlands, shorelines and beaches as sea level rise occurs.

Strategy: Revisit and revise development and setback standards to better protect/ enhance public access and public spaces like shorelines, and beaches, which are threatened with shrinkage, loss of connectivity, or total loss due to coastal erosion.

GOAL 3: ADOPT A COMPREHENSIVE, PRACTICAL SYSTEM OF GUIDANCE AND REGULATION THAT PROTECTS SENSITIVE TERRAIN AND SPECIFIC NATURAL FEATURES.

Policy: Develop a more effective system of regulations and enforcement for the cays.

Strategy: Provide funding for adequate staff and boats to patrol, inspect, and enforce regulations on and around the cays.

Policy: Develop clear standards and guidance for protecting and restoring guts, wetlands, and mangroves.

Strategy: Adopt protective buffers to these resources and specific development standards within those buffer zones.

Strategy: Reestablish a relationship with the U.S. Geological Survey (USGS) to install and maintain gauge stations in freshwater guts across the Territory, and provide any needed local match. Over the next ten years, rebuild the extensive monitoring program of the past, including a local USGS presence, monitoring of surface water flow and quality and groundwater flow and quality, and production of educational publications for the public. Build toward a 50/50 local/ federal match akin to the same program in Puerto Rico.

Policy: Develop clear standards and guidance for landscape protection and installation.

Strategy: Prohibit the installation of any invasive species in landscaped areas.

Strategy: Develop a comprehensive landscaping handbook and training, certification, and licensing program for choosing and installing appropriate plant species considering drought-resilient, flood-tolerant, recharge-supporting, native, habitat-building, and/or non-invasive species.

Policy: Develop clear standards and guidance for protecting beaches and other coastal features.

Strategy: Identify coastal areas vulnerable to erosion and inundation using the *Hazard Mitigation and Resilience Plan* and the *Coastal Vulnerability Index*, and make this information easily accessible to the public.

Strategy: Set standards for these areas that include considerations for buffers and accommodations for inundation and beach, shoreline, and mangrove migration inland in response to sea level rise to maintain beach accessibility and connectivity.

Strategy: Explore mechanisms for adopting formal conservation areas for the coral reef restoration sites identified in the *U.S. Virgin Islands Coral Reef Restoration Plan*. Integrate this information with management planning for APCs.

PREPARING FOR A MORE SUSTAINABLE FUTURE

BACKGROUND

The question of what constitutes a more sustainable future for the USVI can be answered with a wide range of perspectives. For the purposes of the Plan, the focus is on how achieving a balance of development and preservation will lead to healthier and more resilient communities. In the wake of many severe storms, hotter summers, and continued drought, residents understand the need for plans, infrastructure, and local systems that better prepare the USVI for challenging conditions.

MEETING BASIC NEEDS SUSTAINABLY

As a collection of island communities, the USVI faces unique challenges related to delivering many basic needs in a sustainable manner. Drinking water, waste management, groceries, fuel, and electric power are examples of essential everyday needs that are more difficult to deliver and manage around the islands. These logistical difficulties put a strain on residents in the form of inflated prices and damage the environment. The challenges associated with these basic needs also create opportunities for other sustainable approaches like composting, renewable energy, more complete local food production, and more innovative water production, collection, treatment, distribution, and storage practices. Each of these approaches has land use considerations, and policies should be designed to foster opportunity for different sustainable strategies.

Balancing development and preservation, and planning for sustainable infrastructure will lead to healthier, more resilient communities (image from Coral Bay, St. John).

Preparing for natural disasters with evacuation routes and meeting basic needs like waste management are all part of preparing for a more sustainable future.

RESIDENTIAL

– FIRST 250 KWH –

Residential Energy Charge:	$ 0.181456
Fuel Charge:	$ 0.222246
Pilot Surcharge:	$ 0.000686
Self-Insurance Surcharge:	$ 0.001925
OPEB Surcharge:	$ 0.002166

Total Residential Charge:
$ 0.408479 / kWh

RESIDENTIAL

– ALL OTHER KWH –

Energy Charge Fuel Charge Pilot Surcharge Self Insurance Surcharge OPEB Surcharge

Residential Energy Charge:	$ 0.207654
Fuel Charge:	$ 0.222246
Pilot Surcharge:	$ 0.000686
Self-Insurance Surcharge:	$ 0.001925
OPEB Surcharge:	$ 0.002166

Total Residential Charge:
$ 0.434677 / kWh

COMMERCIAL

– ALL KWH –

Commercial Energy Charge:	$ 0.246533
Fuel Charge:	$ 0.222246
Pilot Surcharge:	$ 0.000686
Self-Insurance Surcharge:	$ 0.001925
OPEB Surcharge:	$ 0.002166

Total Commercial Charge:
$ 0.473556 / kWh

In addition to the per kWh rates, all customers are assessed a flat rate customer charge.

Residential: $ 4.86 **Commercial**: Single Phase: $ 6.33 or Three Phase: $ 12.65

Electric power costs in the VI (www.viwapa.vi/customer-service/rates/electric-rate)

COMP PLAN SPOTLIGHT – MILESTONE REPORTS ON RESILIENCE

USVI Hurricane Recovery and Resilience Task Force Report, 2018*

In the aftermath of Hurricanes Irma and Maria, Bloomberg Philanthropies supported direct response efforts and assessment of several of the vulnerabilities exposed by those storms. Gov. Kenneth Mapp called for the creation of an independent hurricane task force to evaluate the damage and response and to propose solutions for rebuilding a more resilient Territory to withstand the increasing impacts of climate change. The Task Force was made up of 20 volunteers from the public and private sectors; it included heads of government agencies, business and community leaders, as well as many outside experts who helped with the immediate response and long-term rebuilding in the months to follow.

The report recommends a total of 119 initiatives across ten separate sectors, focusing on where vulnerabilities were exposed during Hurricanes Irma and Maria. While this report views these initiatives through the lens of emergency response and storm resiliency, it is important to note that many of the recommended initiatives would have tangible positive impacts related to economic development, environmental protection, government function, and land and water use. The report illustrates that planning for resilience goes well beyond addressing natural hazards by also leading to outcomes that can improve everyday quality of life.

*This text is adapted directly from the Task Force report.

South Atlantic Coastal Study (SACS), USVI Appendix, 2021

The US Army Corps of Engineers (USACE) developed this report as part of a larger effort to assess resiliency issues across the southwest region, with each of the eight states/territories having its own appendix report. In addition to an assessment of the USVI as a whole, focus areas were assessed, including Charlotte Amalie and Christiansted. The document provides a list of recommendations for the Territory as a whole and for those focus areas, making it an important reference for any implementation related to land and water use resiliency efforts. Several recommendations in this section are adapted directly from that document.

PREPARING FOR AND RESPONDING TO HAZARDS

As a community of islands, the USVI is experiencing many of the effects of climate change more dramatically than most other areas of the U.S. Situated in the path of severe storms and potentially debilitating hurricanes and tsunamis, residents and business owners are vulnerable to extended periods without power, basic services, food, water, communications, and transportation. Along with storms, rising seas, and erosion, increased ocean temperatures and extended droughts will change the environments that enable coral, mangroves, coastal wetlands, beaches, and other important natural areas to thrive. Policies for land and water use should carefully consider the safety issues associated with real estate development in areas with high storm-related risks. New policies should encourage preparation for drought as well as flood events. Policies must also factor in the long-term impacts of warming oceans and what measures can be taken to foster the resilience of sensitive coastal and marine resources, mitigate shoreline loss, and protect bays and harbors both environmentally and for human use.

PLAN FOR MORE SUSTAINABLE WASTE MANAGEMENT

Waste management is often divided into two broad categories: solid waste management (food waste, trash, and debris) and wastewater. The challenges related to solid waste management have become global in scope, with media attention regularly featuring stories about plastics, a failing global recycling market, "forever chemical" pollution, and ocean trash. In the USVI, solid waste management faces issues of limited land for management facilities, outdated collection systems, high costs of collection, and landfills at capacity. For wastewater, the issue of public sewers presents challenges for the Territory. A properly functioning sewer system provides invaluable service to residents and businesses and, when properly designed, can help to protect the environment. Where residents and business owners do not have access to centralized sewer service, they must dispose of their wastewater through on-site septic systems (OSDS)[1]. Failure of these systems to operate properly can lead to environmental pollution and public health risks.

Participants in the Plan process raised many issues related to waste management, including:

- The need for alternatives to the current system of roadside waste disposal bins.
- A strong desire for more opportunities to recycle and compost, and to keep recyclable and organic materials out of the landfills.
- Concerns about landfill management and the outbreak of fires.
- A desire to see more large businesses and resorts adopt more sustainable waste management practices.
- The need for more easily accessible facilities to collect and process abandoned vehicles.
- The need for a more reliable and expansive public sewer system.

1 The issue of OSDS improvements is addressed in more detail in the chapter on *Protecting Our Natural Resources*.

Shifting from Roadside Bins to Convenience Centers

Until the 1980s, the Department of Public Works managed curbside waste collection throughout much of the Territory. As development expanded, this became increasingly difficult and expensive, and a new system was created with roadside disposal bins managed by Waste Management Authority (WMA). These open-air bins have, over the years, been subject to animal infestation, dumpster fires, and sources of polluted stormwater runoff during and shortly after it rains. For a more sustainable future, it is clear these practices must change. The VI Waste Management Authority (WMA) is working to replace all roadside waste bins with "convenience centers" – indoor facilities for waste drop off that can, over time, evolve to manage recycling as well as waste transfers. Expanding recycling is critical, but as noted above, the limited market for recyclables and the expense of shipping waste off island are a challenge. At the time this Plan was developed, construction of three convenience centers on St. Croix was imminent and three sites were being identified for St. Thomas. WMA plans to replace all roadside bins with convenience centers in the coming decade.

Future of the Landfills

The Anguilla landfill on St. Croix has long been stretching the limits of its capacity and, at the time this plan was developed, was facing closure. WMA has funding to close Anguilla and move operations to a new site and is narrowing down a field of options for a new landfill location. However, it will likely take at least seven years before a new landfill is operational, so WMA is exploring other options for interim landfill capacity on St. Croix. The Bovoni Landfill on St. Thomas has the potential to expand onto neighboring USVI government owned property. WMA estimates that such an expansion could extend operations at Bovoni for approximately 50 years. To design this expansion so that it is compatible with the natural resource and resilience goals of this Plan, the expansion should include activities that are protective

Top: Bovoni Landfill, St. Thomas

Bottom: Overflowing sewers in Christiansted, St. Croix

of existing wetlands, including capturing any opportunities for improved conditions in the existing landfill. In the long-term, projection for sea-level rise and inundation should be carefully considered in expansion design plans.

Public Sewers

The public sewer system in the Territory is managed with five treatment plants on St. Thomas, one on St. Croix, and one on St. John (with a much smaller second plant at the George Simmons Terrace housing development). Currently, all plants are operating within their capacity, but there are vulnerabilities within the system. FEMA approved replacing the entire sewer network on St. Croix, and that project is in the costing and engineering phase. This project is designed to make the system more resilient to climate change and related increases in storm intensity. For example, the Lyndon B. Johnson (LBJ) pump station is near the ocean and is subject to impacts from sea level rise, corrosion, and pollution. Currently, if this pump station temporarily ceases to operate, the sewers of Christiansted can start backing up within approximately 18 hours, damaging homes and businesses, creating public health concerns, and discharging untreated sewage to the ocean. Relocating that pump station will make it more reliable. Similar sewer system replacement efforts are under consideration by WMA and FEMA for St. Thomas and St. John. Improvement and replacement of the existing systems is an enormous project and will likely place considerations for expanding services on hold. However, WMA would like to pursue a plan for intentional sewer expansion where there is high demand from current or expected future development, high need to protect water quality, or great community needs.

Other Waste Management Concerns

Green waste and food waste are two major concerns. Green waste, including yard waste and tree trimmings, should be processed into mulch and similar reusable material but limitations on equipment and limited demand for the material make it difficult to keep pace with the volume of vegetation cleared from roadways and the large amount of trees and vegetation that need to be cleared after storms. In many instances, this waste ends up being transported to the landfill where it can create instability or catch fire. Food waste largely ends up in the landfill as well, except for a small percentage of residents and businesses who compost their food waste on their own property. There is also an inadequate capacity of pumpout stations for boats and other water vessel waste disposal.

As a final challenge to note, like so many other agencies in the USVI, WMA is stretched to capacity and struggles to hire enough employees. Basic services need to be maintained before the agency can expand significantly into recycling or composting, although these additional services would bring tremendous economic and environmental benefit to the USVI. In addition to staff capacity, the sewer system replacement (and any other large projects) will need significant staging sites for construction – something that is hard to come by with limited land – and there is a recurring need for areas to store and sort through storm debris. Finally, WMA runs on a structural budget deficit that has existed since it was formed in 2004, and has struggled to expand revenues while maintaining affordable services for the Territory.

GOALS, POLICIES & STRATEGIES

GOAL 1: DEVELOP AND MAINTAIN INFRASTRUCTURE THAT IS RELIABLE, RESILIENT, AND SUSTAINABLE.

Policy: Strengthen the Territory's infrastructure against current and projected climate impacts including hurricanes, flooding, drought, sea level rise, heat, and others.

Strategy: Continue to implement resilient infrastructure approaches identified in previous planning efforts, such as the *USVI Hurricane Recovery and Resilience Task Force Report 2018* and other post-disaster recovery efforts. Continue to refine long-term planning for increasing electric energy independence for residences, commercial, and public facilities.

Strategy: Invest aggressively and continue to rebuild a more reliable power grid using on-site power sources, microgrids, battery storage, burying utilities where possible, installing composite utility poles, etc.

Strategy: For all public projects (e.g., schools, parks, other facilities) identify any potential options for integrating energy infrastructure that serves the broader goal of resiliency. For example, identify whether there are areas for battery storage or solar or wind power.

Strategy: Require that all infrastructure planning, construction, and maintenance focus on hurricane and storm damage reduction, prevention of saltwater intrusion, preservation of fish and wildlife, and prevention of erosion.

Strategy: Map and digitize all utility infrastructure in the Territory to better coordinate construction, upgrades, and repair and to better understand vulnerabilities.

Policy: Reduce reliance on fossil fuels by encouraging energy efficiency and promoting renewable energy sources.

Strategy: Modernize the grid to enable the uptake of additional renewable power and build several microgrids that can operate independently in the event of power outages.

Strategy: Review and update zoning and other regulations to ensure that renewable energy is not hindered but also is not developed at the expense of existing undeveloped areas or other environmentally sensitive areas. For example, prioritize solar panel installation on rooftops, carport canopies, and agrivoltaics for small crops that require shade, over ground mounted solar facilities that would consume open space, agricultural, or forested areas.

Strategy: Require permit applications to identify end-of-life options for how to dispose of and/or recycle the component parts of renewable energy systems.

Policy: Develop a Territory-wide waste program to reduce litter and landfill deposits, salvage valuable materials, and improve the health of the islands.

Strategy: Develop an Integrated Solid Waste Management Plan to improve efficiency and effectiveness all around, including better recycling and composting, green waste management, and hazardous waste. Include an analysis of current WMA operations with an eye toward increasing revenue without burdening local residents and small businesses.

Strategy: Study options from other island communities to reduce waste and expand the types of materials that are recycled and reused.

Strategy: Develop a more accessible and environmentally friendly network of waste disposal sites on all islands. Expedite planning and implementation of convenience centers and other more formalized, environmentally protected trash disposal and recycling sites on all three islands, ideally with at least some capacity to pre-process some of the refuse flows.

Strategy: Provide incentives to reduce waste and expand the types of materials that are recycled and reused, including recycling, green waste, and composting facilities.

- Provide incentives or require that commercial food waste be composted and reused on-island. Provide free food waste drop off sites for residential customers. Turn food waste into compost that can be sold or given away to local farmers and residents.
- Stop sending green waste (yard trimmings, tree branches, leaves, etc.) to the landfills. Expand existing mulch production programs to accept more green waste for mulch production, which can be given away or sold.
- Explore options for incineration and give serious consideration to systems that burn waste while trapping or reusing harmful exhaust and ash.
- Provide hazardous waste drop off sites to accept household hazardous waste and waste from small businesses, including tires, gasoline, paints, batteries, fluorescent light bulbs, motor oil, cleaning products, cooking grease, etc.
- Institute a tipping fee to accept hazardous waste from larger businesses.
- Explore options for producer responsibility standards, so that manufacturers and/or sellers of products such as paint, mattresses, tires, etc. are responsible for collection, recycling, and reuse of their products sold in the Territory.

Strategy: Identify new waste disposal capacity, so that existing landfills may be closed and remediated to reduce contamination, avoid future fires, and potentially be tapped for methane capture.

Strategy: Identify USVI government owned property on each major island appropriate for the sorting and temporary storage of storm debris. These areas could serve as construction staging areas when not needed for storm debris.

Policy: Continue to improve and expand the Territory's public sewer network in a way that will best serve the public, protect the environment, and be secure against climate change.

Strategy: Oversee the complete sewer network replacement on St. Croix and ensure that funding and permitting is secured for St. Thomas and St. John as well. Continue to work with DPW and other partners to ensure that the timing of this project is coordinated to the greatest extent possible with other utility needs.

Strategy: Develop a Future Sewer Service Plan, mapping priority areas for expansion based on high demand from current or future expected development, high need to protect water quality, or identified community needs.

Strategy: Identify USVI government owned property on each major island appropriate for staging areas for utility construction. These areas could serve as temporary storage for storm debris as needed.

GOAL 2: BUILD CAPACITY FOR GREATER SOVEREIGNTY RELATED TO FOOD AND WATER SUPPLY SYSTEMS WITH APPROPRIATE LAND AND WATER USE STRATEGIES.

Policy: Adopt development standards and design infrastructure to treat, store, distribute, and conserve water supplies.

Strategy: Fund and implement a multi-year project to upgrade the public drinking water supply distribution system, including maintenance and testing of onsite water storage and filtration systems.

Strategy: Adopt inexpensive development standards to facilitate lower water use (e.g., drought tolerant landscaping) and encourage on-site water treatment, storage, and conservation strategies, including separating rain, gray, and sewage water streams for processing. Explore mechanisms to provide grants and other assistance to property owners to adopt these strategies.

Strategy: Explore opportunities for more water reuse, including capturing more rainwater and stormwater runoff and wastewater reuse, from smaller scale cisterns on residential lots to larger scale retention ponds. Identify where opportunities might exist for reuse, such as for groundwater replenishment, irrigation, agriculture, and drinking water.

Strategy: Set standards for establishing new wells and allowable withdrawal volumes based on projected groundwater capacities and establish fines for violations.

Strategy: Provide funding and government staff/contractors for ongoing voluntary monitoring and testing of private wells, to ensure that water extraction is not having unintended consequences to neighbors and the island's groundwater aquifers and to track the spread of pollutants and saltwater inundation.

Strategy: Use scientific study to identify areas where structural diversions may be used to create emergency water access and/or supplies for agricultural operations.

Strategy: Identify land that is favorable for future desalination facilities. Preserve these parcels and perform feasibility studies for future distribution systems.

Strategy: Provide support for terracing and slope stabilization for agricultural operations.

Policy: Use land and water use policies to create greater food sovereignty across the USVI.

Strategy: Revise zoning regulations to ensure all elements of a self-contained food system can be established in appropriate areas. This includes growing, processing, storing, distributing, sales, food service, and waste management for both farm and fishery products. The *USVI Agricultural Plan* provides a detailed list of regulatory recommendations that should be used as the foundation for a multi-year reform project.

Strategy: Revise zoning regulations to enable 21st century agricultural and aquaculture practices in both indoor and outdoor environments, and also at scales as small as single residential properties.

Strategy: Evaluate government-owned land to identify parcels that may be strategically located and suitable for growing, food processing, and long-term food storage facilities.

Strategy: Consider the use of agricultural overlay zones that provide strong incentives for using lands suitable for agricultural use as active farming operations and waters suitable for commercial and subsistence fishing.

Strategy: Invest in the development of a data system, including staffing, that tracks agricultural and aquacultural/fishery use and production in a manner that can address the benchmarks identified in the *USVI Agricultural Plan*.

Strategy: Engage with the local farming community to identify accessory business uses that will add income to the farming operations and are appropriate in the context of the surrounding neighborhoods.

Strategy: Implement and continue to refine "Additional Recommendation I" from the *USVI Agricultural Plan*, related to developing a comprehensive irrigation system and water supply. Develop detailed guidance on identifying lands for agricultural ponds, storage tanks, and wells, as well as for permitting and maintaining these facilities.

GOAL 3: ADOPT LAND AND WATER USE POLICIES AND REGULATIONS THAT ANTICIPATE THE IMPACTS OF THE CHANGING CLIMATE AND STRENGTHEN THE USVI'S ABILITY TO MEET THESE CHALLENGES.

Policy: Use the best available data for sea-level rise, ocean temperature change, precipitation, and other climate change related impacts in decisions about land and marine area use.

Strategy: Work with federal agencies, UVI, and regional partners to create and maintain up-to-date data related to climate change for purposes of risk management, coastal planning, and development review.

Strategy: Work with academic, territorial, and federal partners to identify appropriate coastal hazard and climate models that account for the USVI's unique geographic and bathymetric characteristics. In particular, identify hazard modeling approaches that incorporate wave impacts and wave runup in addition to storm surge and sea level rise.

Strategy: Consider establishing standardized climate change and hazard projections across multiple planning horizons for use by Territorial agencies when making land use decisions (e.g., plan for X-foot of rise by 2050).

Policy: Adopt new or improved development regulations that anticipate more frequent and more severe storms, sea-level rise, and coastal erosion, among other climate impacts.

Strategy: Require the inclusion of relevant data related to natural hazards in development applications and any proposed zone change.

Strategy: Increase DPNR capacity to adequately enforce the current building code, which is intended to reflect the stressors of Category 5 hurricanes.

Strategy: Establish a fixed, mapped shoreline for regulatory purposes, which could be used as a baseline for regulatory setbacks. Options include using the mean high water mark and revising this line at regular intervals (e.g., every five years).

Strategy: Establish criteria that can be used to guide redevelopment of structures that were severely damaged by flooding or slope destabilization. For example, criteria could help determine where structures may be built back to their original footprint or whether a site has become too dangerous, and rebuilding is therefore not an option.

Strategy: Develop freeboard requirements within the regulatory floodplain that raise the required elevation of a building's lowest floor to a height above the most recent modeling for flood elevation.

Strategy: Evaluate options for introducing managed retreat strategies into land and water use planning. For example:

- Some communities have implemented rolling easements, which "roll" inland in response to sea level rise and coastal erosion. States and communities have included various restrictions on building or repairing hard armoring within the rolling easement zone.
- Identify areas where protection, accommodation, retreat, and preservation strategies would be most appropriate given the current siting of critical infrastructure, population centers, and the natural environment. For example, hard armoring may be permitted in "protection zones" but not permitted in "retreat zones."
- Identify opportunities for buy-back programs to encourage relocation out of high-hazard areas. Such incentives should have income limits to prioritize support for lower-income property owners.

Strategy: Revise the current setback and construction standards for shoreline to reflect site-specific considerations for safety, infrastructure protection, and future access to public spaces including beaches and shorelines. Options include applying an erosion-based setback standard, which assumes specific increases in sea level rise and erosion rates over the lifetime of the structure.

Policy: Pursue nature-based solutions, including green-grey infrastructure, habitat conservation and restoration, that increase the long-term resilience of natural systems and provide hazard mitigation benefits to people and property.

Strategy: Invest in research to identify coral-friendly engineered solutions that may be successful in different marine conditions in the USVI. Consider public/private partnerships as an incentive for pilot implementation projects.

Strategy: Develop performance and design standards for green-grey infrastructure and habitat restoration to align with the reliability and risk expectations of traditional construction standards.

Strategy: Identify future areas for inland migration of wetland and beach habitat and establish best practices in site design for moving or removing restrictive structures that may prevent inland migration.

Strategy: Identify and continue to develop assessment methodology, data, and tools to aid site prioritization for conservation and restoration projects that consider multiple potential social and environmental benefits.

Strategy: Develop and standardize forest restoration and tree planting protocols that focus on the use of appropriate native tree species and builds in improved drought and fire resistance.

Policy: Incorporate sea level rise projections into the development of public coastal structures as well as approval processes for private development.

Strategy: Develop criteria to evaluate proposed projects or policies and address assets already in high-risk areas.

Strategy: Update the criteria for designating sites as Areas of Particular Concern for the purposes of coastal zone management to account for future climate projections.

Strategy: Consider changes to floodplain requirements to reduce overall flood damage potential and encourage resilient retrofits by amending the substantial improvement regulations. For example:

- Some communities base their substantial improvements regulations on the *cumulative* value of improvements over a specified time period.
- Some communities base their substantial improvements regulations on a *lower threshold* than the 50% floor established by the National Flood Insurance Program (NFIP).

Policy: Expand Urban and Community Forestry Programs to increase native tree planting, maintenance, and preservation practices to help provide shade and access to fruit trees per the Community and Heritage Tree Law of the Virgin Islands.

Strategy: Conduct a comprehensive public tree inventory, which could include data about tree species, tree diameter, planting site characteristics, heritage trees, and empty tree planting sites. Inventory data should be mapped and publicly accessible.

Strategy: Develop a long-range Urban Forestry Management Plan that considers future climate stressors and identifies a list of preferred trees and priority areas for public tree planting based on underserved or urban heat island characteristics, including along pedestrian corridors linking shopping and schools with neighborhoods.

Strategy: Identify funding sources to support tree planting on private properties and promote opportunities to the community. Require tree planting in new commercial and mixed-use developments and redevelopment, and in parking lots above a certain size.

LIVING AND THRIVING TOGETHER

BACKGROUND

Much of this Plan is focused directly on land and water use, including permitting, resource management, conservation, and supportive infrastructure. Throughout the planning process, the people of the USVI shared their hopes and frustrations about a wide range of issues that impact their daily lives, from education to healthcare to bureaucracy to policing, and so on. This Plan is broad but cannot address all the valid concerns heard throughout this process, focusing more on issues of land and water use, and related support systems. This section examines where issues around housing, the economy, heritage and culture, transportation, and recreation intersect with land and water use.

THE STATE OF HOUSING IN THE USVI

The USVI is experiencing a housing crisis in which the typical price of a home, whether for renters or buyers, is not affordable when compared with the typical incomes of residents. This mismatch between what people earn and what housing costs is a common story across the U.S., but it is particularly severe in the USVI. The need for more affordable housing options and housing types that better meet the needs of Virgin Islanders of all ages and incomes, such as lower income residents, middle-income residents, young adults, families, and seniors, has reached levels that are severely stressing communities, depleting the workforce, and generally stressing the islands' economy. In addition to the need for housing, how it is constructed and where it is built is becoming increasingly important in the face of recent hurricanes and climate change, the ability to provide water, increasing limitations on land, and the need for more walkable, mixed-use neighborhoods that can reduce dependence on automobiles. Finally, many existing homes in the USVI are in disrepair for a wide range of reasons (e.g., probate challenges, hurricane damage, general financial stress, etc.) and there is a tremendous need to provide tools to families that will facilitate reinvestment in these properties to maintain local ownership and provide homes for generations to come.

Housing Affordability

Housing affordability is a significant challenge in the USVI. The main drivers of the lack of affordable housing are the comparably low incomes of USVI residents, high costs of construction, limited availability of developable land, demand pressures from nonresidents, and high costs of homeowner's insurance and other financing challenges. In addition, given that most homes do not have access to public water and sewers, septic systems, water cisterns, and septage and water hauling costs add to their total housing expenses. Demands for housing from non-residents (recovery workers, pandemic nomads, and others), fueled by the short-term rental market and "work-from-home" trends, drive up prices, and the influx of new workers for recovery efforts also strain the housing market, especially the rental market.

Housing Resiliency

Much of the housing stock is vulnerable to hurricanes and other intense storms, as exemplified by the 2017 hurricanes, and these risks are expected to increase with climate change. The intersection of housing affordability and natural hazards came into sharp focus with the 2017 hurricanes. The impact on low- and moderate- income households reached far beyond 2017 with many families struggling or ultimately unable to rebuild. Challenges with relief administration, limited access to building materials, and stricter building standards created significant challenges for many property owners. Finding cost-efficient, resilient building (and re-building) techniques will be imperative for the USVI's future housing strategy.

COMP PLAN SPOTLIGHT: HURRICANE RESISTANT MODULAR HOMES

The term "modular home" or "prefab home" carries a cultural stigma, evoking images of trailer park living situations that suffer societal bias, associating the choice of living there with a lack of financial stability. While these associations are untrue and unfair to those who live in mobile home parks, they also completely miss the reality of the current housing industry. Modular homes can be part of the solution for both affordability and storm resiliency in the USVI.

The number of companies emerging in this marketplace is significant, offering a wide range of products including "tiny home" modulars on trailers, small single family homes, duplex configurations, and luxury custom homes. Importantly, modular homes are allowed in the USVI so long as they meet building code requirements, and many companies are building components designed to be attractive and exceed building codes in hurricane prone areas. The USVI should look to grow these design and fabrication businesses in the Territory. This will provide local economic opportunity but also ensure designs for modular homes are architecturally and culturally compatible.

Moving forward, perhaps through the Economic Development Authority (EDA), proactive discussions with modular home builders should occur, learning more about the needs of their operations and what it would take to attract more of this manufacturing to the Territory. Coordinated discussion between manufacturers, EDA, VITEMA, and DPNR could lead to a targeted strategy for on-island manufacturing.

Examples of Modular Homes.

Image credit: katanahouse.com (top); affinitymodular.com (bottom)

Housing Types

As noted above, while there is a need for some larger-scale multi-family buildings, the cultural preference of many Virgin Islanders is to live in single family homes and smaller housing types. However, existing zoning generally has districts that allow either single- or two-family homes or larger-scale multi-family buildings, with no opportunity for smaller housing types that fit somewhere in between. Three- and four-family homes, clusters of cottages on a single lot, townhouses, and even small-scale apartment buildings of 6-12 units, not to mention mixed-use housing (see *Mixed-Use Centers, Historic and New*) can be allowed in zoning districts in and around town centers and commercial centers and serve as a gentler transition to lower density residential areas.

Multifamily housing can be in cottage clusters or small-scale apartment buildings

The Probate System and Maintaining Family Ownership

An ongoing challenge in the USVI is how homes and properties are inherited from one generation to the next. Many property owners choose to leave their homes and properties to multiple relations without detailed instruction. Others pass away with no wills at all and only verbal instructions on inheritance. Either way, without clear legal documentation or a mechanism for transfer, these properties can get stuck in limbo, with no clear path to ownership. When this happens, these properties can fall into disrepair and are generally ineligible for grants or financing from FEMA, VIHFA, or banks until the ownership issue is resolved.

Many families need help navigating this situation and can be vulnerable to schemes that attempt to sell properties out from under them. Even before a property reaches the probate system, families often need help tracking down heirs, navigating difficult conversations about the best future for the property, and reaching consensus. After this point, many families need legal assistance to develop a trust that lays out the ground rules for common ownership. Additionally, the probate court system can be backed up with cases, so even a family with everything in order may get stuck in the courts

waiting for a ruling that will allow the executors of the will to deal with any assets left behind. Lastly, the legislation that governs probate issues in the USVI is incomplete and out of date when compared with the latest models and guidance. Legislative reform is needed. In summary, probate reform and direct assistance to families dealing with property transition are needed to ensure that properties stay in family control and that homes and buildings are renovated and available for future generations to come. Probate reform can help to keep affordable housing choices occupied and maintained, rather than empty and falling into disrepair.

Affordable Housing Production and Ownership Tools

The USVI could benefit from establishing small organizations and mechanisms that can facilitate the production and ownership of affordable housing. In many cases, establishing these mechanisms requires leadership in the civic sector, and the Virgin Islands government would look to support and partner with these groups. Tools for consideration include:

Housing Trust Funds - Housing trust funds are distinct funds established by city, county, or state governments that receive ongoing dedicated public funding sources to support the preservation and production of affordable housing and increase opportunities for families and individuals to access decent, affordable homes. Housing trust funds systemically shift affordable housing funding from annual budget allocations to the commitment of dedicated public revenue. While housing trust funds can also be a repository for private donations, they are not public/private partnerships, nor are they endowed funds operating from interest and other earnings.

As of 2024, there were 47 states with housing trust funds, the District of Columbia, Guam, and Puerto Rico, and more than 765 city and county housing trust funds in operation. They dedicate an excess of $3 billion annually to help address critical housing needs throughout the country.

Housing trust funds are extremely flexible and can be used to support innovative ways to address many housing needs. The model can work in virtually any situation. They have been created to serve small towns of about 1,000 people and the country's largest states. These funds are also very efficient. Many housing trust funds report highly successful track records addressing a wide range of critical housing needs.

https://housingtrustfundproject.org/our-project/about/

Community Land Trusts - Community land trusts (CLTs) are mechanisms for creating affordable homeownership units and maintaining the units as affordable over the long-term. They provide more affordable housing choices by removing some of the costs normally associated with purchasing a home, most notably the cost of purchasing the land. CLTs purchase, or are granted, land within a community to steward as affordable housing. Under the traditional CLT model, the land trust maintains ownership of the land and leases it out for affordable housing uses. This is typically done by selling the structure (whether a single-family home or a unit in a multifamily building) to an eligible buyer, along with a long-term ground lease (typically 99 years) that specifies the terms under which the home may be sold to the next purchaser. Under this model, purchasers own the building (or attached unit) and lease the land from the CLT. Owners typically pay a monthly ground lease fee, which covers administrative costs and costs associated with property ownership (such as property taxes). The fee can also fund a long-term property repair reserve. Most ground lease fees are low; often fees are less than $100 per month and sometimes as low as $1 per year.

https://localhousingsolutions.org/housing-policy-library/community-land-trusts/

Community Development Financial Institutions Fund (CDFI) - To support the emerging community development financial institutions, the Community Development Financial Institutions Fund, or CDFI Fund, was established by the Riegle Community Development and Regulatory Improvement Act of 1994 and is administered by the U.S. Treasury. The CDFI Fund's purpose is to promote economic revitalization and community development in low income communities through investment in and assistance to CDFIs.

CDFIs can be banks, credit unions, loan funds, microloan funds, or venture capital providers. CDFIs help families finance their first homes, support community residents starting businesses, and invest in local health centers, schools, or community centers.

The first step to accessing many of the CDFI Fund's programs is to create an entity that can apply for CDFI or CDE Certification. Although there are some exceptions, certification is the gateway to accessing the CDFI Fund's award programs.

www.cdfifind.gov

Community Development Corporations (CDCs) - CDCs are neighborhood-level, nonprofit organizations that implement community development projects ranging from the development of affordable housing and community centers to job training and health services. CDCs range in size and focus and are found in many, but by no means all, neighborhoods across the country. They often function as real estate developers, dealmakers, and intermediaries between community-based service providers, public agencies, and investors like banks, philanthropic organizations, and community development financial institutions (CDFIs). The most recent national survey of CDCs found that there were more than 4,600 nationwide.

CDCs are located in the low-income communities that they serve and operated by professionals with oversight from advisory boards that include neighborhood residents. The work of CDCs is primarily funded through state and federal grants, but the groups can receive funding through Community Development Financial Institutions (CDFIs), intermediary organizations, and philanthropic organizations.

https://www.buildhealthyplaces.org/sharing-knowledge/jargon/cdc-community-development-corporation/

MIXED-USE CENTERS, HISTORIC AND NEW

The USVI has a long history of mixed-use centers, population centers with mixed residential and commercial uses. On St. Thomas, Charlotte Amalie has for centuries offered opportunities for "city life" on the island, with homes perched on top of businesses in single buildings, and an array of different housing types and businesses all located together in a neighborhood. For many generations, this allowed people to live and work in the same building or at least within walking distance, and to have access to shopping, services, and schools. The same was true in the towns of Christiansted and Frederiksted on St. Croix and later in history with Cruz Bay on St. John. There are also more recently developed areas (over the past several decades) that offer opportunities for mixed-use in the future, creating new areas of commerce, living, and gathering.

The Benefits of Mixed-Use Centers

Mixed use centers—whether they are revitalized historic towns, re-imagined shopping centers, or newly developed—create a confluence of benefits by the way they are designed, the mix of uses, and the energy they create. Some examples of benefits include:

Getting Around - Mixed use centers obviously make it easy for people who live there or very close by to access everyday goods and services on foot. For people who arrive by car or public transportation, once they get there, they can experience the same level of accessibility. Well-designed mixed-use centers provide accessibility infrastructure like bike racks and transit stops to support different modes of transportation.

Cost of Living - Mixed use centers help to lower the cost of living because they drastically reduce, or even eliminate, the need for a car to do everyday activities. They also facilitate more affordable housing by allowing multiple uses (residential and non-residential) on a single property.

Mitigating Climate Change - In looking at land use policy, mixed-use centers are a vital strategy for mitigating climate change in the long term. Characteristics of mixed-use centers that contribute to climate change mitigation include:

- Reusing and expanding existing buildings instead of building with new construction materials.
- Taking advantage of existing infrastructure instead of requiring expansions.
- Easing development pressure on undeveloped lands.
- Allowing more people to walk, bike or take transit more of the time and reduce dependence on private vehicles.

Economic Resilience - For many years, traditional economic development initiatives across the Caribbean focused on attracting outside business and larger investors, and this work can be valuable. But more recent trends in economic development include "place based" initiatives. Place based development uses tactics that support and celebrate the assets of a particular location. This means lifting up existing businesses and supporting growth from within. Part of this approach also means thinking holistically about the physical, social, and business environment, which can include adaptations like mixed use development.

Because of the number and diversity of business operations in mixed-use centers, for example, these areas are more resilient to change and can provide a more productive (and affordable) space for local entrepreneurs. Further, the ability to create a "destination" gives mixed-use centers the advantage of layering commerce between industries like office, retail, and service (i.e., restaurants). Visitors tend to seek out the ability to "park once" and spend several hours on foot to access daily needs and entertainment.

Building Community - One of the hardest benefits to measure, but easiest to experience, is the sense of community created in mixed-use centers. Places where people can live, work, play, and gather have energy that feeds the well-being of individuals who can bump into old friends in a park or at the checkout line in a store. Busy places that are welcoming to a mix of generations create a feeling of safety and a sense of comfort that is indispensable in a world that has no shortage of worries. Building places conducive to community is an important part of fostering community.

A Cycle of Financial Health - The issues of housing affordability, walkability, and local economy can be inextricably bound together in vibrant mixed-use centers (see also Cost of Living above). For the people who live in these areas, these issues have a cyclical connection:

In the USVI, every piece of this cycle experiences barriers to success. While the government has implemented several programs to invest in local economies, the available tools and the resources to invest in those tools need expansion. Regarding housing choice, the available supply of housing is currently not large enough, nor diverse enough, to meet the needs of current residents. The USVI's transportation system is designed primarily to meet the needs of motorists, leaving few opportunities to walk or bike from neighborhoods to recreation or basic services. Aggressive investment in mixed-use centers can be a powerful tool for overcoming these barriers. The individual chapters on St. John, St. Croix, and St. Thomas examine some of the USVI's historic and potentially emerging mixed-use centers in greater detail.

COMP PLAN SPOTLIGHT: A CASE STUDY IN REVITALIZING HISTORIC MIXED USE CENTERS

During the Plan process, participants reminded the planning team many times to be careful of "bringing mainland ideas to the USVI." Conditions related to local culture, funding, staff resources, equipment, terrain, and many other conditions can make many mainland approaches to development a poor fit in the USVI. With that said, an initiative from Massachusetts is worth noting when it comes to revitalizing historic centers.

In Massachusetts a collection of industrial cities and towns experienced tremendous economic prosperity beginning in the industrial revolution and extending into the early half of the 20th century. These places were often called "mill towns" because the entire town revolved around one or more industrial mill complexes. At their peak, thousands of people worked in these mills, walked to work, and often lived in housing that was provided by the mill owner. As manufacturing moved away from the region, sometimes very abruptly, these mills closed and the local economy quickly descended into depression. Today, these cities and towns are referred to as "Gateway Cities" and have been an economic revitalization target in Massachusetts for approximately two decades. Over that time, Massachusetts has explored various programs and dedicated funding streams to find ways of facilitating redevelopment and increasing opportunity within the community.

A more recent initiative within the Gateway Cities program, that may be worth adapting to the USVI, is the Transformative Development Initiative (TDI). The TDI program is similar to the current VI-EDA Economic Enterprise Zone program in that it identifies stressed areas, which will have access to special incentives. The TDI takes that model to a much more robust level of implementation. Specifically, each TDI neighborhood has a dedicated coordinator whose entire job is to move revitalization efforts forward by adding capacity to communication, technical expertise, fund raising, and team coordination. In the USVI, this could be particularly effective as partnerships between government agencies, civic groups, property owners, developers are absolutely essential to advancing revitalization. Reflecting on the diaspora outreach performed as part of Vision 2040, there may be an opportunity to tap that pool of talent to access local TDI coordinators in a way that truly meets the needs of these communities.

Zoning for Mixed-Use

Much of USVI's Zoning Code uses techniques from the mid to late 20th century to organize and shape land use. Codes from this era are characterized by physically separating different uses (e.g., residential and commercial), enforcing rigid parking requirements, and paying far more attention to how the land is used as opposed to how it is designed. Because of this approach, the USVI's zoning code creates unnecessary barriers to developing new mixed-use areas, as well as redeveloping historic mixed-use centers. Contemporary zoning practices provide a more flexible approach to land use and parking, but greater scrutiny of design—especially for mixed-use centers. This approach allows for a more flexible response to market conditions, while ensuring the design of buildings and streets creates a vibrant, walkable experience for residents and visitors.

New form-based design standards can be established to proactively shape development in areas where mixed-use centers are desired, to ensure such development meets the community vision for vibrant, walkable, complete neighborhoods. The goal for such standards is to provide guidance on the basic design features that create successful mixed-use places, while being easy to use—not adding complexity to the review process. The standards should be informed by and emulate positive design features found in the Territory's historic mixed-use centers. Design standards could be approved and implemented as part of a form-based zoning district, such as the draft code created for Charlotte Amalie as a result of the Town's Blueprint (see page 136). Important elements of a form-based code generally include:

- Requirements for new buildings to be street-oriented (establishing a minimum and maximum front setback, so that the placement of future buildings is more predictable and will frame streets and public space).
- Requirements for off-street parking to be located to the side or rear of new buildings, and not in the front. Shared or reduced minimum parking requirements can be included to ensure that excessive requirements do not impede investment or new housing, or create unnecessarily large paved areas.
- Basic building design standards that promote walkability and active street frontages. For example, requiring a minimum amount of the building front façade to include doors and windows, and not blank walls. Consistent façade elements, such as a cornice at the top, and an expression line (line of awnings, colonnades, or other moldings/projections) to separate the ground floor from upper floors, can make settlements feel cohesive.
- Basic street standards that balance the safety and comfort of pedestrians, cyclists, drivers, and transit riders. Street trees and pedestrian-scaled lighting should be included in mixed-use areas. Where narrow right-of-ways exist, establish requirements for the front setback to include trees/landscape and extended sidewalk zones. For larger sites, require a network of connected streets, which could be done by instituting a maximum block size; pedestrian/step streets can meet this requirement where topography is challenging.
- Incentives for community spaces (ballfields/recreation, gathering spaces and civic buildings); for large lots, new green spaces can be required to accompany new development. The design of green space should be functional for stormwater treatment as well as for community use and gathering.

Top: Ocean System Lab, example of "top of shop" housing

Bottom: Mixed-use buildings in Frederiksted, St. Croix; new design standards can be informed by positive features in the historic building precedents

Several more modern commercial developments in the Territory have great potential for mixed use. Tutu Park Mall on St. Thomas and Sunny Isle Shopping Center on St. Croix, for example, could accommodate new mixed-use buildings or small apartment buildings – added to underutilized parking areas, or as existing buildings are renovated/ redeveloped. Such redevelopment would provide more customers for the local businesses and opportunities for people to walk to shops and services. These opportunities, and others, are discussed in the chapters dedicated to each of the main islands.

THE CONNECTION BETWEEN ECONOMY, PLACE, PEOPLE, AND THE ENVIRONMENT

Economic policies should create more economic opportunities that empower residents and improve quality of life. Creating a clear policy and regulatory framework for land and water use is fundamental to a dynamic business environment and economic prosperity. This framework acknowledges issues that are common across the Territory, as well as the different assets and opportunities on the three major islands. Understanding these different opportunities can help prepare sites for development. Sustainable growth opportunities in different sectors such as marine industries, agriculture/ agribusiness, specialized manufacturing, and tech-based industry can be targeted. This strategy will encourage economic diversification, which is essential for the local economy to withstand unexpected market changes and natural hazards. This is critical since the current economy is highly dependent on tourism. While tourism will likely remain a centerpiece of the USVI economy, supporting the evolution of the tourism economy to be more environmentally sound and align with local priorities will be important to maintain the positive economic contribution of visitors to the Territory.

Building 'Economies of Place' Across the USVI

The USVI boasts a collection of special places that can be identified on a map, many of which have a rich history and culture woven into landscapes, towns, trails, streets, vistas, and other features. These places and their histories inform the identity of local communities and create a sense of place that reaches back centuries. First and foremost, these places should be nourished and stewarded for the benefit of Virgin Islanders and many aspects of this plan speak to specific places that are central to the well-being and economic prosperity of residents. As these places come to thrive, they can be offered as an experience for visitors to learn about and appreciate local culture.

Top: Pedestrian walkway at historic waterfront warehouse, and Fort Christian tower, Charlotte Amalie, St. Thomas

Bottom: Fort Frederiksted, St. Croix

Incentives that Help to Maintain Local Ownership

One of the major goals of economic development is ensuring local residents and business owners can participate in government-sponsored initiatives. This can require identifying unintended barriers to participation. The land use implications of this type of critical assessment in the USVI will be felt largely in property ownership. Where economic development programs are unwieldy, confusing or onerous, many local business owners may find it challenging, or even impossible to participate, and their inability to benefit from those programs can eventually lead to losing ownership of property if the business is unable to thrive. As the USVI invests in business and development incentives, programs should be analyzed with at least the following questions:

1. Can USVI residents with the greatest needs qualify for grants, loans, and incentives? If not, how can the program eligibility requirements be changed?
2. If the eligibility requirements cannot or should not be changed, what additional support can be built into the programs to assist more USVI residents qualify?
3. Does the program facilitate outside investment in a way that leads to local displacement?
4. Are there terms connected to loans (e.g., timelines, matches, interest rates) that do not reflect the realities of making property improvements or business investments in the USVI?
5. Are monitoring and reporting requirements likely beyond the capacity of local business owners?
6. Should the program include dedicated technical assistance?
7. Does the legislative language associated within any program provide the flexibility for evaluation and improvement of the program overtime by the administering agency?

In conjunction with work to improve the probate system (see page 58), this type of regular programmatic assessment can help to expand local participation in economic initiatives and maintain local property ownership.

Ecological Health and Economic Viability

During the Plan process, people from diverse backgrounds agreed that the USVI's natural resources and its natural beauty were central to the well-being and economic sustainability of the Territory. The USVI is endowed with diverse natural features, including beaches, coral reefs, mangroves, and lush landscapes. These natural resources play an enormous role in the USVI economy, drawing visitors who are part of annual revenues exceeding a billion dollars each year. Fishing, diving, hiking, sunbathing and other outdoor activities are a massive economic engine, highlighting the economic need for strong protection and management of these resources.

Aside from the obvious economic impact related to the USVI's natural beauty, mangroves, beaches, and coral reefs serve as natural buffers against storms, protect coastal areas from erosion, operate as carbon sinks, and provide habitats for diverse marine life. These resources contribute to the unique beauty and ecological diversity of the islands and serve as key drivers of the local economy through visitation-related industries. It is essential to recognize the economic value of these ecosystems and implement sustainable practices to mitigate the adverse effects of coastal development, ensuring the long-term well-being and resilience of the USVI's economy and environment.

Supporting an Economic Agenda that Plays to Our Strengths

Many sections of this plan speak to the competitive strengths of the Virgin Islands, whether they are currently actualized like the amazing collection of natural resources, or whether they need assistance to meet their full potential like the historic centers. The Vision 2040 economic development plan provided guidance on important market sectors based on local strengths, including Agribusiness, Coastal/Ocean Resource Industries, Health Science, Light Manufacturing, Professional/Tech Services, Renewable Energy, Research & Development, and Cultural/Eco Tourism. This Plan promotes land use patterns and water use regulations that are conducive to the target industries identified in Vision 2040 and encourage long-term solutions that strengthen infrastructure to support these efforts.

THE CONNECTION BETWEEN CIRCULATION AND LAND & WATER USE

The connections between places on the islands and the transportation of people and goods is a critical consideration in developing effective land and water use policies in this Plan. The current roadway and marine transport systems in the USVI are complex and often inefficient and strained. During the planning process, residents, business owners, and agencies brought forward observations on every aspect of the system. Policies should recognize the connection between land/marine use and transportation systems and the need to support more diverse mobility options for people and more efficient delivery of goods and services throughout the Territory.

Walking and Biking

Walking and biking in the Territory can be a challenge. Over the decades, development has spread out across the islands in a very automobile-centric way. Streets (and the right-of-way) tend to be narrow, and many roads have just enough room for auto traffic in two directions and minimal drainage, leaving no room for sidewalks or bike paths. Topography is also a significant issue across the Territory, especially on St. Thomas and St. John. Steep, winding roads can be difficult to traverse on foot and dangerous given the auto traffic and lack of visibility for pedestrians and bicyclists. Despite these challenges, efforts have been made to address this situation. The Territory has adopted a Complete Streets ordinance and is working to expand the sidewalk network and improve pedestrian safety. Local non-profits are strong advocates and implementation partners for walkability and bikeability, both for sidewalks and paths in developed areas and for trails to access and enjoy the natural resources of the islands. Where appropriate, zoning updates can require space for street trees and sidewalks within front setback areas. Future efforts to increase walking and biking should focus on mixed-use town centers and commercial centers, important routes between those locations and area neighborhoods and schools, and low-impact trail networks through the Territory's natural landscapes.

COMP PLAN SPOTLIGHT: VIRGIN ISLANDS TRAIL ALLIANCE (VITAL)

In the organization's own words: "The Virgin Islands Trail Alliance Corporation (VITAL) is a non-profit organization in St. Croix, U.S. Virgin Islands, for the purpose of creating multi-use pathways across the island of St. Croix and expanding throughout the territory for the benefit of the people of the Virgin Islands. More specifically, VITAL was created to identify, plan, develop, build and manage (in some cases) a system of interconnecting multi-use pathways, green spaces, parks, walking paths, and biking trails in the Virgin Islands…

VITAL is a leader in this venture in the Territory [and] has gathered all trail builders, enthusiasts and organizations together. Community engagement is the key to the success of the multi-use pathway project because the community is the largest stakeholder. Proper construction, taking into consideration population density, traffic calming, road diets, parking, a community plan, protecting native species, and revitalization without displacement are VITAL's primary concerns. VITAL's progress depends on how quickly we can obtain funding."

VITAL has proven to be a formidable partner in efforts to increase mobility for people on foot or using bicycles. The group provides leadership in policy development (USVI Complete Streets Ordinance), has secured funding for and advanced design on over a dozen trail or multi-use path projects, and plays a hands-on role in trail maintenance that fills a significant need. Moving forward, government agencies should continue to support and actively engage with VITAL in their efforts to maintain and expand trail and complete street networks.

Transit

VITRAN provides bus service on St. Croix, St. John, and St. Thomas, as part of the Transportation Division of DPW. While VITRAN provides a critical service to the Territory, these services are inadequate to meet the needs of many residents and to help reduce traffic congestion. Over 95% of street lengths have no public transit stops. In addition, the USVI's population density does not meet the frequently cited minimum threshold density of four dwelling units per acre to have enough demand for hourly transit service, even in the highest density areas of the Territory, such as Charlotte Amalie and Christiansted. However, public transit service is the only means of transportation for many sectors of the population. Taxis and "safari buses" (most prevalent on St. Thomas) help to fill these gaps. However, in practice, the decision to pick up passengers tend to be at the discretion of drivers, with tourists and cruise passengers considered more lucrative than locals.

VITRAN bus on St. Croix

Roadway Design and Maintenance

As noted above, the right of way for many roads is narrow, and DPW often has limited space to work with to provide drive lanes, drainage, shoulders, connections to driveways, and other basic functions, let alone sidewalks, bike lanes, and street trees and plantings. Given these conditions, it is difficult to have roadway standards that are designed for travel safety, proper drainage, complete streets accommodations across all topographic and right-of-way conditions. In many cases, DPW needs the flexibility to do the best it can in severely constrained conditions. In other cases, DPNR must stand firm on not allowing development where it is sure to create public safety issues or considerable environmental damage. Other recurring issues related to roads include:

Driveways – A related issue is the need to better coordinate what is built on a property and how and when that property is connected to a public road with a driveway. When there are large driveway connections, there can be confusion between DPNR and DPW as to what has been approved and when. Clarification of permit operations across agencies, and clear communication with applicants is needed. Permits for property development and driveways can be more efficient to review concurrently rather than sequentially, to make sure that roadways can accommodate the development both in terms of traffic and stormwater runoff.

Roadway Construction Activities – Similarly, there can be frustration around road work needing to occur multiple times to accommodate various utility needs. DPW has frequent, regular meetings with all the major utilities to help coordinate their work and support their "dig once" policy to minimize disruption. However, often the funding for a project drives the timing, and it is difficult to coordinate so that multiple utilities are able to work at the same time.

Right-of-Way Data – There remains confusion throughout the Territory on the issue of rights of way and public versus private roads. There is not a single catalogue of rights of way in the Territory. Any time a right of way analysis is needed, it is done piecemeal, only examining a small span of roadway. The Territory needs a comprehensive map of all public and private roadways, and all these data need to be digitized. The Lt. Governor's Office is working on a comprehensive road naming effort that will provide a street address for every property in the Territory. This will be a major step toward better understanding the Territory's existing road network.

Another issue that can hinder proper roadway and driveway development is an insufficient number of local civil engineers with experience designing and reviewing plans according to existing DPW standards (e.g., stormwater standards). In addition, DPW often lacks staff capacity to monitor construction and ensure that things are built according to approved plans.

Private Roadway Maintenance – The issue of roadway maintenance was raised in many discussions during the Plan process, with a diverse set of examples. Private roads that are abandoned are a common occurrence in the Territory and, without proper documentation or legal mechanisms, these roads can quickly become a public safety concern and source of environmental damage.

Top: Wide, steep driveway, St. Croix

Bottom: Large, underutilized parking lot, St. Croix

Parking

Parking is an inconsistent, unplanned resource across the Territory, with certain areas severely lacking in parking and other areas accommodating too much. Daily dependence on automobiles increases the demand for parking spaces on residential properties. Particularly when extended families live together, most adults in the household prefer their own vehicle to meet their daily needs. Properties often have inadequate space to accommodate all these vehicles, and particularly on St. Thomas and St. John, the topography significantly limits or precludes on-street parking. On the other end of the spectrum, zoning for commercial development has required suburban style parking ratios for decades that have created "seas of asphalt" for parking lots that are rarely fully used. Not only is all this paving unnecessary, it can damage the environment with polluted stormwater runoff and contribute to flooding. As with roadway design, it is important that parking lot designs adhere to stormwater standards, and incorporate green infrastructure, trees, and plantings to capture and filter stormwater to minimize pollution. Many existing parking areas can be returned to green space or retrofitted to allow for water absorption.

USVI HISTORY AND CULTURE ARE WOVEN INTO THE LAND AND WATER

The history and culture of the US Virgin Islands can be experienced in the landscapes, art, and historic neighborhoods across the islands. The archaeological sites of indigenous and early people, the architecture of historic buildings, museums and cultural centers, and sites that carry rich oral histories all contribute to the heritage woven into everyday experience. Equally important is maintaining space for and supporting cultural events and performances and fostering new cultural opportunities into the future. Restoring, preserving, and cultivating awareness and use of these resources is an essential focus for land and water use in the USVI. This will contribute fundamentally to the ongoing economic success and cultural appreciation for generations to come.

In the USVI Government, the State Historic Preservation Office (SHPO), a division within DPNR, plays the largest role in preserving the Territory's architectural and archaeological heritage. The SHPO is responsible for updating and implementing the Territory's State Historic Preservation Plan, and many of the strategies in the Plan related to history and culture are derived from that plan. In addition, the DPNR Division of Libraries, Archives & Museums is responsible for archiving and curating important historic and cultural documents and artifacts in the Territory. Due to limited resources and the lack of trained professionals, many resources are endangered. Beyond these government institutions, there are dozens of non-profit and civic organizations, as well as more informal clubs and individual community elders, who possess a tremendous amount of knowledge that must be tapped to ensure land and water use occurs in a way that respects, protects, and promotes history and culture.

Top: Three Queens Statue, Charlotte Amalie, St. Thomas

Bottom: Indigenous Caribbean Village and Ceremonial Site at Columbus Landing, St. Croix

Regenerative Tourism

As discussed in other sections of this plan, while tourism is a huge portion of the USVI economy, and is likely to remain so, many participants in this planning process described how the current model of tourism can take more than it gives. Many tourists arrive on cruise ships, buy a few souvenirs, and then leave. Others head straight to a resort and stay there. This type of tourist experience can happen "anyplace" and visitors leave with no sense of place or understanding of history, culture, and heritage of the USVI. There are many opportunities to change this paradigm and provide tourism opportunities that connect visitors with the history, food, arts, and culture of the USVI. Land and water can be better used to provide activities that are attractive to visitors and locals alike—from farm tours, to classes on local cooking and arts, to guided historic walking tours, to mountain hikes, to snorkeling, to forest exploration, to food and beverage production tours, and more. The USVI can share and celebrate what makes it special.

Land Development & Historic and Cultural Resources

As discussed under *Making Better Land & Water Use* Decisions, this Plan calls for better performance standards for development throughout the Territory. This includes more consistent environmental and construction performance standards, making sure that new development and redevelopment are not negatively impacting stormwater volume and water quality, destabilizing slopes, or damaging abutting roads or neighbors. Performance standards for impacts on historic and cultural resources, should be included and consistently enforced. Checklists for development proposals should include considerations not only for historic structures on a site, but archaeological resources, traditional cultural uses of a property, important old growth heritage trees, etc. These resources should be preserved whenever possible or at a minimum their memories should be honored in the design of a site.

COMP PLAN SPOTLIGHT: CRUCIAN HERITAGE AND NATURE TOURISM (CHANT VI)

In their own words: "Crucian Heritage and Nature Tourism, Inc. (CHANT) is committed to preserving Crucian culture and heritage and promoting sustainable community development with a focus on tourism, traditional skills, and heritage-focused workforce development. Focused on this commitment, CHANT has built a network of world-class local tourism providers, created and supports educational outreach programs for schools and the public on Crucian Cultural and Heritage History and the island's environmental systems, and established and maintains a Crucian Cultural Center…CHANT supports the protection, conservation, mitigation, and restoration of our island's natural resources, helping to build environmental and, in turn, community resilience while reconnecting our community with nature."

This community-based civic group champions several initiatives in addition to those listed above. Projects and initiatives focus on using art as part of community revitalization, preserving culturally valuable building practices, and connecting youth to the power of Crucian history and traditional crafts. This Plan speaks to the need for re-orienting the current tourism industry in the USVI to one that elevates the history and culture woven into the natural and built environments across the Territory, The work of CHANT VI, in many ways, can serve as a model for building local communities as a platform for a richer and less extractive industry.

Support for Privately Owned Historic and Cultural Resources

The USVI government controls only a fraction of the historic and cultural resources of the Territory. Many of these resources are under private ownership. Historic structures can be very expensive to maintain and there is an important public interest in helping private owners keep these resources in good repair. Collectively, they are visual reminders of the past and physical ways to connect with history and culture. And from a practical perspective, many of them serve as family homes, places of business, or community spaces that serve the public. For this reason, it is critical that any funding or other assistance made available to help repair and maintain these resources be easily accessible to local owners, whether individuals, families, or non-profit organizations, and designed to ensure they can keep control over these properties. For more on this topic see *The State of Housing in the USVI*.

Collecting Data

A common theme throughout this Plan is the need to collect, maintain, and make accessible to the public a full range of data. This is very much true for historic and cultural resources. We cannot protect what we do not know. The USVI has an extensive but incomplete database of historic structures, archaeological sites, culturally significant landscapes, etc. Gaps in knowledge need to be filled in and all the information should be digitized. While certain archeological resources should not be mapped precisely (at least not for the general public) to ensure protection, most of this digital information should be made available to the public.

Securing Places to Archive and Celebrate USVI History

There is a tremendous need to invest in secure, physical spaces to preserve books, papers, objects, and artifacts of historic and cultural significance. There is limited archival and museum space throughout the Territory, and much of what exists is vulnerable to floods, storms, and other hazards. Much of this space exists in the Territory's public libraries, many of which are still closed to the public after the damage inflicted by the hurricanes of 2017. These storms underscored the risks of loss and damage on the islands due to climate change impacts, and the need to rebuild libraries and areas for public display that are better protected. Further, these spaces cannot simply be used to store and protect, but to display and celebrate USVI culture and history with the public.

Maintaining Space for Culturally Significant Daily Activities

Beyond tangible buildings, sites, and collections, there are many aspects of traditional culture that are important to preserve. In the context of this Plan, that means making sure land and water remains intact and accessible for these traditions, including gathering for social events, gathering food and materials for crafts, or fishing in traditionally accessible areas, to name a few.

VIRGIN ISLANDS CULTURAL HERITAGE INSTITUTE (VICHI)

In 2019, the USVI Legislature established within DPNR a Virgin Islands Cultural Heritage Institute. However, to date, no members have been appointed to this body and it is not funded or active. If this Institute can be activated, the members could be tasked with implementing many of the cultural and historical strategies in this Plan. The Institute is tasked with, among other things, preserving, protecting, promoting, supporting, revitalizing and disseminating Virgin Islands culture through educational grants and informational materials, organization of events and performances, establishment of cultural archives, and more.

AN EVOLVING RECREATION SYSTEM

Places dedicated to recreation, gathering, and passive enjoyment of nature, both on land and water, create a sense of community and provide essential services and health benefits to residents and visitors. A wide array of agencies and organizations are tasked with setting and enforcing policies, and establishing, operating, and maintaining these community spaces and resources, with a particular emphasis on seniors, veterans, and youth. Land and water use policies should establish sustainable funding sources, foster opportunities for collaboration, manage conflicting uses, and build a system of amenities that fosters public health, opportunities for physical activity, and community pride.

Bolstering the Territorial Parks System

After many years of planning, the USVI officially launched the Division of Territorial Parks & Protected Areas in July of 2023. This Division, under DPNR, assumes responsibility for managing and developing the Territorial Parks system and protected areas across the USVI. Its key objectives encompass the preservation of natural heritage, promotion of biodiversity, and facilitation of sustainable recreational activities within these regions through comprehensive conservation planning. Through the implementation of robust conservation strategies, the Division aims to protect the territory's rich biodiversity, lush landscapes, and pristine marine environments for the people of the US Virgin Islands. One of the Division's first major projects will be the creation of a Territorial Comprehensive Outdoor Recreation Plan or TCORP. This process will help the Territory determine the needs for both recreation and conservation and guide investments in recreational spaces and facilities and setting targets and priorities for additional conservation lands.

Top: Playground, St. Croix

Bottom: The public shoreline, an important part of the USVI recreation system

Public Access to the Shoreline

Public access to the shoreline is embedded not only in Territorial law but in the hearts and traditions of US Virgin Islanders. The territory's Open Shorelines Act mandates that all shorelines are open to the public from the low tide mark to a distance of 50 feet, or to the first point of natural vegetation or rocky outcrop, whichever is less. Nevertheless, actions by many individuals over time coupled with a lack of enforcement capacity and minimal recent investments have served to chip away at these rights. No new public accessways have been proposed for many decades, limiting the opportunities for public access to the shoreline from inland areas. Some businesses and individual homeowners have installed literal barriers where there should be public access, or else wrongly discourage the public from accessing the shoreline in front of their properties. DPNR staff often lack the time and capacity to keep track of official shoreline access points and ensure they remain accessible. Additionally, many property owners are interested in hardening their shorelines with sea walls and other types of armoring, squeezing the sandy beach and the public into a shrinking and diminished space. Maintaining public access to the shore may also require better regulations and enforcement for shoreline hardening, and changes to the Open Shorelines Act that protects the publicly accessible space as shorelines shift or erode over time due to climate change.

Open Space and Recreation Set Asides through Development

One common way to expand the portfolio of public or publicly accessible open space is to require or encourage set-asides from large developments. As discussed under *Making Better Land & Water Use Decisions*, variances, zoning amendments, and other relief from the zoning laws, including greater housing density, should only be granted under very specific circumstances and can leverage tangible benefit to the community that would not have otherwise been had. Set-asides for public parks or conservation land can be a legitimate exchange for such zoning relief.

National Park Service

The U.S. Virgin Islands is home to a number of federally protected parks, cays, marine areas, and national monuments, including properties overseen by the National Park Service and U.S. Fish and Wildlife. Relationships with the National Park Service are particularly significant, and often strained, on St. John (for more information on this topic, please see the *St. John* section of the Plan), but relations with the National Park Service are also important on St. Croix and St. Thomas. Ongoing conversations and relationship building between local leaders (the Governor, the Territory's Member of Congress, the Commissioner of DSPR and others) and the National Park Service are critical to ensuring that the presence of the National Park Service is something that enhances the quality of life for residents.

GOALS, POLICIES & STRATEGIES

GOAL 1: PROVIDE ACCESS TO GOOD AND HEALTHY HOMES FOR ALL VIRGIN ISLANDERS.

Policy: Reform zoning to encourage a broader range of housing choice at different price points, style preferences, and life stages.

Strategy: Consider allowing the conversion of existing single-family and two-family dwellings to up to four-family dwellings, including accessory dwelling units, if a property is able to meet performance standards related to parking, infrastructure capacity, etc. and the units are not used as short-term rentals.

Strategy: Identify appropriate districts for assisted living and other senior housing types, including multigenerational communities, along a continuum of care as seniors age. Districts where these are allowed should provide residents with easier access to shops, services, and health care.

Strategy: Define smaller-scale multi-family dwellings, such as three- and four-unit dwellings, townhouses, cottages clustered on a single lot, and small-scale apartment buildings, and permit them in zoning districts that serve as a transition from single-family and two-family dwelling neighborhoods to denser neighborhoods and downtown areas.

Strategy: Develop performance standards to help determine where taller (more than three stories) residential or mixed-use buildings may (or may not) be appropriate in terms of visual and physical impacts. Performance standards may include driveway design, roadway connectivity and capacity, transit access, walkability/bikeability, parking availability, topography that helps limit the perceived massing of a building, access to public water and sewer, etc.

Policy: Reform the probate system to enable families to continue ownership and investment in their properties.

Strategy: Dedicate funding to engage the services of attorneys and other experts to assist individuals and families to maintain their properties and unblock pending probate cases. Build on the existing services currently provided by organizations such as the VI Economic Development Authority and the VI Housing Finance Authority.

Strategy: Strive to make the probate system easier for individuals to navigate without a lawyer or legal fees. Amend probate laws to make it more difficult for families to succumb to forced sales of properties.

Strategy: Dedicate grants, forgivable loans, and/or low-interest loans to individuals or families so they can maintain and renovate their properties during and after the probate process. Make sure such funds are made available up front, rather than on a reimbursement basis, so that individuals and families with limited financial resources may utilize them.

Policy: Build and redevelop well-designed public housing that encourages a sense of community and provides important amenities.

Strategy: Over time, redevelop larger VI Housing Authority properties with climate-resilient design and amenities that provide residents with the support systems they need, such as outdoor play space for children and youth, communal kitchens and gathering spaces, community gardens, day care, and more.

Strategy: Continue to look for opportunities to purchase and renovate existing homes and apartments to add to the inventory of VI Housing Authority properties.

Strategy: Consider making larger VI Housing Authority properties available to a broader range of household incomes as the inventory

of VIHA homes increases, so long as lower-income households who need and want VIHA homes are adequately served.

Policy: Build capacity to permit and develop homes that are efficient, resilient to storms, and use vernacular building design.

Strategy: Coordinate with UVI and local trade associations to train and certify more building inspectors, and budget for hiring adequate building inspection staff.

Strategy: Develop a vernacular handbook to guide property owners and architects on traditional building design for the USVI, including the use of local and sustainable materials, passive cooling, water collection, etc.

Strategy: Pair building inspection and code enforcement with concurrent offers of grants, forgivable loans, and/or low-interest loans to property owners so they can maintain and renovate their properties up to these resiliency standards.

Strategy: Develop educational material that helps remove the cultural stigma associated with "modular homes."

Strategy: Develop island-specific pre-reviewed/pre-approved building plans (including modular homes) and offer streamlined approval for construction. Include site standards needed for the pre-approved building plan to get faster review and approval.

Strategy: Convene EDA, VITEMA, and DPNR with modular home companies to discuss how to remove barriers to installation and establish local manufacturing operations.

Policy: Explore innovative programs and funding mechanisms for increased levels of affordable home *production*.

Strategy: Form and/or expand existing Community Development Financial Institutions (CDFIs) in the USVI with the goal of expanding economic opportunity in low-income communities by providing access to products and services for local residents and businesses. A CDFI could fill important financing gaps for affordable housing development, home repairs, small business development, and more. (See *Support a Strong Economy that Serves the Residents of the USVI with Appropriate Land and Water Use Strategies* for more on CDFIs.)

Strategy: Support the establishment of at least one Community Development Corporation (CDC) in the USVI, and ideally one each on St. Croix, St. John, and St. Thomas.

Strategy: Consider establishing an Affordable Housing Trust on each of the major islands through existing and/or expanded real estate transfer taxes and/or other funding mechanisms to provide dedicated funding for construction or renovation of affordable housing. Establish advisory committees on each of the three major islands to advise the VIHFA on needed investments.

Strategy: Dedicate funding to provide forgivable loans and/or tax incentives to owners of rental properties for renovation and maintenance, in exchange for rent control of the property.

Policy: Explore innovative funding and financing mechanisms for affordable home *ownership*.

Strategy: Explore options for developing community land trusts on each of the major islands including, but not limited to, trusts managed by a government agency or quasi-governmental agency such as the VIHFA or by local non-profit organizations such as a community development corporation (CDC).

Strategy: Consider property tax reductions or rebates for properties where the improvements (i.e. the homes but not the land) are valued below a certain threshold and/or for properties that have been owned by family members for a minimum threshold of time.

GOAL 2: SUPPORT STRONG LOCAL ECONOMIES WITH LAND AND WATER USE STRATEGIES.

Policy: Pursue the creation of economies of place, creating neighborhoods and destinations with strong, local economic systems.

Strategy: Remove barriers and create incentives and support programs for the development/revitalization of vibrant mixed-use centers. (See more detailed discussion of mixed-use centers on page 61).

Strategy: Create form-based design standards to shape development in historic and new mixed-use centers. These can be adopted as part of new form-based zoning districts, such as the one drafted for Charlotte Amalie.

Strategy: Develop "Maker Spaces" (low-cost or free facilities) for small local craftspeople/manufacturers to allow individuals to produce goods to earn a living and that help incubate and grow potential businesses. These may be run by the government, or the government may provide grants or low-interest loans to non-profit organizations to run such spaces.

Policy: Tailor government initiatives to help maintain local ownership of property.

Strategy: Form and/or expand existing Community Development Financial Institutions (CDFI) to increase innovative lending options.

Strategy: Prioritize financial incentives and lending at all levels (from start-ups to mature firms) to locally owned businesses and businesses that guarantee living wage job opportunities for residents.

Policy: Target market-based initiatives to build on USVI's competitive and cultural strengths.

Strategy: Continue to pursue, assess, and revise initiatives related to the industry focus areas identified in *Vision 2040*.

Strategy: Continue the pursuit of greater food sovereignty. See Goal 2 under *Preparing for a Sustainable Future*.

GOAL 3: ELEVATE CULTURAL RESOURCES AND INSTITUTIONS ACROSS THE USVI WITH APPROPRIATE LAND AND WATER USE STRATEGIES.

Policy: Cultivate place-based tourism initiatives, in partnership with the USVI Department of Tourism and others, as part of a sustained economic development strategy.

Strategy: Support the VI State Historic Preservation Officer (SHPO) in its efforts to increase territorial awareness and appreciation of historic preservation and encourage appropriate treatment of cultural resources.

Strategy: Partner with, provide resources to, and empower local civic and non-profit groups to secure funding, provide technical assistance to communities, and manage projects that will bolster place-based tourism.

Policy: Ensure proposals for land development account for and enhance cultural resources, including using traditional and culturally recognized building and site design.

Strategy: Build historic and cultural performance standards into the development review process, with considerations not only for historic structures on a site, but archaeological resources, traditional cultural uses of a property, important old growth heritage trees, etc. Where preservation is not possible, find ways to visually promote and celebrate the history and heritage of the site.

Strategy: Improve interdepartmental review to ensure that SHPO determinations are recognized and enforced.

Policy: Develop incentives and resources, including funding and financing, for preservation and rehabilitation of privately-owned historically significant structures.

Strategy: Explore the creation of special revolving funds for private archaeological and historic preservation restoration projects. Establish monitoring protocols for these funds to ensure that program standards are enforced, as well as penalties including claw back of funds for violations.

Strategy: Lobby financial institutions and businesses to provide their dedicated community service grants to non-profit historic preservation organizations.

Strategy: Lobby financial institutions to provide low-interest loans to owners of historic buildings used for commercial and residential purposes.

Policy: Target land preservation to culturally significant sites that are not protected.

Strategy: Increase the capacity of the SHPO (e.g. funding, technology, staff) to identify significant archaeological and historic properties within the Territory through an ongoing systematic survey and identification program and work in partnership with the Division of Territorial Parks & Protected Areas to prioritize investments in the preservation of these resources.

Strategy: Identify, map, and inventory burial sites/graves and ensure these are flagged and respected through the development review process.

Policy: Provide resources for clearly documenting and mapping historical and cultural resources, with the ability to overlay natural resources and infrastructure.

Strategy: Develop, in coordination with the USVI Public Library System, a collections management plan for the archaeological and scientific collections that are maintained by the SHPO, including the designation of secure archive buildings on all three islands.

Strategy: Use technology (GIS, computer-based curation system, digital records, etc.) to facilitate research, preservation initiatives, and information exchange, including the recording of people with local knowledge that should be preserved for posterity.

Strategy: Explore policies and agreements that foster continued or renewed culturally significant daily activities like gathering food, gathering materials for crafts, or fishing in traditionally accessible areas.

Policy: Provide incentives and resources to preserve historic sites open to the public and develop museums and educational activities for adults, youth, and future generations alike.

Strategy: Seek funding and legislative support for the development of a curation and museum facility to permanently and safely store and highlight the archaeological and scientific collections maintained by SHPO.

GOAL 4: CONNECT PEOPLE TO EVERYDAY NEEDS IN A SAFE, ACCESSIBLE WAY.

Policy: Increase walking and biking safety and opportunities prioritizing commercial and mixed-use areas and town centers.

Strategy: Develop a sidewalk expansion and maintenance plan in priority areas with a schedule to address new sidewalks, maintenance needs, safety features (e.g., crosswalks), gaps, and accessibility.

Strategy: Explore and plan a comprehensive network of pedestrian and bicycle infrastructure that connects these priority areas with trails and other path networks. Coordinate implementation through the Territory's Complete Streets policy and engage with VITAL and other key stakeholders.

Policy: Invest in VITRAN to support regular, reliable, and affordable service that better connects jobs, commercial centers, schools, and residential areas, including service between islands.

Strategy: Evaluate VITRAN routes and consider ways to create shorter loops to service localized areas during peak times.

Strategy: Formalize more permanent bus routes that can be used by locals and tourists alike, with regular schedules that run every day, including evenings and weekends, and can be tracked in real time online or on an app. Work with cruise ship companies to fund additional bus runs when ships are in port.

Strategy: Evaluate opportunities for VITRAN efficiency improvements, such as signal prioritization for buses and real-time schedule updates.

Strategy: Review potential for enhanced and more affordable inter-island transportation, including for USVI residents, commuters, tourists, businesses, and others.

Strategy: Consider opportunities to coordinate the VITRAN network with other transportation modes, such as water transport, Safari Taxis, electric bikes, and other rideshares, and provide more space to travel with personal bicycles.

Policy: Ensure that transportation and roadway planning, construction, and maintenance policies respond to the specific needs and conditions of each island.

Strategy: Continue to evaluate, implement, and revise as needed island-specific transportation approaches identified in other previous planning efforts, such as the *2014 United States Virgin Islands 2040 Comprehensive Transportation Master Plan* and the *USVI Hurricane Recovery and Resilience Task Force Report 2018*.

Strategy: Update analyses and proposals from the *2014 United States Virgin Islands 2040 Comprehensive Transportation Master Plan* to respond to current conditions and needs, including better and more consistent lane striping, guardrails against steep slopes, street lighting, etc.

Strategy: Explore opportunities to develop stricter road hierarchies and designate routes for specific types of vehicle traffic to keep regular truck traffic out of residential areas and other sensitive zones. Roads in areas with high truck traffic should be constructed and maintained to industrial road standards.

Policy: Clarify the responsibility for designing, building, and maintaining both public and private roads, streamline the process for repair, and coordinate with utility improvements.

Strategy: Integrate planned road construction, utility improvements, and other infrastructure plans into a comprehensive capital improvement plan or other document to improve coordination.

Strategy: Continue to develop and refine coordination policies and procedures across agencies for road repair and infrastructure planning. Build on DPW's "underground utility coordination group" that meets monthly with public and private utility partners (WAPA, WMA, Liberty, Viya, ODR, etc.) to discuss when underground utility work is taking place.

Strategy: Explore options for joining the national 811 call-before-you-dig system. Anyone who plans to dig could call 811 before digging to request that the approximate location of buried utilities be marked with paint or flags so that no one unintentionally digs into an underground utility line.

Strategy: Ensure DPW and DPNR are fully staffed and trained to understand all relevant roadway and driveway standards and can review plans and conduct inspections during construction to ensure compliance.

Strategy: Issue a solicitation for a team of certified third-party peer reviewers who are trained to supplement plan review and inspection services for DPW, DPNR, and other agencies.

Strategy: Invest in an analysis and catalog of all public rights of way and public and private streets in the Territory and then digitize the information. Build on the street address project currently underway through the Lt. Governor's Office.

Strategy: Explore options for legal mechanisms that would allow DPW and DPNR to enforce the long-term maintenance of private streets and roadways.

Policy: Explore options for parking reform and enforcement specific to each island to ensure adequate parking where needed and avoid excessive parking requirements.

Strategy: Continue to require and enforce adequate parking for residential development based on the size and type of the homes. Develop a policy for reducing these requirements with performance standards related to reuse of historic buildings, access to transit, availability of sidewalks and bikeways, proximity to mixed-use town centers and shopping areas, etc.

Strategy: Develop and continually update a parking strategy for historic town centers that provides for and manages a shared public parking supply to support walkability and access to commercial services.

Strategy: Explore opportunities for multi-purpose parking areas that can also provide benefits such as spaces for community events, water storage, solar panel canopies, etc.

Strategy: Explore opportunities for shared parking lots or garages for commercial areas, connected to businesses by clear walking and biking paths and/or shuttle service.

Strategy: Explore options for installing parking metering infrastructure in high demand areas.

GOAL 5: CREATE A SUSTAINABLE SYSTEM OF PUBLIC RECREATION AND OPEN SPACE THAT FOSTERS OPPORTUNITIES FOR FUN, PHYSICAL ACTIVITY, AND ENJOYMENT OF NATURAL RESOURCES.

Policy: Continue to develop and maintain an accessible, ecologically healthy, and biologically diverse Territorial Park system based on data driven decisions and concrete needs assessment.

Strategy: Continue to bolster the capacity and clarify the role of the Division of Territorial Parks and Protected Areas (TPPA).

Strategy: Complete and obtain approval of the Territorial Comprehensive Outdoor Recreation Plan to become eligible for federal funding to acquire land for conservation or recreation, develop new recreation facilities, and maintain existing facilities.

Strategy: Use the needs assessment of the Territorial Comprehensive Outdoor Recreation Plan as a baseline to address recreation needs of the community, including for those with disabilities, and develop benchmarks to measure progress.

Strategy: Identify parcels with potential to create parks for neighborhoods that need them.

Strategy: Identify and conserve parcels with high value for environmental protection or preservation of cultural/historic resources.

Strategy: Build capacity of the Department of Sports, Parks, and Recreation to keep parks, beaches, recreation areas, playgrounds, and other facilities clean, safe, and welcoming for all users.

Policy: Preserve and improve public access to the shoreline in areas not designated for strict conservation due to environmental sensitivity.

Strategy: Ensure that proposed development or infrastructure projects enhance shoreline access.

Strategy: Find opportunities for new public access ways from inland to the shoreline and, where possible, along the shoreline to protect and connect existing access ways, beaches, parks, boardwalks, and other public spaces.

A PLAN FOR ST. JOHN

ISSUES & OPPORTUNITIES FOR ST. JOHN

St. John is the least populated of the three major islands in the USVI, driven by the fact that it is only 19 square miles in land area, has a mountainous topography with limited flat lands, and the National Park Service controls nearly 60% of the island's area. This situation has placed St. John in a structural disadvantage in many ways. Despite having the same needs (albeit for a smaller population) and facing the same challenges (sometimes at greater scale) as the other islands, St. John does not have the same level of access to services nor the same level of representation in important power structures. For example, St. John is combined with St. Thomas in terms of political districts and the community finds itself lumped in with St. Thomas on some issues where it would benefit from separate consideration. For example, zoning changes for St John are decided by the 15-member USVI Legislature, with only one at-large member specifically representing St. John. Despite these challenges, St. John maintains a strong sense of identity in the larger USVI community with a tightly knit community, rich cultural and historic resources, and internationally recognized beaches. Some of the opportunities and challenges faced by St. John related to land and water use are discussed on the following pages.

"...it's essential that residents share a common vision of the community we want to create for ourselves. That common vision must give due consideration to the relationships between individuals, institutions, and the community. Absent a common vision among St. John residents, we will perish."

—Plan Process Participant

Cruz Bay

Cruz Bay is the largest population center on St. John and is most easily identified by the experience of Cruz Bay Town, the island's center for cultural events, tourism, and commerce. With everything Cruz Bay Town has to offer, it still faces many challenges. Recovery from Hurricanes Irma and Maria (2017) remains very much at the forefront of community life. Many buildings sit in disrepair and government buildings remain damaged. As rebuilding efforts continue and land is re-purposed, local non-profit Love City Strong recognized the need to provide residents a voice to share wants and needs for town, so that near and long-term development and reuse can support a more resilient Cruz Bay. The organization sponsored an intensive community planning process in 2023-24. The document that emerged from this process provides a valuable resource for this Plan and an example of how focused area planning can be used as a platform for building more resilient communities.

Hurricane Irma recovery, 2017

View of Cruz Bay from Lind Point Trail (top)
Existing conditions, Cruz Bay Town (bottom)

COMP PLAN SPOTLIGHT: PLAN CRUZ BAY*

In June 2023 St. John residents participated in a design charrette to share ideas and hopes for Cruz Bay. During this time, the planning team set up a design studio in town and hosted a series of interactive workshops, meetings, and planning sessions. By working on-site, Plan Cruz Bay was created in real time, in public, with continuous opportunities to share and gather community input. The charrette provided a welcoming forum for creative ideas and encouraged immediate and ongoing feedback loops between planners, stakeholders, and the community. Most importantly, it allowed everyone who participated in the process to be a mutual author of the plan, shaping one voice for the future of Cruz Bay. Plan Cruz Bay is the result of over 300 St. John residents sharing ideas and coming together to create a plan for their town.

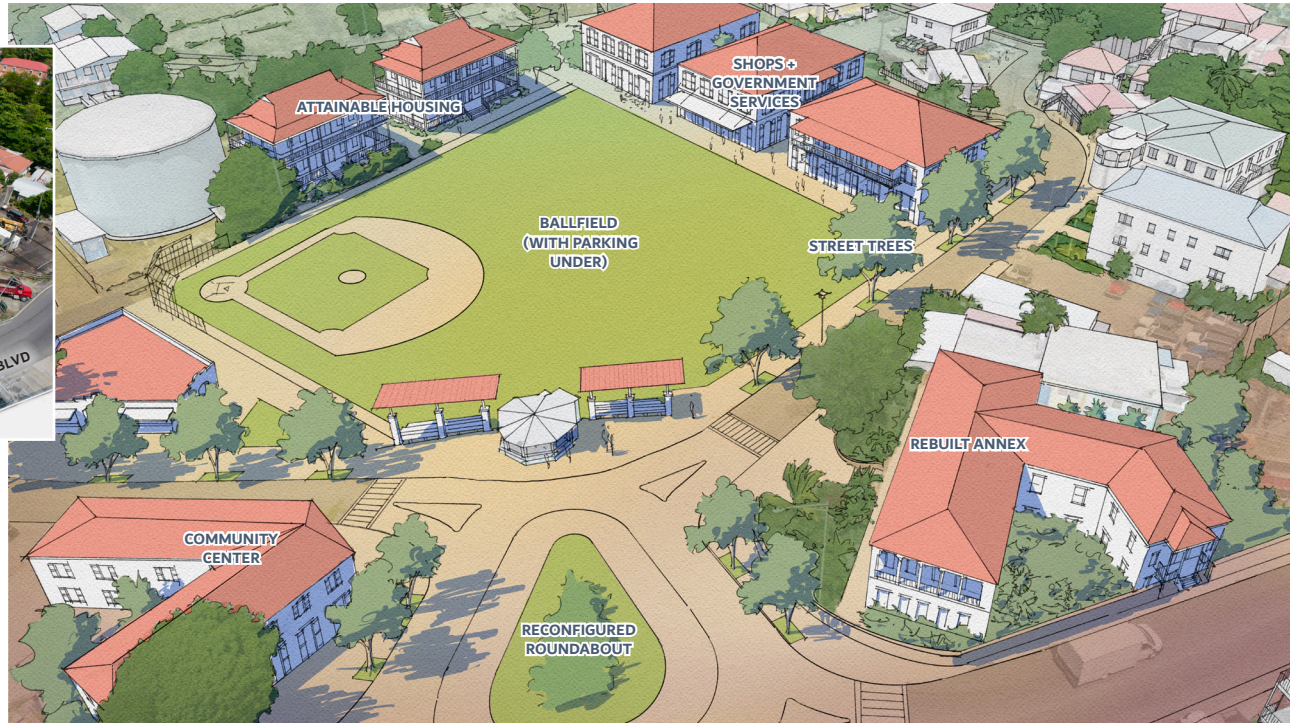
Common themes that emerged as important to the community included:

- Highlight and celebrate the culture of the community.
- Make streets walkable public spaces
- Improve all forms of mobility
- Redevelop government property to serve community needs
- Create a restorative, resilient Cruz Bay Town

Outcomes of the charrette process are captured in the full Plan Cruz Bay report and include detailed visions for the study area as a whole with more focused visualizations for redevelopment of the Julius E. Sprauve (JES) School site, improvements along North Shore Road, and revitalization of Powell Park. This CLWUP embraces the vision set forth by Plan Cruz Bay, acknowledging this document will be used as guidance for future land use decisions in this area.

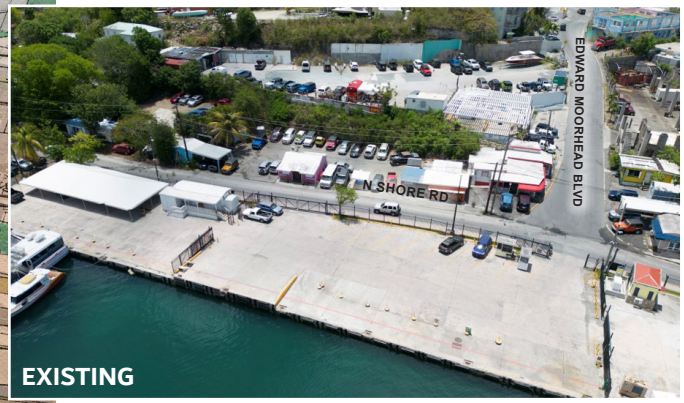
*Much of this text is adapted directly from Plan Cruz Bay project materials.

Hands-on design session (top) and community walking tour (bottom) during the Plan Cruz Bay charrette in June 2023.



Above: Existing Conditions, Julius E. Sprauve (JES) School site

Right: One of several visualizations for the redesign of the JES School site, featuring a restored ball field above parking and stormwater managment features, with a variety of housing options, shops and government offices in a mixed-use setting.



Above: Existing Conditions along North Shore Rd.

Left: Visualization of potential site redesign, including a publicly accessible waterfront, improved pedestrian facilities, a public gathering space and vendor's plaza, and space for shopfronts, offices and residential units.

Post-Transfer Neo-Vernacular Architecture and Cruz Bay's Historic District

A focal point of Plan Cruz Bay is the Cruz Bay Town Historic District, one of four official Historic Districts in the USVI. What makes this district unique is the architectural focus. Unlike the European styles prevalent in the other districts on St. Croix and St. Thomas, the visual identity created by the streets and buildings emerged from a much more recent era as described by historian David W. Knight Sr.

With this rich and unique historic resource on display throughout Cruz Bay Town, the Historic District represents an important tool for preserving important structures, maintaining an important element of cultural identity, and elevating the role of local history for the tourist experience. At the time this Plan was drafted, the Cruz Bay Town Historic District had not adopted formal architectural controls, but the town intends to adopt these controls in the near future.

Above: The Cruz Bay Town Historic District (shaded in red) and Plan Cruz Bay study area (in dashed outline).

To the modern eye, the simple, time-worn vernacular cottages and aging colonial-era buildings of Cruz Bay began to appear passé or obsolete. For those who could afford it, cinderblock and concrete, reinforced with steel rebar, soon became the preferred building materials of the day. With this shift in construction practices came a new architectural style influenced by a somewhat stark World War II-era United States aesthetic, which in the Virgin Islands often incorporated Latin-American (primarily Puerto Rican) inspired flourishes such as cast-cement balustrades, decorative metal grillwork, and bright paint colors. It was during the post-Transfer period of transformation and renewal, between the late 1940s and 1960s, that many of the buildings in the Cruz Bay Town Historic District were either significantly modified or first created. Depending upon the skills, financial resources, and design sensibilities of the individual owners, the buildings constructed or updated during this era reflect a merging of traditional Colonial West Indian and mid-20th century American-modern architectural design and building practices. The resulting somewhat utilitarian character of these buildings might best be summarily categorized as Post-Transfer Neo-Vernacular Architecture.

—Excerpt from *"What all should know about the 'Cruz Bay Town Historic District'" November 29, 2018, The Virgin Islands Daily News*

Example buildings/architectural style of historic Cruz Bay. Elroy Sprauve's house and once the site of St. John's first bank (top); Albert Sewer's Cut-Rate Store in Cruz Bay Town (bottom). Images from St. John Historical Society image library.

Coral Bay

Coral Bay was a focus of European colonial efforts as England, Spain, and Denmark vied for position in St. John in the mid 1600's through the early 1700's. The Danish would eventually lay claim to the area and established a very small fortification overlooking the bay. In the years that followed, agriculture was not particularly productive, and Coral Bay did not receive the same level of development pressure as Cruz Bay, neighboring St. Thomas (particularly Charlotte Amalie), and the highly productive agricultural operations in St. Croix. The area did maintain a cohesive community and Coral Bay is now home to a small number of businesses, mostly by the coast, and surrounding rural residential neighborhoods. Coral Bay is the most remote community in the USVI today, requiring 25 minutes of travel on narrow winding roads from the ferry terminals of Cruz Bay. The secluded nature of the community has made it a popular destination for tourists and neighborhoods feel some of the pressures often associated with transient rentals including noise, stress on water infrastructure, not meeting expectations related to everyday goods and services. The bay is a popular place to anchor and has experienced pressure for marina development, elevating discussions about what scale of land and water use development are appropriate for the area and what infrastructure would be needed to support a future vision.

Locally, a significant portion of the Coral Bay community engages with and relies upon the Coral Bay Community Council (CBCC) for leadership on issues related to land and water use. Their watershed approach to planning for the health of Coral Bay resources is consistent with the overall approach put forward by this Plan. Additionally, significant tracts of land are held by ancestral families who must be directly engaged for any decision making related to infrastructure development and land and water use. In recent years, large-scale proposals for marina facilities have come forward at varied levels of detail, raising questions about the appropriate scale of marina development in the area (both for water facilities, and potential adjacent land-side development that could accompany them) and the types of infrastructure improvements that would help frame future development and add resiliency to the area.

The Small Docks Initiative seeks to increase waterfront access at a scale that fits current conditions and the community vision. Above, the historic town dock in Coral Harbor. (Image credit: Greg Guannel)

Right: Potential future conditions along Coral Bay Road, showing the transformation of this segment of the road to a pedestrian/bike trail, and additional destinations in temporary structures compatible with the location in the storm surge zone.

KEY IDEAS ILLUSTRATED

- **a** In areas vulnerable to storm surge, new structures can be temporary or have floodable ground floors
- **b** If vehicular traffic is directed to a new road further inland, portions of Coral Bay Road can become a pedestrian/bike trail
- **c** Restore the natural edge
- **d** Provide pedestrian waterfront access points

As part of the Plan process, the planning team held a Town Hall meeting in Coral Bay to talk about these issues and start laying out ideas on paper. The meeting started with a presentation of the "lay of the land", highlighting areas of steep slopes, water flow and storm surge vulnerability, and discussion of how future development can be informed by this framework. Map sketches and action items related to the Plan's guiding principles were then discussed by community attendees and documented and help to inform the policies in this plan. Highlights from the community discussion are labeled on the map. These ideas can also be used as a baseline for ongoing implementation discussions and a reference for the community.

Coastal resiliency and watershed planning, including consideration of areas susceptible to storm surge and flooding, need to be part of future visioning and planning/prioritization of infrastructure improvements. As discussed earlier in the Plan, the USVI should continue development and implementation of watershed planning initiatives and use them as a guide to policy and development standards for public investment and private development. There is a desire to build back government and community services here (particularly those lost during the 2017 storms) to support local life. Building on steep slopes, and flooding on the flatter lands closer to the water's edge, present challenges that can be addressed through development standards. Within the storm surge area, temporary structures or buildings with floodable ground floors will be resilient to future storm events; beyond the surge area, buildings with raised finished floors can accommodate new housing, community spaces and government/ commercial services. Areas with a preference for mixed-use also overlap with land that is largely undeveloped today, further illustrating the need for strong performance standards and higher permit scrutiny for issues like stormwater management, flood protection, and water quality protection.

IDEAS FOR CORAL BAY

a Create museum/visitor center at historic building site at school property.

b Increase public waterfront access (boardwalk/pedestrian access points) and create dock areas for smaller-scale vessels.

c Re-route vehicular traffic on a portion of Coral Bay Road away from the waterfront, which would increase resiliency and allow the existing street to become a waterfront trail connection.

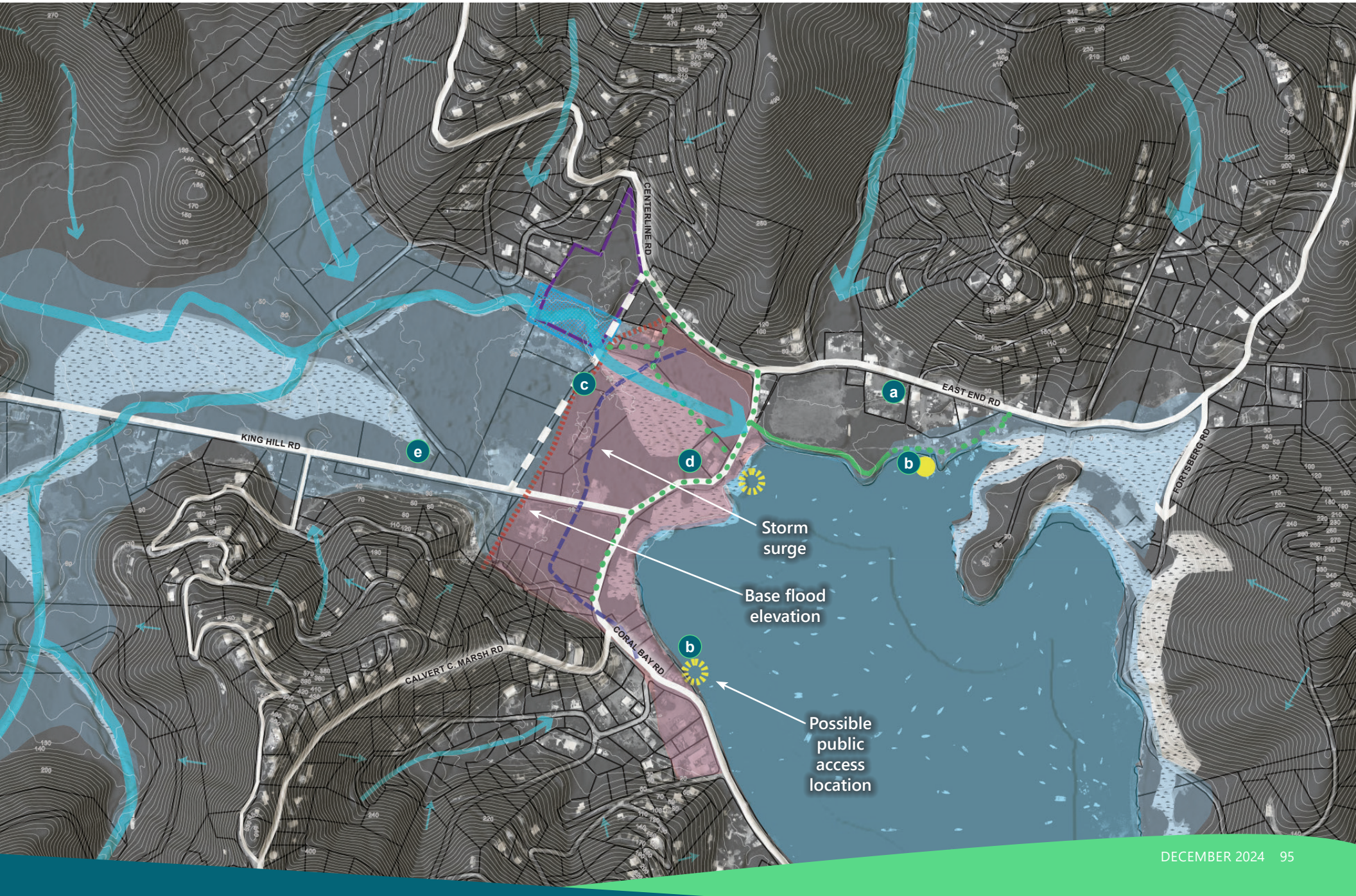
d Encourage commercial and retail uses in temporary pop-up structures in areas vulnerable to storm surge.

e Include potential for development that provides economic opportunity and services for locals, such as light industrial / maker spaces on King Hill Road.

General ideas:

- Include community services and improve accessibility to commercial needs in new development.
- Include more affordable housing in Coral Bay within flat areas of valley (avoiding the floodplain).
- Introduce infrastructure improvements to better support small-scale local business investments.
- Allocate space for more community facilities (needs for police, fire, community center, satellite health clinic, senior center, playground, public restrooms, affordable housing, pump out station, and more).

Below: Framework map for the Coral Bay focus area, showing the general path of water flow from higher elevations, and highlighting areas most vulnerable to flooding and storm surge.

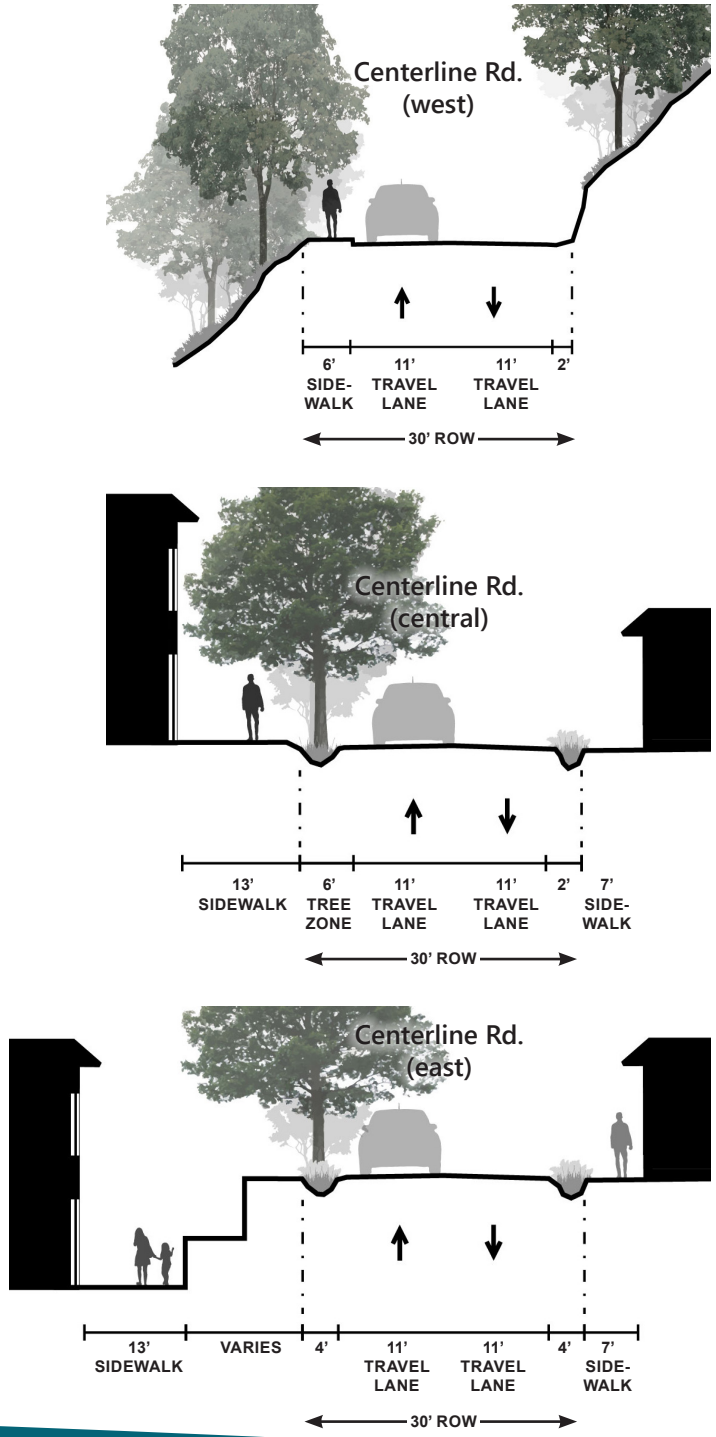


Susannaberg / Centerline Road

Centerline Road is the primary vehicular route across St. John and is a vital connection between Cruz Bay and Coral Bay. The two-lane road follows the natural topography of the island, winding through the National Park. Today, the road is surrounded by lush vegetation and features a VITRAN public bus route. Walking is difficult along much of the corridor, with limited sidewalks in a narrow 30' wide right-of-way.

One of the primary destinations along Centerline Road is the Myrah Keating Smith Community Health Center in Susannaberg, which provides health care services for the entire island. In recent years, a mix of business and industry has emerged around the health center including light industrial businesses, a new gas station, and a mix of restaurants. Some community members expressed interest in seeing this area continue to evolve into a new mid-island mixed-use center. As storm damage to existing health clinic buildings is repaired, a greater mix of uses could also be added to that site, such as medical offices or senior housing. As a new school building is constructed nearby to the east, the area could become desirable for new affordable/ workforce housing.

Sketches developed as part of the planning process provide a framework demonstrating how the area could grow in the future, to include a greater mix of uses with improved pedestrian access. Form-based development standards can specify that new buildings be oriented to face streets to support walkability; and new sidewalks/trails included on the street, where space permits, and/or within front setbacks. In addition, new green spaces that accompany future development can be designed to retain water here, to reduce downhill flooding.

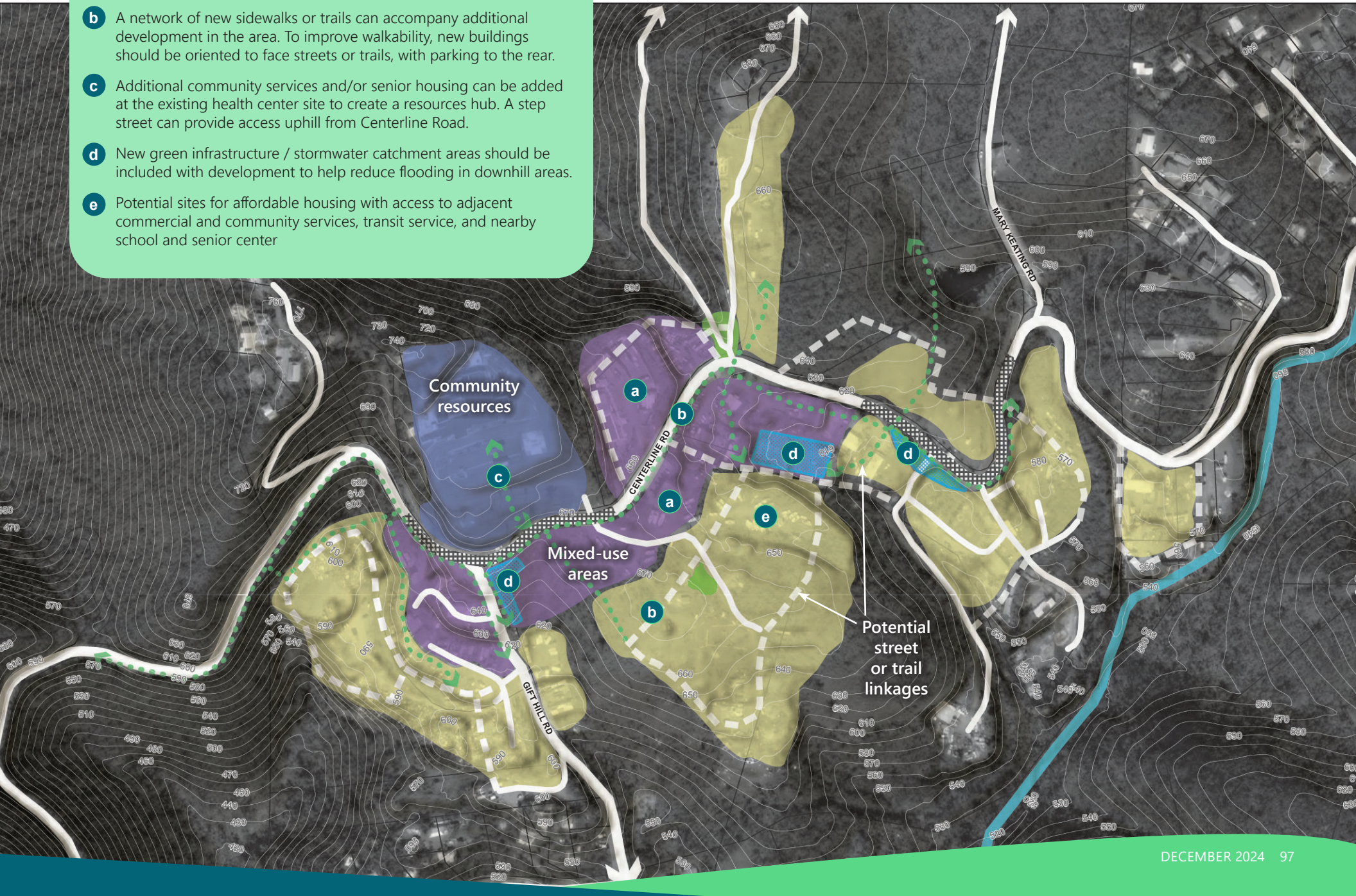


Right: Pedestrian safety and comfort along Centerline Road can be greatly improved with new connected sidewalks/trails. These cross sections explore what is possible within the 30' right-of-way in areas of steep slope, and what is possible within front setback areas where new buildings may be added to the center/east of this focus area.

IDEAS FOR SUSANNABERG

- **a** Potential sites for a mixture of uses along Centerline Road, to create a new mid-island center in Susannaberg.
- **b** A network of new sidewalks or trails can accompany additional development in the area. To improve walkability, new buildings should be oriented to face streets or trails, with parking to the rear.
- **c** Additional community services and/or senior housing can be added at the existing health center site to create a resources hub. A step street can provide access uphill from Centerline Road.
- **d** New green infrastructure / stormwater catchment areas should be included with development to help reduce flooding in downhill areas.
- **e** Potential sites for affordable housing with access to adjacent commercial and community services, transit service, and nearby school and senior center

Below: Framework map for the Susannaberg focus area. Future development in this area could be a mix of uses, including community services, industry, commercial and residential, connected by a network of streets and trails



Incentives for Property Investment

The USVI Economic Development Authority (EDA) offers incentives for investment in the USVI's historic centers with its Enterprise Zone Commission (EZC) program. This program is geared specifically for properties that are "blighted" or "distressed," looking to revitalize areas that were once vibrant but have suffered economically. While programs with this focus are important, the fact they do not apply to a place like Cruz Bay (which is not economically distressed) highlights an important gap in the landscape of economic assistance. According to discussions with residents and property owners, Cruz Bay has one of the highest rates of local property ownership in the Territory relating to a commercial/tourist center. As with many properties with long-time family ownership, owners have most of their wealth tied into the property and do not have access to large sums of capital that would allow for restoration and upkeep. By statute, EDA does have the ability to establish Commercial Zones under the Enterprise Zone program (Title 29, Chapter 19, Section 1017). This program has never been utilized and may be a useful tool for a place like Cruz Bay upon further investigation. Regulations for any revived Commercial Zone on St. John should be drafted in a way to prioritize local land and business owners and ensure that large sums of money are not needed up front for locals to utilize the Commercial Zone incentives.

The National Park

The presence of the National Park on St. John continues to be a major attraction for visitors, covering over two-thirds of the island area with thousands of acres of natural lands. From the perspective of protecting natural resources and the ecology of St. John, the National Park can be seen as a valuable asset. For many residents, however, the presence of the National Park has sparked considerable debate on a range of issues and has been the subject of several contentious community meetings. Many leaders, including the USVI Senate Representative, continue to advocate for policies, practices, and legislative reforms that will improve these issues. Examples of issues raised by residents include:

- There is ongoing dispute over ownership of selected land inside the park boundaries. The process to resolve these disputes can be onerous for St. Johnians.
- Taxes levied on ancestral land holdings are disproportionately high compared with contributions from the National Park.
- Many ancestral lands, while actively taxed, are land-locked and roadways for access are not passable.
- Communication from the Park Service to residents has historically been poor, re-enforcing mistrust from residents.

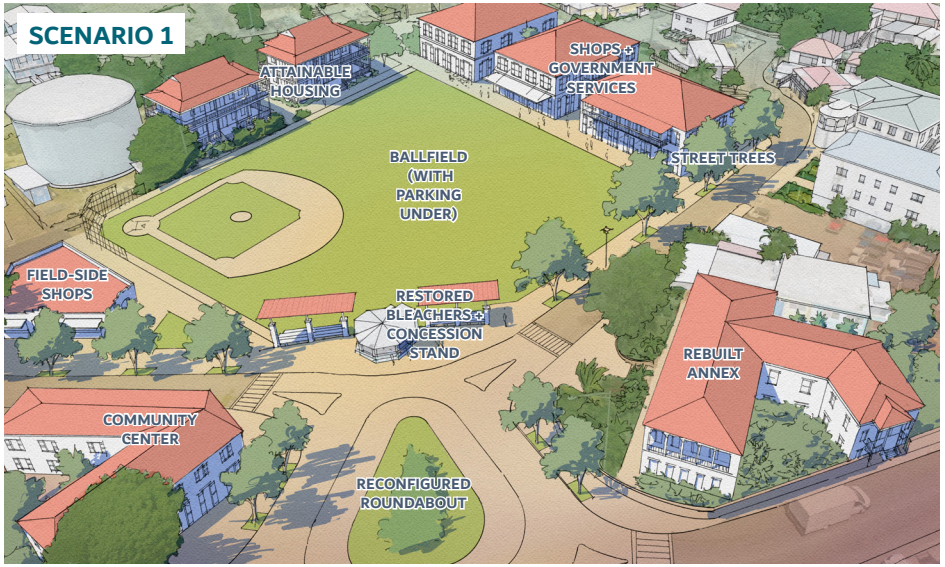
Moving forward, it will take years to resolve many of the tensions and legal issues between the National Park and St. Johnians. But to do nothing would be a disservice to everyone touched by these issues. Resources and community discussions will be needed to move these issues toward resolution.

Right: Cruz Bay (foreground) and the green hills of the National Park beyond.

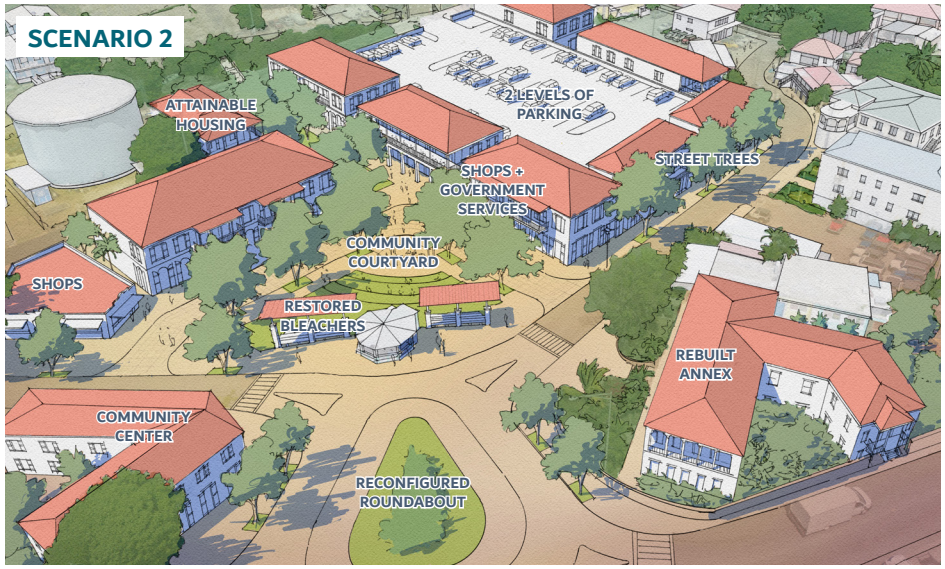
Basic Services

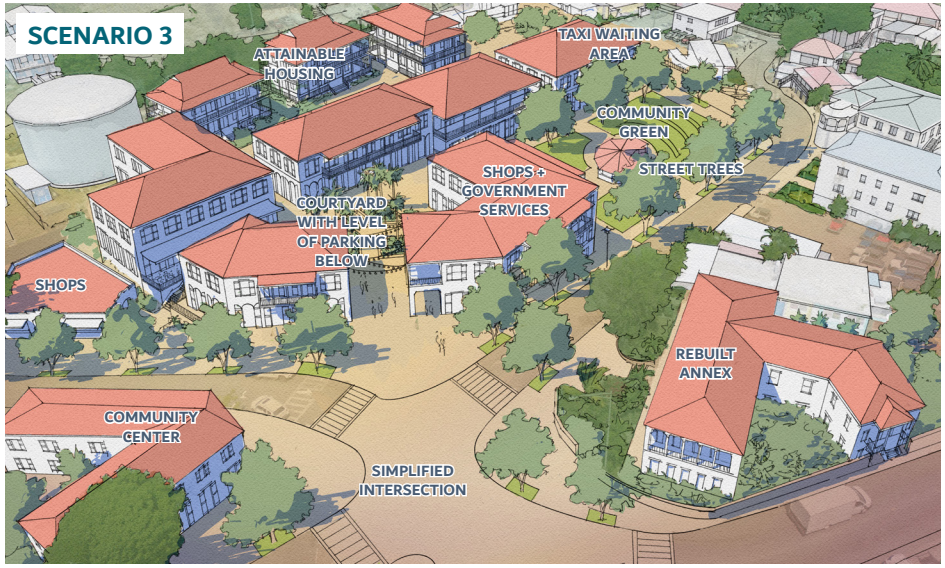
Many of the everyday services provided elsewhere in the USVI either do not exist on St. John or are, in some way, more limited. Access to basic goods and groceries is more limited, and the choices available on the island are more expensive. Many government offices have limited or no presence on St. John and access to professional and medical services can also be limited. Many St. Johnians often find themselves in a position where they must travel to St. Thomas to perform routine tasks or access goods simply unavailable to them. Additionally, and most famously, for years high school students have traveled long distances pre-dawn to reach school on St. Thomas, extending their typical day by several hours. All community discussions during the Plan process raised this issue and the Plan Cruz Bay effort focused intently on the issue of expanding access to basic services.

At the time this Plan was drafted, a land swap occurred between part of the Catherineberg Estate (inside the National Park) for Whistling Cay, which cleared the way for constructing a school complex that removes the need for high school students to travel to St. Thomas. Moving the school will also result in the decommissioned Julius E Sprauve (JES) School in Cruz Bay Town, a facility that was severely damaged in the 2017 hurricanes. This site will come to represent one of the most significant redevelopment opportunities in recent history on St. John and is discussed in detail in Plan Cruz Bay. The site presents a truly unique opportunity to provide facilities that could improve access to basic services and general quality of life for generations to come.



Illustrations from Plan Cruz Bay that show concepts for reuse of the JES School site. Top: Existing conditions with damaged school buildings, and temporary trailers covering the community ballfield. Below: Restored community ballfield with structured parking below, and new buildings with shops, housing and government services.





Illustrations from Plan Cruz Bay that show concepts for reuse of the JES School site. Top: A smaller community green near existing Veterans Circle, and a public parking garage lined by new buildings with shops, housing and government services. Below: A similar mix of uses as scenario 2, with a larger community green closer to Hill Street, and one level of parking below grade. For more information, see www.plancruzbay.com.

Housing for St. Johnians

Housing affordability is a crisis throughout the entirety of the USVI and is discussed at length in the chapter called Living and Thriving Together. For the purposes of discussing St. John, it is worth noting that this community faces many of the USVI's housing issues at the most extreme level. The limited overall supply, extreme pressure for short-term rentals, high rates of seasonal occupancy, and lack of infrastructure make it incredibly difficult for working class, year-round residents to find housing. Solving the housing problems on St. John will require years of implementation and numerous approaches that address the problem in a systemic fashion. No single strategy can act as a "silver bullet" to address this issue.

ACTIONS FOR ST. JOHN

In addition to the Territory-wide strategies provided in previous sections, specific strategies for St. John are described below. As a reminder, these strategies for St. John do not stand alone. A lot of the issues that the people of St. John wanted this plan to address, from regulatory reform, to natural resource protection, to public services and facilities, are addressed in the Territory-wide strategies.

CRUZ BAY

- Implement the strategies and vision from Plan Cruz Bay where the document shows consensus on intended outcomes. Use the organizing principles to guide future land and water use decisions.
- Continue analysis and discussion of initiatives that showed multiple scenarios in Plan Cruz Bay, such as the Sprauve school redevelopment and organization of different boat transport.
- Prioritize an assessment of government owned property to identify where these lands can be used to help achieve this refined community vision and provide space for much needed community services.
- Develop formal architectural controls for the Cruz Bay Town Historic District that protect landmarks and elevate awareness of the Post-Transfer Neo-Vernacular style. Revisit the boundary for the district to ensure it adequately protects existing resources.
- Revisit the Commercial Zone program legislation with a focus on using Cruz Bay as a testing ground for making the program more effective, targeting funds to local property and business owners.

CORAL BAY

- Create a comprehensive, long-term vision for Coral Bay that includes a strategic plan for investment in infrastructure that will guide future development that is both resilient and appropriately scaled to serve the needs of residents.
- Actively engage with property owners, particularly ancestral property owners to identify their needs and create pathways to investment and maintaining ownership.
- Continue active partnerships with Coral Bay Community Council and partner where it is helpful to continue their work on OSDS research or other initiatives related to water quality and infrastructure.

CENTERLINE ROAD

- Explore options for zoning reform that will help make it easier to provide needed services and housing in a "mixed-use mid-island center" with improved pedestrian access.

THE NATIONAL PARK

- Provide St. Johnian families with the financial and legal resources needed to resolve property disputes.
- Identify a venue for regular updates and discussion between the community and the National Park leadership. Consider using regular meetings with newly established local permit review authority (e.g., Planning Board).

BASIC SERVICES

- Provide incentives for locally sourced food to meet local demand for culturally appropriate cuisine and improve/introduce more agriculture production and distribution at a variety of scales.
- Re-establish services for processing and removing bulk solid waste including, but not limited to, hazardous waste and automobiles.
- Ensure future development of the Sprauve School site includes government services that will reduce the need for residents to travel to St. Thomas.
- Explore options for reestablishing an electric substation on St. John to help provide better redundancy during power outages.
- Develop a plan for and implement real time person-to-person virtual access from St. John to all agencies of government, particularly those providing the following services: education, health and welfare, public safety, housing, real property records, paternity and child support, judicial, sanitation, licensing and consumer affairs, and coastal zone and building applications and permits, including enforcement of permits and violations of applicable laws, rules, and regulations. Once successful, consider expanding these services to St. Thomas and St. Croix.

HOUSING

- Reform zoning standards to expand the diversity of year-round housing offerings in appropriate areas of the island with a focus on serving the housing needs of St. Johnians, including more dense, low-height dwelling units that better match the local vernacular.
- Where residential use is included, prioritize any government financial assistance for properties where long-term rental options (non-transient) will be provided exclusively.

A PLAN FOR ST. CROIX

ISSUES & OPPORTUNITIES FOR ST. CROIX

Advancing Food Sovereignty

Greater food sovereignty is an important focus of this plan, to the extent land and water use support that goal. The Local Food and Farm Council is the Territorial lead on this issue, comprised of representatives from the government (including DPNR), local farmers from all three islands, and representatives of the local food industry. While each major island can play a critical role in creating a more independent food system in the USVI, St. Croix is uniquely positioned to be at the core of this effort. The size of the island, soil, topography, and land availability create more opportunity for food production, processing, storage, and waste management. The island also has several port facilities that could play an important role in food distribution and short-term storage both on a day-to-day basis and as part of emergency response (i.e., post-hurricane). Furthermore, St Croix has momentum in its planning and implementation of agricultural initiatives. Partnerships between the USVI Good Food Coalition, UVI/RT Park, VITEMA, the Department of Agriculture, and others based in St. Croix demonstrate the power and necessity of collaboration between the government and local civic groups and provide a strong foundation that can advance agricultural programs across the entire Territory.

An example of visionary implementation related to food sovereignty, and emerging through partnerships, is the proposed Tech Village agricultural community adjacent to the UVI Campus. According to materials from the RT Park, this project is envisioned as a 26-acre mixed-use economic development project focused on addressing economic diversity, housing, and educational needs in the St. Croix community with innovative additions to our infrastructure. The project will be an integral component of an expansion dedicated to agricultural research and technology.

Highlights of the initiative include:

- 60 units of residential housing
- 12,000 square feet of commercial space
- 120 room teaching hotel
- 300-person capacity conference room
- Solar microgrid
- 18 acres of farming
- Farmers' cooperative
- Farmers' grant program
- Majority private funding
- VI Disaster Recovery Project
- Critical St. Croix Community Benefits
- ~425 Jobs (~300 permanent agriculture-related jobs; 125 construction jobs)

Government support, including financial resources, should remain a high priority for this transformative project.

Rendering of the proposed Tech Village agricultural community adjacent to UVI (source: www.techvillage.com)

National Heritage Area Designation

In December of 2022, the United States Congress established the island of St. Croix as a National Heritage Area. This designation was the culmination of decades of advocacy and study. The 2010 feasibility study for this designation summarizes the powerful heritage of this island:

"The largest of the three U.S. Virgin Islands, St. Croix lies at a geographic crossroads, connecting the Caribbean Sea and Atlantic Ocean currents with the westerlies and easterly prevailing trade winds. This ideal location, along with the fertility of the island and the productivity of its surrounding waters, has attracted and sustained people from around the world...

St. Croix embodies a wealth of natural, historical, and cultural features that represent the unique blending of American, African, and European heritage. The island has an extensive network of sites set aside to protect these resources — places that are accessible to the public to learn about and experience first-hand the stories of the island's distinctive cultural connections..."

The national Heritage Area status can be used to raise awareness for current and future generations of Crucians about the rich history and culture of the island. The designation can help place local arts, traditions, food, and history at the heart of the tourist economy and can leverage funding for historic preservation and heritage awareness. Getting the most from the designation will require increased capacity and long-term planning. The Virgin Islands State Historic Preservation Office (SHPO) is the official local coordinating entity, which typically leads initiatives for management, outreach, funding, and partnerships. While there are many diverse local businesses and organizations that can contribute to the success of the National Heritage Area program, coordination of these groups will be time consuming. In that regard, SHPO is in a position where it can only meet the expectations of a local coordinating entity with strong partnerships.

THE ECONOMIC IMPACTS OF NATIONAL HERITAGE AREA DESIGNATION

Numerous local and regional studies have been done on the economic impacts of National Heritage Area designation. The Alliance of National Heritage Areas (ANHA) provides a summary of these findings on its website:

"National Heritage Areas support tens of thousands of jobs and contribute billions of dollars to local economies.

NHAs are catalysts for economic development in the communities in which they are located. NHAs are affiliated with the National Park Service and are managed by independent Federal Commissions, nonprofit groups, or state or municipal authorities. They implement projects through public/private partnerships with a variety of stakeholders, and collaborate with state and local governments to ensure that the regional goals of cultural, historical and natural resource protection are met. In the process, NHAs strive to improve the quality of life in their regions by fostering the development of sustainable economies.

An independent 2012 study by Tripp Umbach found that NHAs' overall annual economic impact in the U.S. is $12.9 billion, which significantly exceeds the amount of federal funding provided to NHAs by as much as 5:1. The economic impact is comprised of three main areas: tourism, operational expenditures and grantmaking activities; the majority of impact (99%) is generated by tourism spending.

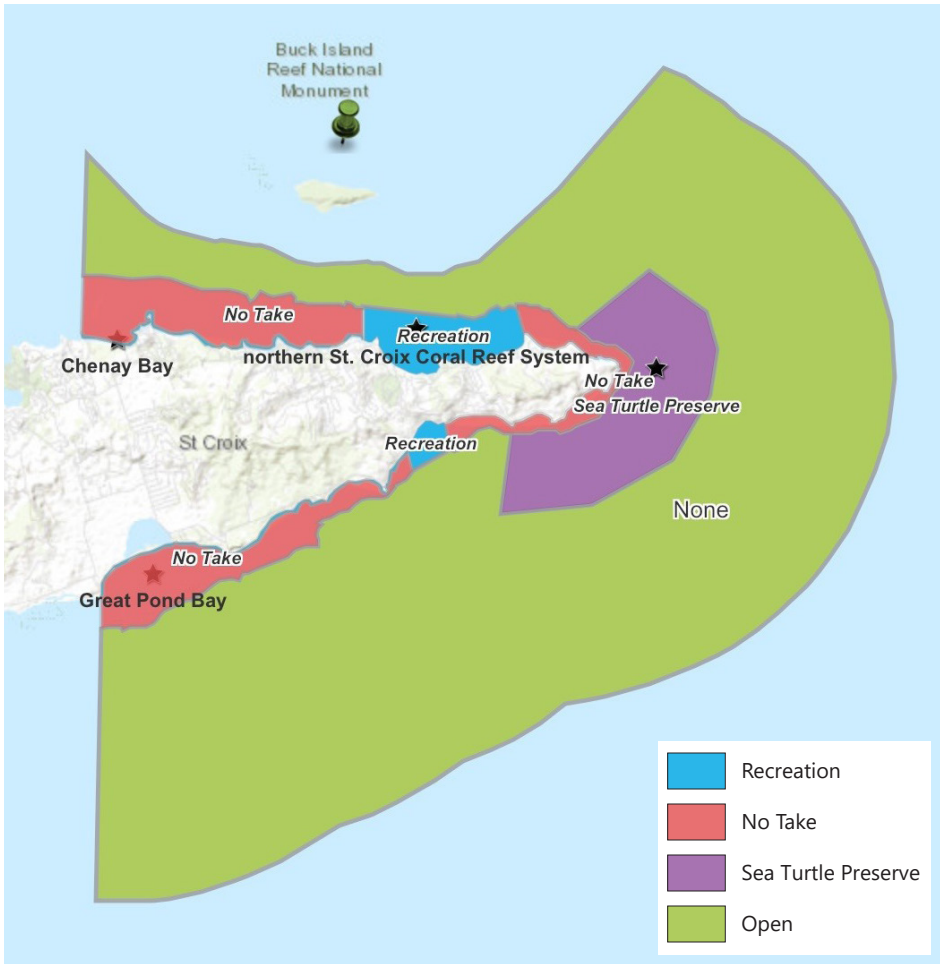
The economic impact was significant in two ways:

- *$4.6 billion in direct impact, which includes tourist spending, NHA operational expenditures and grantmaking activities*
- *$8.3 billion in indirect and induced impacts, which includes employee spending and businesses supporting the tourism industry."*

St. Croix East End Marine Preserve (STXEEMP)

STXEEMP is the USVI's first officially designated marine park, representing an important milestone in marine area protection as well as important framework for resource protection. The area is managed by Coastal Zone Management (DPNR) and sets four basic regulated areas as depicted at right.

As discussed in other areas of this Plan, the protections found in STXEEMP are critical to the future of the USVI and should be continuous revisited through the use of the marine park management plan. As part of these ongoing efforts, clarifying the jurisdiction, authority, and managing agency related to overlapping protection areas will be important.



St. Croix East End Marine Park
(source: dpnr.vi.gov/coastal-zone-management/what-we-do/marine-protected-areas)

Christiansted

Christiansted is central to the identity of St. Croix and the USVI Territory as a whole. The historic Christiansted Town area, in particular, is a focal point for commerce and tourism with a diverse collection of highly rated restaurants, hotels, shops, historic streets and buildings, Fort Christiansvaern, and many other attractions. Christiansted has struggled to maintain its vibrancy for the same myriad challenges faced by all the USVI's historic centers, but manages to maintain a steady baseline of economic activity both related to tourism and locally run businesses.

Christiansted Town Plan X (Circa: 2013)
(source: tallerlarjas.com)

The Christiansted Town Plan document was prepared by architect Gerville R. Larsen, A.I.A. and provides a concise blueprint for revitalization, summarizing the recommendations under 11 separate headings (see table right). Although this plan was over 10 years old during the Plan process, many of the recommendations that pertain to land use and development remained relevant. Notably, Larsen observes that Christiansted town proper once had a population of approximately 5,000 people—over double current estimates. This underlies the potential for this area (and other historic centers) to help alleviate the housing crisis that is linked to multiple social and economic challenges across the USVI.

The narrative vision presented in this plan serves as a vital record of community engagement at a point in time and, while the plan is now 11 years old, many of the themes and strategies resonate today—some of which are in active implementation (e.g., Market Square improvements).

"The intention of this town plan is to provide a framework for addressing many varied and diverse challenges facing the town and offer potential solutions to overcome them: repositioning Christiansted so it may, once again, become a viable, vibrant and bustling town."

—Town Plan

ORGANIZING THEMES IN THE CHRISTIANSTED TOWN PLAN	
Residential, Short Term, B&B and Hotel Development	Public Safety, Code Enforcement, Loitering, Littering & Noise Pollution
Commercial Development	Homeless, Addicted, Self-medicating and Indigent Housing
Historic Preservation & Public Education	Contemporary Architecture as a Complement to Historic Preservation
Enhancing and Improving Existing Infrastructure	Economic Development Funding Strategies
Parking and Parking lots	Development Anchors
Sedimentation and Erosion Control Issues	

Sunday Market Square and the Alexander Theater

Strategies for an Equitable and Resilient St. Croix, ULI Advisory Panel Report, June 2018

The Urban Land Institute (ULI, see inset) performed a series of focused technical assistance engagements on St. Croix. These sessions were organized with local partners—Virgin Islands Housing Authority (VIHA) and Virgin Islands Housing Finance Authority (VIHFA)—and produced concise reports that frame a strategic approach for different areas at varying levels of detail. The report produced for Christiansted provides a summary of their recommendations as follows:

Equitable economic development:

- Instead of focusing on "big idea" large-scale investment, consider smaller, sustainable, equitable and incremental investments.
- Meet people where they are with opportunities scaled to grow human capacity. Consider small, worker-owned co-ops and artisanal businesses as both economic development investments and investments in the people of St. Croix.
- Foster an agribusiness sector.

Infrastructure:

- Invest in resilient, efficient, and renewable electrical generation and distribution systems to reduce energy-related barriers to economic development.
- Consider privatization of utilities to transfer the high capital cost of upgrades to the private sector. If privatized, use the power of the government regulatory system to ensure delivery of low-cost, high-value utility services.
- Consider opportunities to rethink waste as a closed-loop system to generate energy and revenues.
- Improve water management systems by deploying permaculture methodologies, greenway water management, softscape parks and recreation spaces, and water recovery systems.

THE URBAN LAND INSTITUTE is a global, member-driven organization comprising more than 42,000 real estate and urban development professionals dedicated to advancing the Institute's mission of providing leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics.

– ULI, 2022

Mobility:

- Make the mobility systems work with incremental investment of recovery funds.
- Make transportation investments in different modes of transport, including a bike-share system, motorized scooters, and jitney services.

Placekeeping:

- Develop St. Croix's story and market it vigorously
- Enhance and grow tourism around the island's undervalued assets: land, sea, and other natural environments; historic architectural fabric; unique cultural character, history, and emerging cottage industries.

Housing:

- Engage residents in the design of the public realm and public housing.
- Phase new construction around the development of the panel's proposed waterfront park and use this project to pilot and implement new designs, construction methods, material modalities, and development models that jointly export less capital off the island.

Sketch from ULI report showing areas for public and workforce housing connected to the Christiansted town center (source: americas.uli.org)

The **VIRGIN ISLANDS ARCHITECTURE CENTER FOR BUILT HERITAGE AND CRAFTS** (VIAC) is a non-profit organization that is transforming the Old Barracks Property on Hospital Street, Christiansted into an educational center with a focus on built heritage, historic preservation, architecture, and the building arts of the Virgin Islands and the Caribbean. The historic preservation educational center will collaborate with schools across the globe to provide education, training, internships, and career pathways that pay tribute to tradition and innovate, anticipate and plan for current and future needs.

Frederiksted

As with Christiansted, this Plan benefits immensely from previous community planning performed for Frederiksted, both in the historic center and surrounding environs. The work performed in these documents provides a strong foundation for action designed to liberate the local economy from colonization and celebrate the historic and contemporary strengths of this area. Highlights related to these documents are summarized below.

Strategies for Equitable Redevelopment, ULI Advisory Panel Report, June 2022

Led by the Virgin Islands Housing Authority (VIHA), a local group of community leaders worked with ULI to build an approach to implementing the larger Redevelopment Plan for the Territory in the wake of the 2017 hurricanes and COVID. Through an intensive engagement process, VIHA worked with residents and business owners to develop a plan covering a wide range of topics related to revitalization of Frederiksted with a focus on Housing Authority properties and practices within the agency. The resulting plan is well-organized and concise, covering many challenges related to organizational capacity, community engagement, project financing, property management, housing affordability, energy efficiency, and site development practices. From the perspective of land use (a focus of the Plan), several issues and recommendations reflect and strengthen broad themes and specific strategies.

As an example, recommended best practices for VIHA redevelopment include:

- Passive heating and cooling techniques
- Stormwater management and efficient water management
- A range of housing for all—seniors, workforce, mixed income, market rate
- Innovative mixed-use development programs and techniques
- Connectivity and mobility woven into site and neighborhood design
- Opportunities for recreation
- Universal design for accessibility
- Placement of key infrastructure for resilience
- Integration of health care, education (training) resources, and schools into development planning

Leveraging Cultural Anchor Institutions, Building Blocks Technical Assistance, Next Steps Action Plan, February 2022

This plan was developed through the U.S. EPA's Building Blocks Technical Assistance program, providing a brief, intensive community engagement process (see inset). While the process for developing this plan was, in some ways, similar to the ULI Advisory Panel Report, the lens through which the report views revitalization is different. The ULI report viewed the revitalization of Frederiksted through the lens of housing, while the Building Blocks report used the anchor institution of Fort Frederik as a platform for examining how cultural opportunities might catalyze revitalization through workforce training, community partnerships, business incubation, and spotlighting the (ongoing) history of Frederiksted as a hub for decolonization. Examples of strategies that echo and strengthen the language of this Plan include:

> *2.2 – Inventory, activate, and honor underutilized buildings and community spaces through events and temporary exhibits that continue the Fort's programming during its renovation.*
>
> *2.3 – Identify infrastructure and streetscape investments to support community development (bike paths, street lighting, landscaping).*

Any future investment in Frederiksted, either public or private, should be reviewed against the contents of these documents to determine the degree to which it does or does not further the applicable strategies.

"The Building Blocks Technical Assistance process helps a community or organization move through a process of assessment, convening, and action planning by sharing information about a particular smart growth topic and helping people create a plan to move forward on implementation."

– Next Steps Action Plan


TAP DEC
BAR & BILLIA
ST.CROIX, US VIRGIN ISL
340-773-52
Cane Bay
DIVE SHOP
WEST
(340) 772-0715

Sunny Isle

Developed in the 1960s, Sunny Isle Shopping Center is an active shopping destination for daily needs and services for St. Croix residents. The shopping center is located at the crossroads of Queen Mary Highway and Melvin H. Evans Highway and, at the time this Plan was developed, features over 300,000 square feet of leasable space with 1,800 parking spaces. The shopping center features a movie theater, retail shops, food options, and essential services like the Social Security Administration and Post Office. At the northeast corner, a play area and shaded stage/amphitheater is a place for neighbors to gather and connect.

This area is well located in some respects because it is at the center of residential neighborhoods; but the current layout does not appropriately consider the location in the path of a historic drainage gut, and the amount of pavement in buildings and large parking fields exacerbates flooding. There is potential to re-think the future of this site to still accommodate a neighborhood center, but with green infrastructure/stormwater retention to better accommodate water flow and recharge the underlying aquifer. Over time, there could be a phased transformation of the shopping center into a mixed-use center that better serves community needs and expands housing opportunities. A new block and street network could be arranged on the site to allow for increased value and create a more walkable neighborhood center.

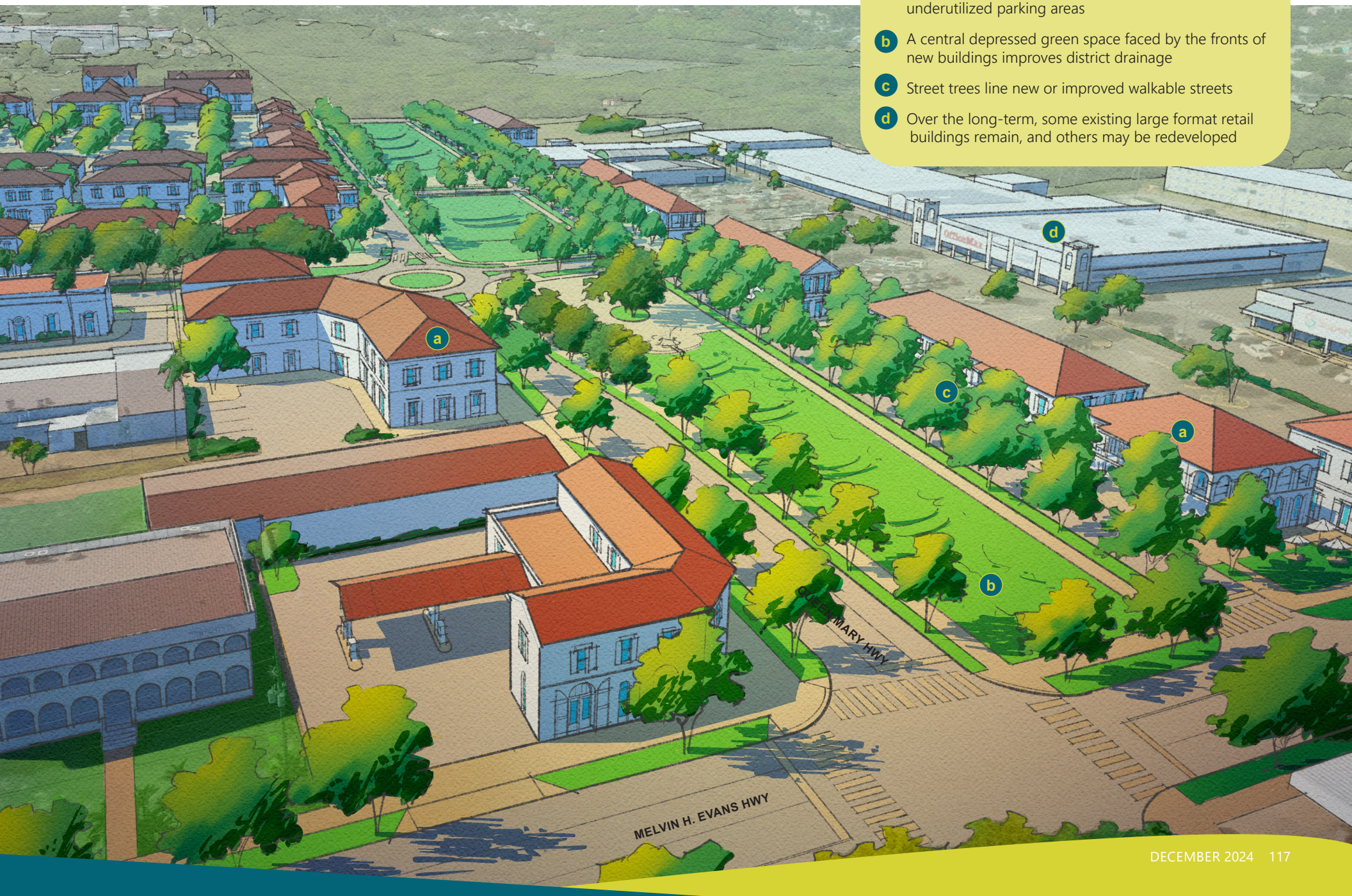
The surrounding area features neighborhoods, major industrial lands to the south, and the Governor Juan F. Luis Hospital and Medical Center to the north. The current street configuration is dependent on a few major roadways that are automobile-oriented in nature, with poor pedestrian and bike conditions. To better distribute vehicular flow and to better connect people to area resources, more connections (streets and trails) through the Sunny Isle area should be considered.

Above: Existing conditions, Sunny Isle Shopping Center

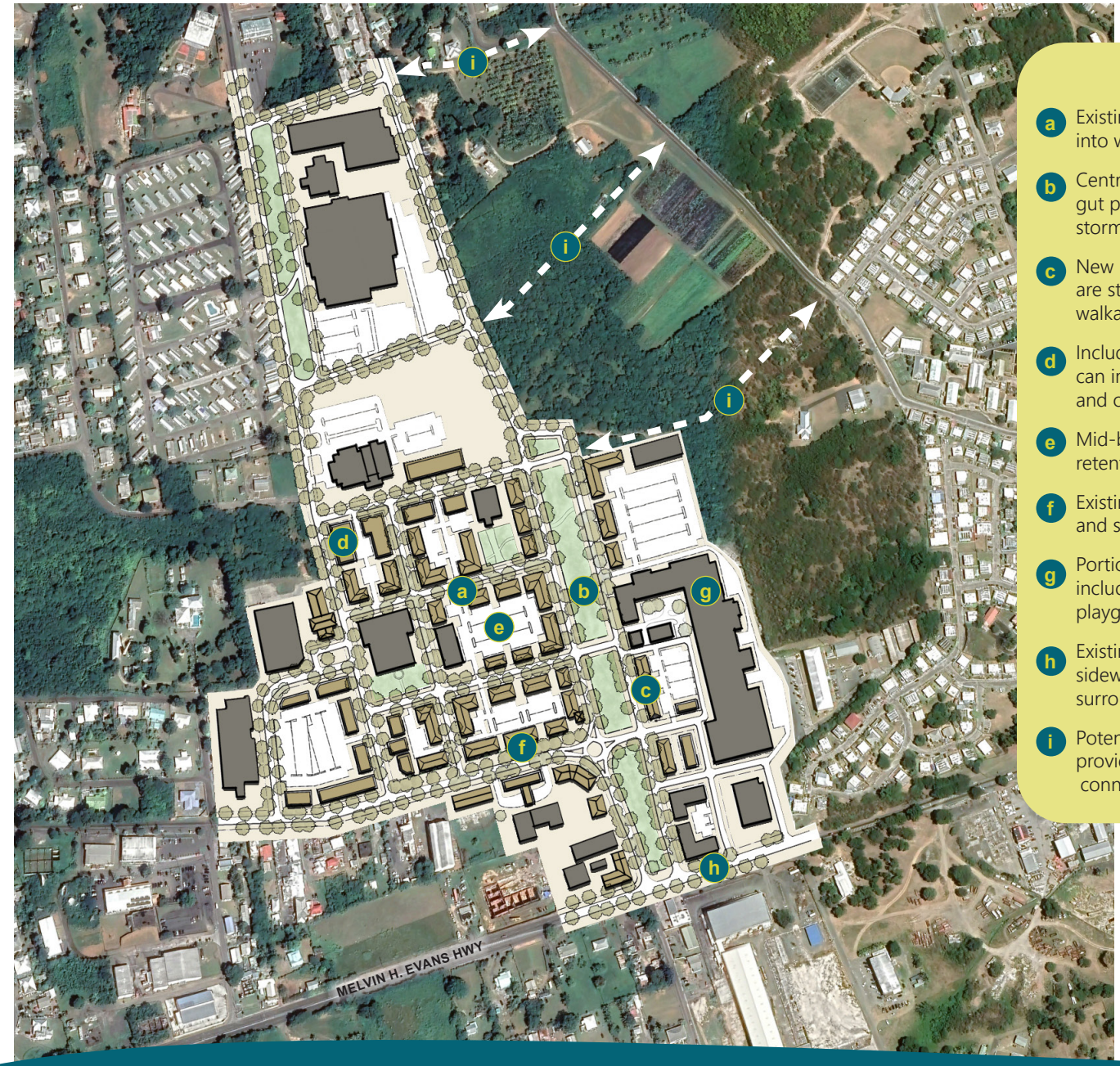
Right: Potential future conditions, with large parking lots repurposed to include a connected street network and a central green that provides community gathering space as well as stormwater retention.

KEY IDEAS ILLUSTRATED

- **a** New mixed-use buildings, in a street-oriented form (with parking to the rear), are added over time to underutilized parking areas
- **b** A central depressed green space faced by the fronts of new buildings improves district drainage
- **c** Street trees line new or improved walkable streets
- **d** Over the long-term, some existing large format retail buildings remain, and others may be redeveloped



Sunny Isle Illustrative Vision



KEY IDEAS ILLUSTRATED

- **a** Existing shopping center parking lots could be retrofit into walkable-sized blocks and streets with a mix of uses
- **b** Central depressed green along the alignment of existing gut provides community gathering space and serves as stormwater retention, accommodating high flows
- **c** New mixed-use buildings, including residential units, are street-oriented with parking to the rear, to increase walkability and sense of place
- **d** Including a range of housing types in mixed-use centers can improve community access to local retail, healthcare, and other community needs
- **e** Mid-block parking can also serve as stormwater retention space
- **f** Existing large trees are incorporated into the new block and street network, and preserved
- **g** Portions of existing shopping center could remain, including some large format retailers and existing playground/amphitheater
- **h** Existing streets are improved with street trees, wide sidewalks, and bike facilities to increase access to surrounding neighborhoods
- **i** Potential new connections to the northeast can provide additional (pedestrian, bike, and automobile) connectivity to surrounding areas

Left: The Illustrative Plan shows a long-term vision for potential reuse of the Sunny Isle shopping center and surroundings as a walkable mixed-use neighborhood.

Existing Buildings

Potential New Buildings

Five Corners / Northside Road

Northside Road is a commercial corridor that extends from Downtown Christiansted through the neighboring community of La Grande Princesse. The corridor includes a variety of commercial uses and local businesses. The surrounding residential neighborhood includes multi-generational homes, with apartment complexes closer to the water. Development along Northside Road is primarily automobile-oriented with parking to the front of commercial buildings. Where sidewalks are present, they are narrow, and walking is difficult with limited shade and pedestrian accommodations. The Five Corners intersection of Northside Road with Little Princesse Road/Erik Lawaetz Drive/and Rattan Road is particularly challenging to navigate on foot.

Re-thinking the Five Corners intersection and Northside Road design to better accommodate pedestrians creates an opportunity to provide greater connectivity, walkability, and more diverse housing types in a new mixed-use center. Sketches demonstrate the potential reconfiguration of turning lanes and pavement in the intersection into a new community gathering space. A greater mix of uses can refresh and revitalize the corridor, which could include mixed-use buildings with office and residential units in addition to retail and commercial services. New mixed-use development should be street-oriented (with parking behind) to frame the public space. The corridor street design should include street trees and continuous sidewalks, and improvements to drainage and infrastructure. This area represents the type of opportunity where considerable investment in public improvements may be needed first before private investment is inspired to follow.

Above, right: Existing conditions, Five Corners intersection

Right: Potential future conditions, with a reconfigured intersection and mixed-use development that is street-oriented (with parking behind) to frame public spaces.

Visualizing Change: Five Corners

Above: Existing conditions, Five Corners intersection

Right: Potential future conditions, Five Corners intersection redesigned to include a roundabout/town square, with mixed-use development on surrounding blocks.

KEY IDEAS ILLUSTRATED

- **a** Intersection reconfigured as a "square-about" to improve pedestrian/bike safety and comfort, and form a new public space
- **b** New mixed-use buildings, including residential units, are street-oriented (close to the sidewalk, parking in the rear)
- **c** Street infrastructure improvements (drainage/sewer) support development, and include street trees and wider sidewalks to create a comfortable pedestrian realm
- **d** New/improved public spaces (streets and plazas) include green infrastructure to increase resiliency; public spaces can also include cultural exhibits and public art
- **e** New/improved bike infrastructure connects key corridors throughout St. Croix


RATTAN RD
MAIN PRINCESS / NORTHSIDE RD
LITTLE PRINCESSE RD
ERIK LAWAETZ DR
a
b
c
d
e

The Refinery

The Refinery that once operated on the southern coast of St. Croix began operations in 1966 and grew into one of the world's largest crude oil processing operations, peaking at 650,000 barrels per day in 1974 and generally remaining over 500,000 barrels per day for several decades. The operation was shut down in 2011 due to Clean Air Act violations and the Declaration Of Bankruptcy, and ownership changed hands several times after this point in its history. Residents in neighboring communities documented ongoing struggles with sickness over decades and a series of accidents in recent years spread toxic fumes and sprayed oil onto nearby properties. Continued investigations by the U.S. EPA showed dangerous conditions on the site related to equipment and stores of hazardous materials. As the majority of affected residents are black and brown Crucians, these events provide a stark example of the environmental justice legacy that lives on in many industrial areas across the country. While the current owners have applied to restart the refinery operation, EPA will require the facility to obtain a new permit under the Clean Air Act before this can happen. EPA's decision is under appeal.

While the public health impacts continue to be a primary focus of this site, the economic impacts also weigh heavily in the discussion. The economic impact to St. Croix and the USVI of closing the Refinery was massive, resulting in the sudden loss of thousands of jobs and high levels of revenue. The future of this site will undoubtedly play a critical role in the local, regional, and global economy by virtue of its scale, accessibility, and existing infrastructure. The piers and some of the surrounding property continue to be active for some shipping and storage operations, but from the perspective of commerce, the site is a shadow of its former self.

The Refinery, St. Croix

South Shore Trade Zone

The USVI Economic Development Authority (EDA) serves as the lead agency related to the South Shore Trade Zone. This stretch of land includes more than 500 acres advertised for development/ redevelopment and lies along the southern coast between the Refinery and Breids Bay. The USVI, through EDA, offers several aggressive financial incentives for this area:

20-year Tax Exemptions

- 90% for corporate and individual income taxes for shareholders, members, and partners
- 100% for customs duties, excise taxes, and gross receipts taxes
- 100% for property taxes for eligible activities

Industries suited to the area have a range of choices for buildable sites, with some being almost wholly undeveloped and others already having extensive port infrastructure or existing industrial park development. Target industries include agriculture, mariculture, food processing, pharmaceuticals, energy, and manufacturing.

The potential for investment in this area is clearly large, and USVI's Vision 2040 establishes several specific development goals for selected parcels in the areas and calls for the development of market analyses to support the achievement of these goals (see inset). The area could play a significant role in establishing a node for the USVI's efforts toward food sovereignty. Another interesting opportunity for this site would be the demonstration for state-of-the-art approaches to resilient development. The USVI Coastal Vulnerability Index (2019) and recent mapping produced as part of the Hazard Mitigation and Resilience Plan suggest these sites require some consideration for resilient design. Performing an assessment of applicable best practices and perhaps performing preliminary engineering designs could make the sites even more attractive for investment and ensure site designs that anticipate climate related impacts. EDA may also consider a cross-agency initiative to "pre-permit" the site with its own development feasibility analysis and preliminary engineered plans.

The South Shore Trade Zone (source: usvieda.org)

VISION 2040 STRATEGIES RELATED TO THE SOUTH SHORE TRADE ZONE

- Complete development of at least 50 acres of the St. Croix Renaissance Park by 2025, 35% of developable land by 2030, 50% by 2035, and 75% by 2040.
- Prepare market Analysis and Development Plans for a mixed-use business park on the 261+/- acres of USVI government owned 361 Estate Betty's Hope property south of Henry Rohlsen Airport.
- Begin development on 361 Betty's Hope with 10% complete by 2030, 25% by 2035, and 50% by 2040.
- By 2025, prepare Market Analysis supporting development of a second speculative building…reach at least 60% occupancy by 2035 and 100% by 2040.

Maroon Sanctuary Park

During the time of mass enslavement of African people and their transport to the Caribbean for forced labor, an underground network of trails and refuge areas emerged across the region for escaped slaves, known as Maroons. On St. Croix, particularly in the northwestern area, steep ridges with thick forests were used by Maroons in a variety of capacities. In some cases, escaped slaves would move through this difficult terrain as quickly as possible to access the shoreline for escape. In other cases, individuals might spend extended periods in enclaves, becoming part of hidden, organized communities. Maroon Ridge in St. Croix is considered sacred space by many and, over 30 years ago, the government had the foresight to condition a zoning approval in this area with the future establishment of a 1,000 acre preserve honoring the history of Maroons in this place. Efforts continue toward purchasing large tracts of land in this area through grants and partnerships, recognizing the need to take these lands "off the market" before they become developed. Moving forward, DPNR and the local stakeholders who have been instrumental in establishing the Maroon Sanctuary Park will need to set a detailed action plan for the areas that will address items like those listed below[1].

- Existing conditions survey including trails, artifacts, topography, sacred sites, etc.
- Identification of the managing agency/group.
- Description of the roles and resources dedicated to different stakeholder groups and agencies.
- Budgets for inventory/survey, design, site work, and maintenance.

The Kingshill Aquifer

As discussed elsewhere in this Plan, there is limited scientific knowledge about groundwater hydrology and aquifer systems throughout the USVI. Because of its unique conditions, St. Croix does have the largest aquifer in the Territory with the Kingshill Aquifer, which generally lies beneath the flatter terrain of the island (see figure on the next page). Further, while some aspects of previous scientific study are outdated, there is a foundation of study for this aquifer that can be used as a baseline for ongoing investigations. These studies are between (approximately) 30-50 years old and examine general characteristics of the aquifer, groundwater quality, usage volume and characteristics (e.g., pumping), potential recharge strategies, and risks to the health of the aquifer. Some important findings include:

- Aquifer yields are not particularly high but have historically supported sustained use for limited water supply.
- Water quality observations often show the quality of well withdrawals to be low and needing treatment, generally for high levels of salinity.
- Historically, several well sites experienced difficulties with sustained withdrawals. This was often the result of wells pulling saltwater into the wells area of influence.
- Risks to the health of the aquifer include: increasing demand for water from population growth and tourism; contamination (hazardous wastes, OSDS, leaky sewage lines, etc.); and saltwater intrusion.

1 This list should not be considered "complete" and further work will be required to plan accordingly for implementation.

These studies generally suggest the Kingshill Aquifer can be a useful resource to the people of St. Croix, but also that it is a fragile resource easily impacted by alterations to the land above it and the wells that draw water. Importantly, findings in these reports predate much of the development that has occurred over the last several decades, underscoring the importance of revisiting these studies and developing a strong technical understanding of the aquifer under current development conditions. Looking forward, it is also important to note this Plan highlights several development opportunities that could negatively impact the Kingshill Aquifer if not executed with care and proper design. Opportunities to redevelop Sunny Isles Plaza, the Refinery, the South Shore Trade Zone, and other areas should be viewed through the lens of maintaining and improving conditions of the Kingshill Aquifer. This can include design strategies for pretreating stormwater runoff and recharging into the aquifer before it can runoff into drainage infrastructure.

Figure 113. The Kingshill aquifer is in the central and southwestern parts of the island of St. Croix in the U.S. Virgin Islands.

The Kingshill Aquifer (source: usgs.gov)

ACTIONS FOR ST. CROIX

In addition to the Territory-wide strategies provided in previous sections, specific strategies for St. Croix are described below. As a reminder, these strategies for St. Croix do not stand alone. A lot of the issues that the people of St. Croix wanted this plan to address, from regulatory reform, to natural resource protection, to public services and facilities, are addressed in the Territory-wide strategies.

FOOD SOVEREIGNTY

- Inventory and digitally map all potentially productive agricultural soils and groundwater recharge areas with the best available information.
- Identify the specific tract(s) of land needed to implement the USVI Agricultural Plan's Strategic Orchard Development Initiative and also to meet the needs for large equipment storage/leasing.
- Coordinate with VIPA to ensure the establishment and/or expansion of port facilities on the south shore that can process and safely store food in a way that bolsters a local food system.
- Secure the necessary resources and develop the Tech Park.

NATIONAL HERITAGE DESIGNATION AREA

- Establish a more formal connection between SHPO (as the coordinating entity) and local cultural civic leaders. Identify and fund cultural resource projects that will advance community needs and empower civic groups to perform the work.

ST. CROIX EAST END MARINE PARK (STXEEMP)

- Amend and revise the current mapping, regulation, enforcement, and management structure to clarify and, if beneficial to the resources, consolidate the roles of government agencies.
- Formalize/adopt STXEEMP infractions into a fine schedule that holds violators accountable to the law and regulations.

CHRISTIANSTED AND FREDERIKSTED

- Establish a direct, dedicated assistance program through the USVI Economic Development Authority that is place-based and includes a paid coordinator with experience in community development, grant writing, and project management.
- Using the studies already performed for these towns (described above), identify individual revitalization and infrastructure projects and develop partnerships for funding and implementation.
- Partner with, provide resources to, and empower local civic groups to secure funding, provide technical assistance to communities, and manage projects.

SUNNY ISLES AND FIVE CORNERS

- Create public improvement plans with cost estimates and preliminary designs as preparation for future funding opportunities. These improvements could include stormwater infrastructure, road configurations, and pedestrian/bike infrastructure.
- Identify EDA incentives that may be applicable to these areas and provide direct outreach to property owners on these opportunities.

- Establish form-based design standards for new mixed-use centers that meet community needs and vision for improved walkability, connectivity, a range of housing types, resilient infrastructure, and usable open spaces.

THE REFINERY

- Require the full clean up and remediation of the land and water in and around the former oil refinery as the highest priority for the revitalization of the site, consistent with federal regulations and the responsible parties already identified through documented investigations.
- To help prepare for discussions with future investors, research future redevelopment scenarios for the site that explore alternative uses, flexible programming, infrastructure needs, and community safeguards.
- Ensure zoning allows for a wide range of industrial, warehouse, and energy uses consistent with 21st-century clean port models.
- Protect and adapt to climate change and hazards (sea level rise, saltwater intrusion, intense storms, earthquake, tsunami) to protect against future spills and contamination.

SOUTH SHORE TRADE ZONE

- Support strategies specifically identified for the South Shore Trade Zone in *Vision 2040* (see text above).
- Consider having the USVI government commission preliminary designs for coastal resiliency that can be presented to future developers.
- Consider innovative regulatory tools, such as pre-permitting, that provide a faster and clearer permit approval process conditional on meeting high standards for environmental protection and resilient design.

MAROON SANCTUARY PARK

- Continue to purchase property in Maroon Ridge and develop detailed implementation plans regarding the design and management of a public Sanctuary Park.

KINGSHILL AQUIFER

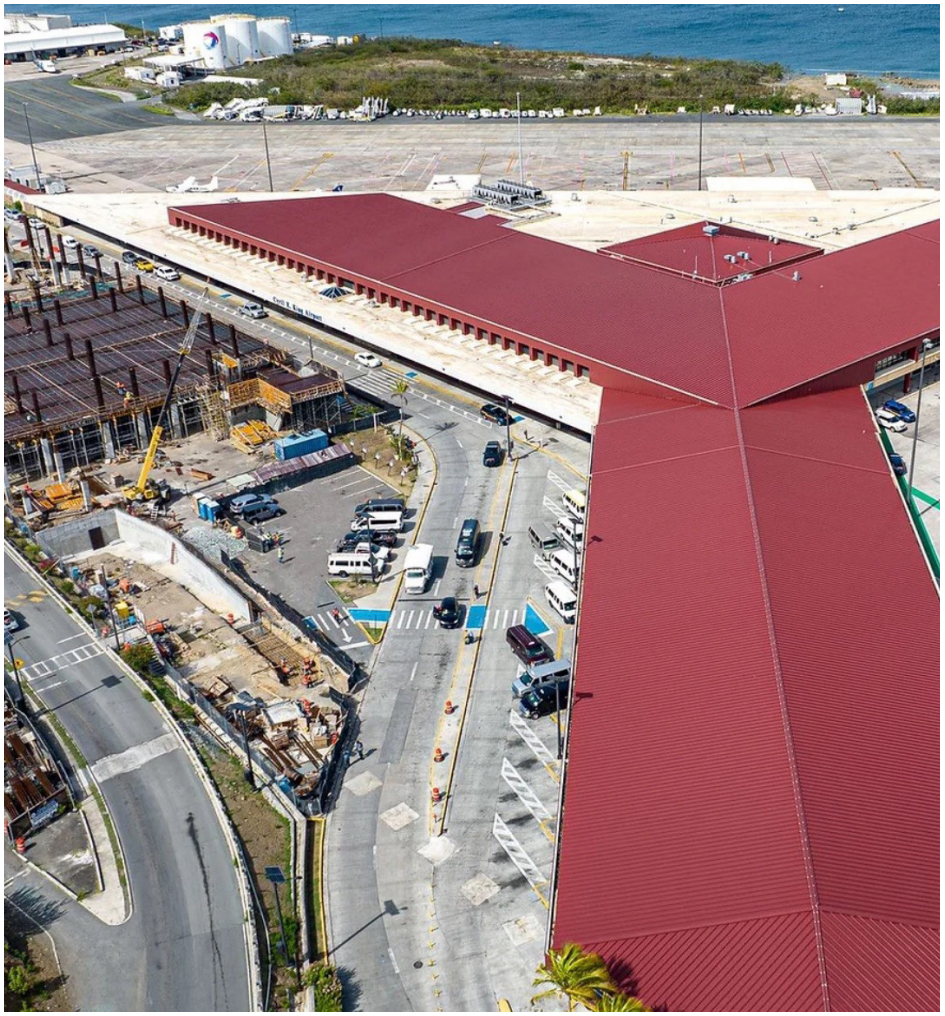
- Develop a fully updated scientific investigation of the Kingshill Aquifer that includes, but is not limited to:
  - Water quality investigations
  - Assessment of impacts to aquifer volume and quality from existing development and well withdrawals
  - Identification of restorative actions that can be performed by public infrastructure investment and development practices on privately-owned land.
- Adopt/enforce regulatory measures to protect and restore the aquifer to the extent practicable with requirements for pretreating stormwater runoff and recharging to the aquifer. Consider the use of a zoning overlay district.

A PLAN FOR ST. THOMAS

ISSUES & OPPORTUNITIES FOR ST. THOMAS

Limited Land Area

Limitations on buildable land area are felt across the USVI primarily as a function of being an island community. Other issues related to topography, environmental sensitivity, and (particularly with St. John) land under federal control add to the finite nature of land availability. But with the highest density of population, high demand for services, and the prevalence of severely steep terrain, St. Thomas experiences this problem perhaps more acutely than the other major islands. Accessible parks, open spaces, community infrastructure and services, and space for construction activities—these are basic needs the island struggles to meet on a day-to-day basis due, in large part, to a lack of available space. As a notable example, while the USVI experienced an influx of disaster recovery funds that could repair or replace infrastructure and key facilities (e.g., school and hospital facilities), one of the many challenges to implementation has been finding land to store equipment, materials, and debris related to construction. Moving forward, St. Thomas should prioritize a detailed assessment of both government and private property to identify suitable uses on available space. In the case of private property, the government could explore lease options, providing revenue to the owners and helping to serve the community.



Ongoing construction at Cyril E. King airport on St. Thomas (source: www.viport.com)

Tutu Park Mall

Tutu Park Mall is the hub of a larger commercial area with a collection of large-scale retail (e.g., grocery and department store) and office space, which includes headquarters for the Department of Planning and Natural Resources. Immediately adjacent to the plaza is a public library building (however, this building remains closed to the public for a variety of reasons, and it is not currently meeting its potential as a community resource). These uses make this area a focal point of community life on St. Thomas, where people access basic goods and services daily. As part of the Plan process, the planning team performed some visualizations of potential future infill development and new development on adjacent vacant land. Important site context includes this area lying in the Turpentine Run gut headwaters of the larger Jersey Bay watershed and the recorded presence of archaeologic resources (see inset page 131).

The plan diagrams developed in this exercise illustrate a flexible layout for mixed-use neighborhood development across multiple parcels, that could change and grow over time while preserving natural, cultural, and archaeological resources. The sketches show varying amounts of development and conservation, including potential redevelopment of existing commercial areas as well as adjacent undeveloped lands. Any of these scenarios could be pursued; where development will happen and in what order will depend on the decisions of property owners to make improvements and the results of future site analysis that provide a better understanding of existing conditions and resources. Change could happen incrementally, over time. In the near term, sites for civic spaces, community green space, and initial mixed-use development could be achieved while in the long-term, a more complete neighborhood could be realized. What is consistent among all the sketches are the key design ideas: providing connected, walkable streets to better connect residents with mixed-use destinations; incorporating green infrastructure to reduce runoff and improve conditions downstream; protecting natural resources; and including a mix of uses and variety of housing types as part of future development.

Photo over Tutu Park Mall (above) and at ground level on Weymouth Rhymer Highway (below). This area provides needed retail and commercial services, but the automobile-oriented form of existing development makes it uncomfortable to walk from nearby neighborhoods.

Tutu Park Mall Illustrative Vision

Left: The Illustrative Plan shows a long-term future option for the Tutu Park Mall area transformed into a mixed-use neighborhood. A walkable street network extends over the area, connecting some existing buildings that remain with potential development sites and surrounding neighborhoods. An illustration of what potential new buildings on these blocks could look like is included on the pages that follow.

Existing Buildings

Potential New Buildings

KEY IDEAS ILLUSTRATED

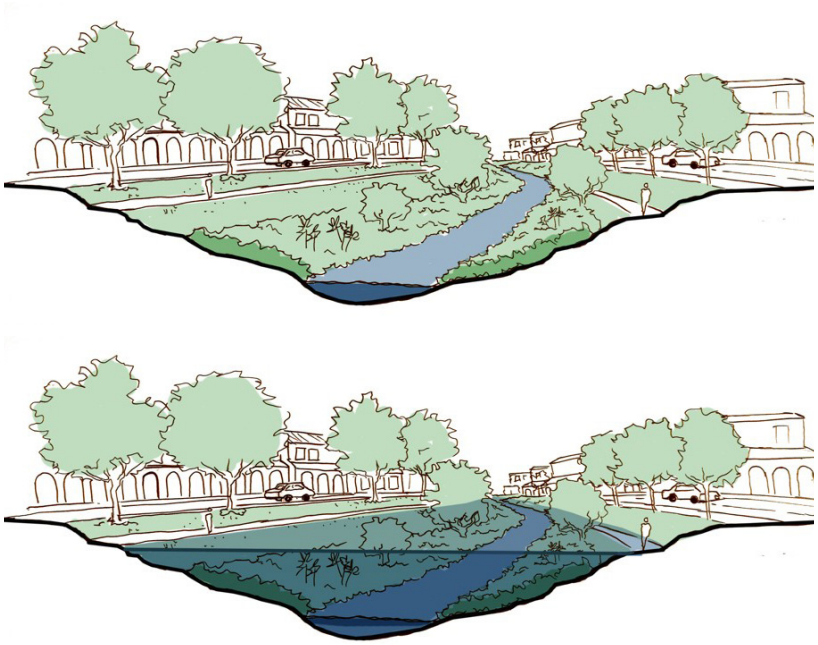
- **a** New mixed-use development along Weymouth Rhymer Highway is oriented toward the street, with parking to the rear, creating a more walkable street.
- **b** The existing library, portions of the mall, and other existing buildings can remain and be incorporated into the new street network.
- **c** New blocks and streets extend behind the existing retail center; streets can be lined by buildings that contain a mix of uses, including new housing options.
- **d** Depressed green spaces provide stormwater retention as well as neighborhood gathering areas.
- **e** Sites for civic buildings can be included in prominent locations as part of new neighborhood development.
- **f** Where steep slopes make vehicle connections infeasible, new trails or step streets could be included to maintain pedestrian connectivity.

Prior to new development in the Tutu Park Mall area, the Taino Indian Archaeological Study should be revisited and updated/ expanded to cover additional lands as needed. The results of this study can be used to inform future site design, identifying areas for conservation, and designating sites for new community spaces, which could include space for exhibition of artifacts as well as exhibits that explain and celebrate the significance of the history of this site.

For example, after further anaylsis the illustrative site layout on the previous page could be updated to include greater preservation of natural land (and trails instead of streets) as illustrated here.

Near-term, or maximized preservation option: New street connections improve access to the library while nature trails and drainage improvements are woven into preservation of existing natural resources and drainage patterns.

Mid-term, or partial development option: The network of blocks and streets is expanded to provide for a broader mix of uses with areas for preservation/protection of natural resources and community greens.



Left: Sketches show how public spaces such as the one shown in the illustrative plan can also serve to help with flood control. Most of the time, the space is green with a low flow channel and can accommodate trails and wildlife habitat (top). In the event of a large storm, the channel is designed to fill and provide expanded flood storage (bottom). The naturalized channel provides for beautiful long views and welcomes people to enjoy the space with trails and nature walks.

KEY IDEAS ILLUSTRATED

- **a** Street network connects housing with the mall / retail shops and the existing library
- **b** Parking is located to the side or rear of new buildings
- **c** New streets have trees and sidewalks
- **d** Stormwater retention is provided in a depressed green, that can also be used as community open space. Holding more water here will reduce downhill flooding

Below: Visualizing potential new development in the area behind the existing Tutu Park Mall with a mix of uses, variety of housing types and green infrastructure.

Charlotte Amalie

Charlotte Amalie is considered the cultural center of St. Thomas with the Historic District's impressive collection of Danish colonial street design and architecture. Numerous public art installations help to tell the rich history of the region and structures like Fort Christian and Bluebeard's Castle anchor a rich collection of historic sites. The port is the primary destination for cruise ships and other visitors, establishing Charlotte Amalie as the USVI's primary gateway to the rest of the Caribbean and beyond. In addition to the historical street infrastructure, recent investments in the Veteran's Drive walkway along the waterfront provide a linear park where people exercise, stroll, and gather.

With all these assets, Charlotte Amalie also has its share of challenges. Cruise ship operations are designed to make short stops in this area, providing a small radius of economic activity for tourists and shop owners. This area of concentrated commerce only touches a small portion of the town area and, with visitors largely kept from overnight or extended stays, large portions of the town area do not reap the benefits of the tourist economy. Re-orienting tourism in St. Thomas for longer, more immersive experiences designed to elevate the appreciation of local food, history, and culture will require time and investment.

Top: Main Street in Charlotte Amalie
Bottom: Veterans Drive pedestrian walkway (photo credit: Terrence Thomas)

While tourism is important to the future economic sustainability of Charlotte Amalie, it is important to note it is just one piece of a larger suite of tools needed to support local property owners and residents. As discussed in the Territory-wide section of this Plan, assistance related to probate, continued evaluation of EDA assistance programs, zoning reform, partnerships with civic groups, and targeted place-based technical assistance are all needed to support the re-birth of places like Charlotte Amalie, focusing more on directly building a local economy and less on the reliance of outside dollars to create prosperity.

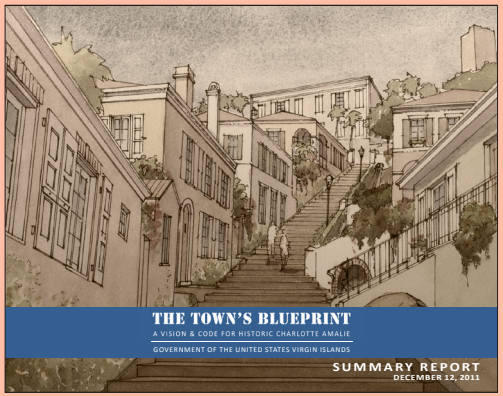
As a final, but critical challenge to Charlotte Amalie, the elevation of most of the historic town is low relative to sea-level, leaving it vulnerable to serious inundation from storm surge. The Town also lies at the base of long, steep slopes that drain enormous amounts of water into the town during heavy storms. Adding to the challenge, high water tables underneath the town make it impossible to recharge flood waters into the ground. This situation puts the historic center at risk for major flood damage during hurricanes and similar events, a risk that will only increase as climate change continues. Long-term flood management plans are needed for Charlotte Amalie to help ensure its viability for future generations.

Top: Charlotte Amalie's walkable historic center
Bottom: Charlotte Amalie waterfront

COMP PLAN SPOTLIGHT: THE TOWN'S BLUEPRINT, A VISION & CODE FOR CHARLOTTE AMALIE*

In 2011, DPNR, in partnership with the Community Foundation of the Virgin Islands (CFVI), completed *The Town's Blueprint*. This study was part of a larger effort to update the Territory's zoning and subdivision regulations, started in June 2010. The goal of that project was to provide the Territory with a modern, easy-to-navigate, and well-written set of regulations that are responsive to property owners, businesses, and residents and that reflect the broader public desires regarding growth and development in the Territory in the 21st century.

The Town's Blueprint represents a pilot project to demonstrate and test the application of a "Form-Based Code" in historic Charlotte Amalie. A form-based code is a type of zoning intended to encourage, preserve, and restore high-quality public spaces, with a primary emphasis on the physical form of the built environment. Form-based codes prescribe key physical details that define a community's character. The first step to creating a form-based code is to confirm the community's vision for a specific area. This vision is then translated into new form-based regulations. The vision and code together, when adopted, are used to guide future development in the applicable area.



The community-based vision, which was adopted by Executive Order by Governor de Jongh, included the following big ideas:

- Reaffirm & protect the traditional way of building
- Transform the waterfront into the finest public space in the Caribbean
- Make walkability the first priority in design
- Control the scale, small is beautiful
- Bring town to life at night & foster overnight stays
- Embrace our diversity & improve quality of life for all

The goal for The Town's Blueprint planning effort was to create a new Form-Based Code (FBC) District that could be carefully applied in selected areas throughout the Territory. The historic core of Charlotte Amalie was selected as the first "pilot" area to test this approach; if desired by the community, similar visioning processes and form-based code districts could be applied in other towns and settlements in the USVI in the future.

This CLWUP embraces the vision set forth by the Town's Blueprint, acknowledging this document will be used as guidance for future land use decisions in this area. While the Town's Blueprint study was, and continues to be, highly regarded and an important reference for ongoing implementation, the FBC District has not yet been adopted. This CLWUP document will serve to elevate the need to continue with this effort and adopt the pilot district for Charlotte Amalie.

*Much of this text is adapted directly from *The Town's Blueprint* document (December 2011).

Left: The Town's Blueprint summary report

Above: Community input meetings generated the ideas for the Town's Blueprint.

Right/Below: Report illustrations show how new buildings on vacant sites can follow design precedents established by other cherished buildings in the neighborhood.

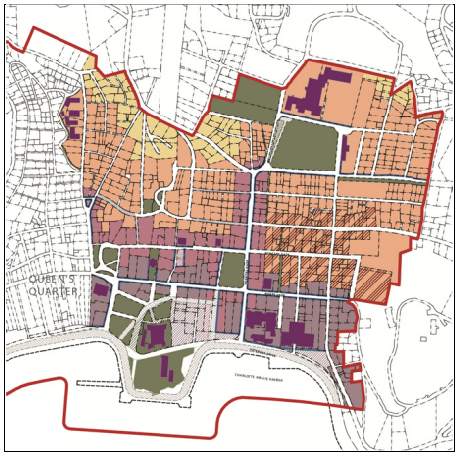


Fig. 10.703.4 – Regulating Plan Highlighting King's Quarter

Regulating Plan notes:

1. Property lines are approximate, and shall be verified at time of application by survey.
2. Proposed civic spaces are new public open spaces identified in the Town's Blueprint Illustrative Plan; in cases where these lots are under private ownership, the underlying sub-district standards may apply until the lot is utilized as a public space.

FINAL DRAFT – 12/12/2011
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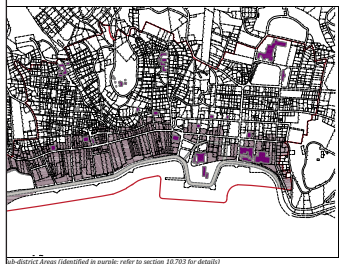
Above/Right: The draft code includes a Regulating Plan and Architectural Standards to shape future development according to the community vision.

10.704.A Town Center Sub-district

The Town Center Sub-district is Charlotte Amalie's most intense and commercially-oriented area. This Sub-district contains many of historic Charlotte Amalie's most recognizable tourist destinations, as well as offices and businesses that serve residents throughout St. Thomas.

The Town Center Sub-district allows a mix of commercial, office, entertainment, and residential uses, and features primarily attached buildings. Multi-story buildings are designed for changing uses over time. Walkability should be greatest in this zone, with widest sidewalks, ample on-street parking, buildings located to form a continuous, consistent streetwall, and shade from awnings, overhead balconies, or street trees. Parking may be located on-street or in a centralized location, within easy walking distance of shops and businesses.

Front Build-to-Zone	0 ft to 5 ft *(from front property line)*
Rear Setback	0 ft min. *(from rear property line)*
Side Setback	0 ft min. 5 ft max. *(from side property line)*
Building Height	2 stories or 1 story at 18' min. 3 stories, 53 feet max.
Building Coverage	100% of lot area max.
Frontage Buildout	90% - 100%



ub-district Areas (identified in purple; refer to section 10.703 for details)

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10.706.Q.5 Brick walls may be painted with review and approval of the STT-STJ HPC.

Fig. 10.706.44

Fig. 10.706.45

Fig. 10.706.46

Fig. 10.706.47

10.706.R Stone Detailing

10.706.R.1 All openings in a stone wall shall be spanned at the top by a stone or cast stone Lintel (Fig. 10.706.48). All Lintels shall be slightly wider than the opening they span and shall visually appear able to carry the wall load above.

10.706.R.2 All Lintels shall be a minimum of four (4) inches in height and shall not project from the wall surface.

10.706.R.3 All window openings shall have a sill along the bottom made of stone, cast stone, or wood.

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Red Hook

Red Hook lies on the east end of St. Thomas and, in its commercial core along Vessup Bay, is home to a bustling commercial center fueled by ferry and barge traffic, a busy marina, and related industries like charter vessels and other excursions. The presence of the high school and several government offices maintains a healthy local presence in what could otherwise become an area dominated by the marine tourism industry. DFW is involved in on-going restoration efforts in Vessup Bay and will be building a public boating access point. The concentration of restaurants creates a busy "night life" experience and the main travel route (Emile Milo Francis Memorial Drive) experiences high volumes of both automobile and pedestrian use. Unlike Charlotte Amalie, which requires a suite of economic support tools for local property owners, the role of the USVI government in Red Hook should be more to support and guide the market pressures that already exist to the greatest benefit of locals. Limitations on parking, enforcement of development standards, monitoring water use, challenges to walkability, wayfinding, and general infrastructure upgrades represent areas where government agencies can create positive impacts in Red Hook and improve the day-to-day experience for residents, student, visitors, and business owners.

High volume traffic area with mixed uses in Red Hook, St. Thomas (source: stthomassource.com)

Smith Bay / Emile Milo Francis Memorial Drive

Emile Milo Francis Memorial Drive is a main connection through the Smith Bay watershed, providing important vehicular and transit access to the east end of St. Thomas. The busy thoroughfare is lined by commercial zoning and is home to several small/local businesses. Although there are limited crosswalks and sidewalks, and vehicular traffic is fast-moving, pedestrian activity is fairly high, particularly near the intersection of Coki Point Road. At this intersection there is a small plaza space with local vendors, a nearby ballfield, and a cluster of restaurants and businesses in buildings that are placed close to the street edge.

Smith Bay was the focus of a 2017 watershed management plan that identified six major "opportunities and recommendations" including one which focused on the improvement of stormwater management on public and private properties. This plan provides important context to any improvements, restoration efforts, or regulatory reform moving forward. Located in a low-lying area, there is frequent flooding along the corridor, creating problems for pedestrians and property owners. At the time this plan was developed, the Department of Public Works was planning street improvements to upgrade drainage; this project may also include a sidewalk on at least one side of the street and putting power lines underground.

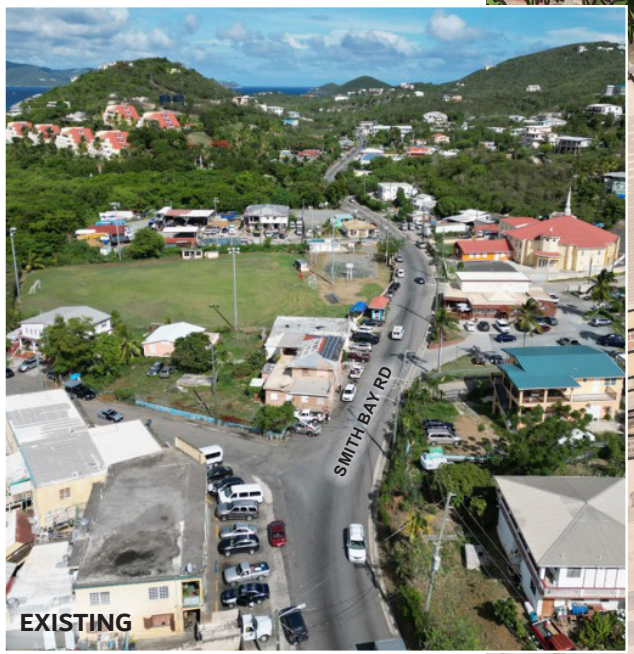
The planning process identified an opportunity to use the upcoming street improvements to broaden the area available for pedestrians and stormwater management (see inset), and to use such enhancements to public infrastructure to inspire private sector investment. Conceptual sketches show one way that the street design could include additional enhancements for walkability, with a widened sidewalk and trees within filter pits where space permits. Future development could include a mix of uses, including affordable housing and services to support the existing community. Additional sidewalk areas / public plazas can be located in front of new/improved buildings to promote walkability.

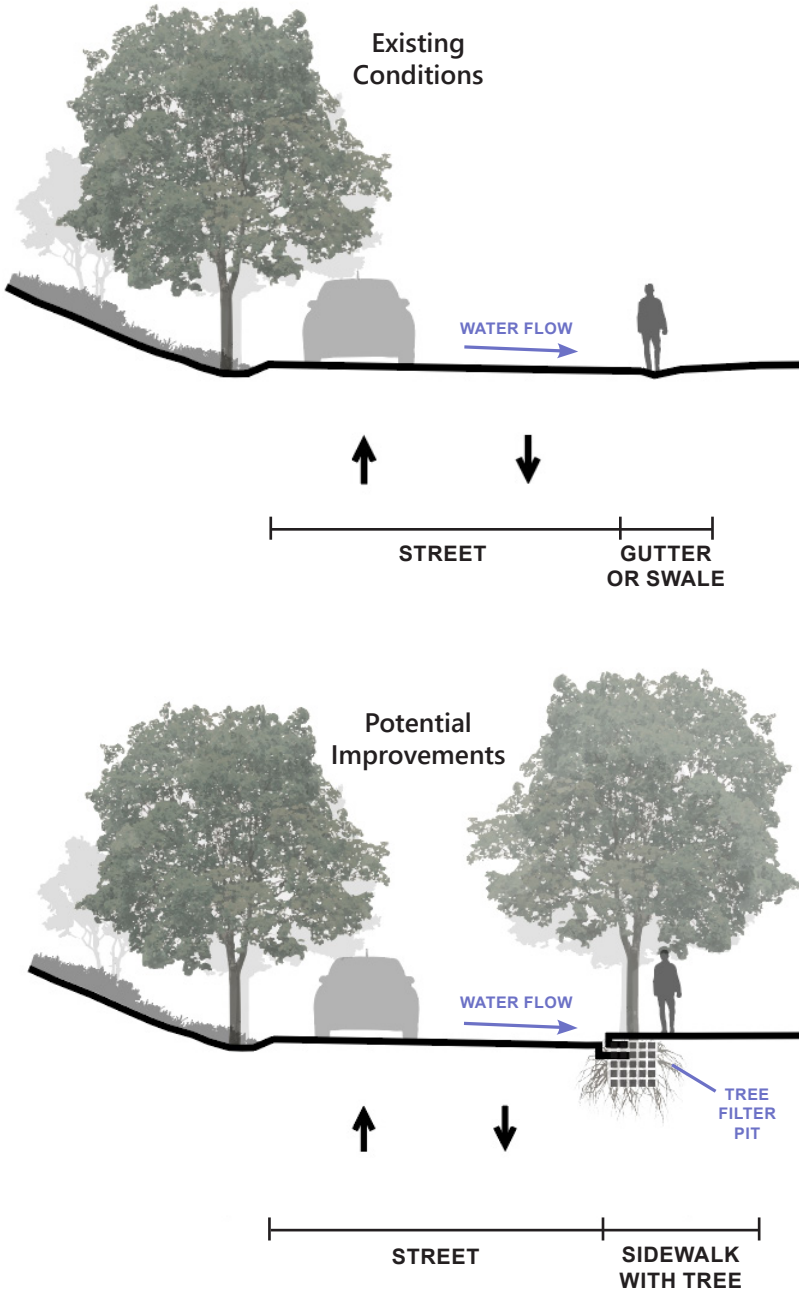
Top: Photo over Smith Bay near the community ball field and Coki Point Road.
Bottom: Pedestrian conditions on Emile Milo Francis Memorial Drive (Smith Bay Road).

Visualizing Change: Smith Bay

KEY IDEAS ILLUSTRATED

- **a** Potential new building; setback provides space for wide planter strip and sidewalk, with parking to the rear
- **b** Street enhancements: underground power and drainage; sidewalk on one side of the road within the right-of-way
- **c** Frontages used for plantings, plaza, sidewalk areas
- **d** Side streets include on-street parking areas
- **e** Bio-swales within community space, stormwater retention under recreation field





SMITH BAY ROAD DRAINAGE IMPROVEMENTS

The planning and design process for improvements to this corridor is an example of how the objectives of two different agencies provide an opportunity for collaboration, resulting in a project design that meets multiple objectives. Using community input from previous planning, a watershed perspective, and a commitment to roadway improvements, DPNR and DPW were able to develop a street design that achieves better drainage as well as better walkability. The current design can also be improved over time with additional amenities in a manner that will not require a complete overhaul.

Left: Conceptual street cross section for Emile Milo Francis Memorial Drive (Smith Bay Road). Recently proposed roadway improvements by DPW include underground stormwater conveyance and potentially a sidewalk on one side of the road. Additional livability improvements (shown here) could include street trees in tree filter pits within the sidewalk zone.

St. Thomas East End Reserves (STEER)

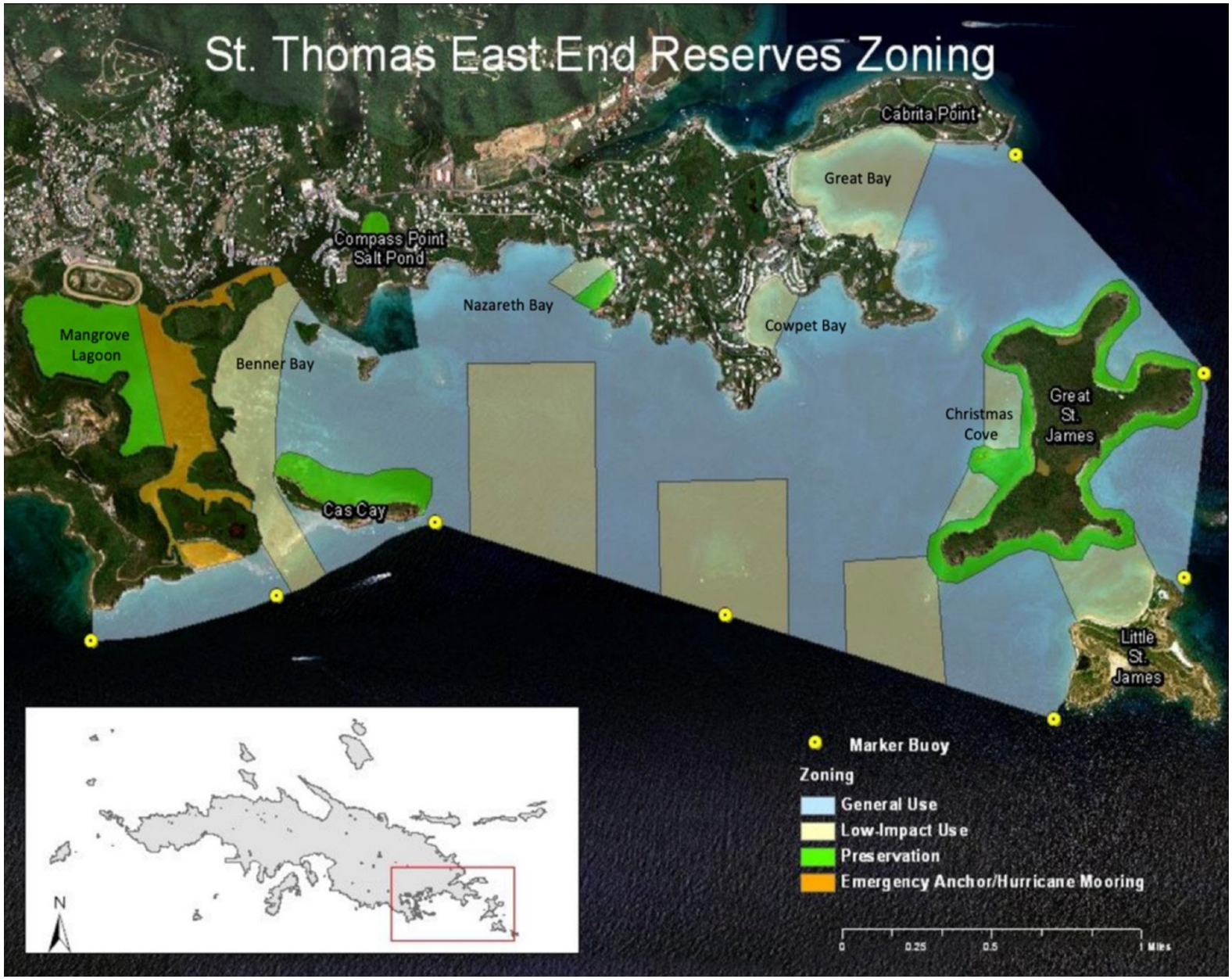
STEER represents the collective area of Cas Cay/Mangrove Lagoon, St James, and Compass Point Marine Reserves and Wildlife Sanctuaries (MRWS). Unlike STXEEMP (see St. Croix Chapter), STEER is not officially designated as a unified Marine Park under USVI legislation, but rather relies on the protections associated with the separate MRWS areas. Core documents for planning around the future health of this area include the *St. Thomas East End Reserves Management Plan* developed in in 2023[1], which focuses on the marine environment. For the landside focus, there is the *St. Thomas East End Reserves Watershed Management Plan* (May 2013). Taken together, these two documents provide a holistic management framework for STEER resources and reflect the watershed perspective that is central to this Plan. As land planning and resource protection efforts continue to evolve at DPNR and with their partners (e.g., NOAA, UVI, and others), coordination of watershed and marine resources should continue and be strengthened in their process and final action plans.

1 This 2023 document is an update and evaluation of the original management plan completed in May 2011.

Looking more closely at regulation and enforcement issues, the same layering of designated areas and agencies discussed related to STXEEMP are more complex with STEER because it lacks legislative standing. An excerpt from the most recent STEER Management Plan describes this complexity:

> ***STEER is a co-managed MPA that relies on multiple Divisions within DPNR as well as other government partners to help uphold the VI Code relevant to STEER as well as to achieve protected area management goals and objectives. DPNR Divisions involved in STEER include CZM who is responsible for the management of STEER natural resources, Division of Fish and Wild (DFW) who is responsible for monitoring and assessing fish and wildlife resources in STEER, Division of Environmental Protection (DEP) who is responsible for the preservation and quality of air and water resources, and DEE who is responsible for the enforcement of STEER Rules and Regulations. Local institutional partners include the Department of Public Works (DPW), UVI, and the Virgin Island Waste Management Authority (VIWMA).***

As another potential layer of jurisdiction, the Division of Territorial Parks & Protected Areas was newly established when this Plan was adopted and its role in areas like STEER had not yet been defined. In addition to these layers of jurisdiction, STEER does not enjoy the same legislative standing as STXEEMP, therefore the authority associated specifically with the management plan is unclear. Most notably, STEER's Management Plan establishes zoning with clear use limitations (see image, next page). STEER would benefit greatly by having the complex layers of protection clarified, potentially consolidated, and protected through an act of the Legislature.



Left: STEER (2023) Example zonation to protect through an act of the Legislature (source: dpnr.vi.gov)

The Bordeaux Farming Community

Running parallel to the Plan effort, the USVI Department of Agriculture, in partnership with the Natural Resources Conservation Service (NRCS) performed a watershed assessment for Northwest St. Thomas (NW STT) Watershed, which includes four sub-watersheds: Botany Bay, Dorothea Bay[1], Magens Bay, and Santa Maria Bay. Six of the bays in the watershed are classified as impaired for turbidity and nitrogen, even though these are some of the least urbanized watersheds on St. Thomas.

These watersheds are home to the most concentrated farming community on St. Thomas. Most farms are small land holdings that produce a diversity of fruits, vegetables, poultry, and some livestock (e.g., pigs, cattle, goats). These farms are connected by a network of dirt roads maintained by the USVI Department of Agriculture (VIDA), many of which are difficult to travel and are not equipped with basic utilities (e.g., electric power and water supply. The farms and dirt roads are sources of sediment and nutrients affecting the bays at the bottom of the watershed. The objectives of the watershed assessment included:

- Conduct a comprehensive watershed assessment to improve collective knowledge of watershed conditions.
- Engage with the farming community.
- Better understand the role agriculture plays in nearshore water quality and to identify specific practices that can be implemented by farmers in partnership with NRCS.

While direct engagement with farmers included a small group of individuals, these conversations suggest it is worth continuing a discussion with that community about making these roadways truly accessible with pavement and associated infrastructure. Not only would paved roads and utilities improve quality of life and farm operations, this accessibility could provide more direct connections between farmers and consumers seeking produce and meat from traditional, local operations. Further, fully accessible roadways can include stormwater management infrastructure that will protect these areas from flooding and improve water quality. Importantly, if this vision is pursued, regulatory tools would need to be in place to ensure greater access to the area does not lead to displacement and further environmental degradation. An extension of the current lease and infrastructure improvements would be accompanied by land use restrictions that ensure the protection and continued viability of the farming community.

1 The Dorothea Watershed is also included in DPNR's study of nine watersheds funded through the Federal Emergency Management Authority (FEMA) Hazard Mitigation Grant Program (HMGP) in 2019.

Northside

Northside is historically a fishing and farming community on the Atlantic Ocean side of St. Thomas. The area has a rich cultural identity rooted in its French heritage, with many early residents having emigrated from Saint-Barthélemy (St. Barts). In 1976, the Hull Bay Archaeological District was established noting the existence of archaeological (pre-colonial) and historical resources from the period of early Danish colonization. Over time, immigration has diversified the community's demographic composition, but a Northside community identity remains cohesive. This cohesion revolves around key locations such as the bays, the local church, long-standing establishments, and the ability to drive and meet people. Hull Bay has traditionally served as the community hub.

Geographically, Northside spans from Crown Mountain, the highest point on St. Thomas, down to Hull Bay and Magens Bay. From a watershed perspective, the Dorothea Watershed occupies the greatest percentage of the Northside land area and, at the time this Plan was drafted, this watershed was under study through DPNR. Observations in the early stages of watershed planning and feedback from residents show that Northside has a varied landscape with some highly developed areas along with a few large tracts of undeveloped natural lands. The area is characterized by steep roads, many of which are narrow dirt roads with no sidewalks making walking unsafe. The lack of proper drainage systems and regular debris removal has led to not only the deterioration of roads but also the accumulation of debris along the roads and in the bays. Poor drainage often makes these steep roads hazardous, with water runoff posing a significant danger to drivers.

In addition to issues related to drainage, the Northside community feels the impact of poorly managed solid waste management. Regarding wastewater management, this area includes a series of neighborhood scale wastewater treatment facilities that can potentially operate more effectively than OSDS due to the geologic and topographic constraints. However, feedback from residents suggests these systems are in need of maintenance.

This confluence of issues in Northside provides one of many examples in the USVI of where high-quality watershed management will not only provide environmental benefits, but also significant quality-of-life benefits for residents. For example, well designed and maintained roads will not only be essential to the restoration of water quality but will provide safe travel ways for residents to reach the important places that bring people together and foster community cohesion. Further, future assessments of zoning districts, viewed through the lens of watershed health, will likely show that performance standards and innovative tools will be needed to protect undeveloped areas while maintaining land value for owners (see *Best Practices In Zoning* page 21). This example from Northside is applicable to many other areas along the north end of St. Thomas, including the coasts and inland areas of Mandal Bay, Tutu Bay, Sunsi Bay, and beyond.

ACTIONS FOR ST. THOMAS

In addition to the Territory-wide strategies provided in previous sections, specific strategies for St. Thomas are described below. As a reminder, these strategies for St. Thomas do not stand alone. A lot of the issues that the people of St. Thomas wanted this plan to address, from regulatory reform, to natural resource protection, to public services and facilities, are addressed in the Territory-wide strategies.

LIMITED LAND AREA

- Perform a detailed inventory of both public and private land that can help meet community needs and facilitate construction practices on St. Thomas. For private lands, identify incentives and agreements that will produce revenue for the owners.

TUTU PARK MALL

- Work directly with property owners to develop a vision for future development which clarifies the extent to which any government incentives are required to achieve the vision.
- Apply stormwater management standards that recognize the watershed context, protecting the headwaters area of Turpentine Run gut and the marine resources in STEER.
- Establish form-based design standards to support a new mixed-use center that includes improved walkability, connectivity, a range of housing types, resilient infrastructure, and usable open spaces.

CHARLOTTE AMALIE

- Establish a direct, dedicated assistance program through the USVI Economic Development Authority that is place-based and includes a paid coordinator with experience in community development, grant writing, and project management.
- Review, revise as needed, and adopt the Charlotte Amalie Form-Based Code (FBC) District set forward in *The Town's Blueprint, A Vision & Code for Historic Charlotte Amalie*.
- Establish a government program that funds qualified attorneys for on-call, client-based probate and estate planning related services.
- Continue extensions and improvements to the Veteran's Drive walkway park, including climate resilience and adaptation to sea level rise.
- Develop a long-term, targeted flood management study that models flooding under various storm scenarios (factoring in climate change) and establishes a long-term management plan.

RED HOOK

- Perform an intensive study of the public realm, updating past studies and filling in gaps with new analysis as needed, to identify where improvements should be made for walkability, signage/wayfinding, and transit infrastructure and service.
- Identify a site for additional structured parking, develop conceptual designs, and calculate cost estimates.

SMITH BAY

- Continue implementation of the *Smith Bay Watershed Management Plan*.
- Prioritize acquisition of land that can be integral to mitigating drainage problems.
- Look for opportunities to build upon planned drainage improvements by including enhanced walkability elements (sidewalks, street trees) and walkable design standards for new buildings along the Emile Milo Francis Memorial Drive corridor.

STEER

- Establish STEER as a Marine Park through an act of the Legislature.
- For the newly established Marine Park, clarify the role and jurisdiction of different agencies. Consider consolidating some of these roles where it creates clarity, strengthens administration, integrates with near-shore permitting, and facilitates enforcement.

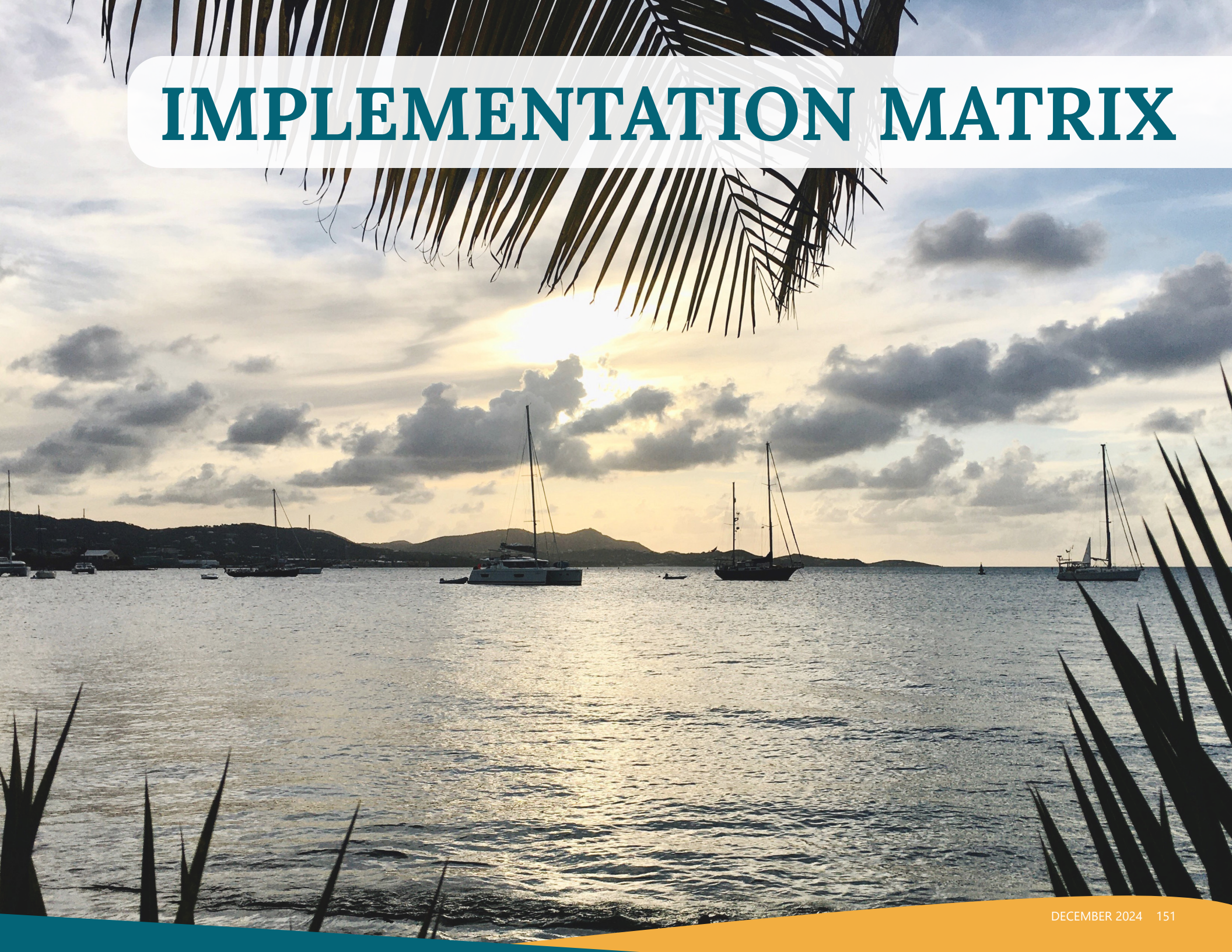
BORDEAUX FARMING COMMUNITY

- Continue direct engagement with the farming community to determine whether there is interest in providing more infrastructure to the area.
- If there is interest:
    - Clarify the vision of how this area would function relative to farming, housing, and infrastructure.
    - Identify how this vision would leverage greater watershed health and better water quality in the bays.
    - Coordinate the installation of roads, drainage, and utilities (including agrivoltaics for small crops that may require shade) across all applicable agencies and develop a roadway management plan tailored to the use of the land and water quality goals of the watershed.

NORTHSIDE COMMUNITY

- Use a watershed framework to implement an organized and strategic improvement initiative related to roadway improvements, flood reduction, solid waste management, wastewater upgrades, and regulatory reform.
- Identify and pursue grant opportunities for the implementation of infrastructure improvements in this community.

IMPLEMENTATION MATRIX



The following Implementation Matrix serves as the framework for executing the CLWUP and summarizes the Goals, Policies, and Strategies from the Territory-wide portion of the CLWUP as well as the strategies identified in the sections for the three main islands. Adoption of the CLWUP by the USVI Legislature signifies the endorsement of this Implementation Framework. Adoption of the CLWUP also empowers DPNR to act as the steward for this Implementation Framework and requires DPNR to develop, and periodically revise, a more detailed Implementation Program. The Implementation Program will be designed to achieve actions from the CLWUP and, accordingly, may provide detailed work plans, funding targets, staffing plans, detailed studies, estimated implementation costs, legislative proposals, and other similar material that will guide the actions of DPNR, and any partners, toward completion of a particular strategy. The Implementation Program may also identify short-term priorities, critical path milestones, important community engagement opportunities, and other process-related guidance.

DPNR, acting as the steward of the CLWUP, is empowered to adjust the Implementation Framework when doing so more effectively achieves the desired outcome for a particular policy or strategy. For example, where shifting a timeline, changing a responsible party, or adding partners might better reflect emerging opportunities in the USVI, DPNR may incorporate these changes into its Implementation Program. DPNR may not, through its Implementation Program, change the overarching goals or policy directions of this Plan. That power is reserved for the Legislature and would require a formal amendment to the CLWUP.

DPNR is also empowered to request updates from any agency or organization listed as a Lead or Partner for a strategy, in order to ensure progress and partnerships and to provide periodic Plan implementation updates to the government and to the public. Per 3 VIC 402(a), the Assistant Commissioner of DPNR has the authority to serve this role.

Acronyms Used for Lead Parties and Potential Partners in the Implementation Matrix

CCZP	Division of Comprehensive & Coastal Zone Planning	OLG	Office of the Lieutenant Governor
CIVIC	Civic Groups with Particular Interest and Expertise	OMB	Office of Management & Budget
CZM	Coastal Zone Management	OPP	Office of Property and Procurement
DBP	Division of Building Permits	SECAS	Southeast Conservation Adaptation Strategy
DEE	Division of Environmental Enforcement	SHPO	State Historic Preservation Office
DEP	Division of Environmental Protection	TPPA	Division of Territorial Parks & Protected Areas
DFW	Division of Fish & Wildlife	UVI	University of the Virgin Islands
DLCA	Department of Licensing and Consumer Affairs	VIDA	Virgin Islands Department of Agriculture
DOP	Division of Personnel	VIDE	Virgin Islands Department of Education
DPNR	Department of Planning and Natural Resources	VIDOL	Department of Labor
DPW	Department of Public Works	VIDOT	Virgin Islands Department of Tourism
DSPR	Department of Sports, Parks & Recreation	VIHA	Housing Authority
EDA	Virgin Islands Economic Development Authority	VIHFA	Housing Finance Authority
EPA	United States Environmental Protection Agency	VIPA	Virgin Island Port Authority
LEG	USVI Legislature	VITEMA	Virgin Island Territorial Emergency Management Agency
LFFC	Local Food & Farm Council		
NOAA	National Oceanic and Atmospheric Administration	VITRANS	Virgin Islands Transit
NPS	United States National Parks Service	WAPA	Water and Power Authority
ODR	Office of Disaster Recovery	WMA	Waste Management Authority

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 1: Land and water use decisions will be based on sound planning.				
Policy: Strengthen the capacity of government agencies to create strategic, actionable plans.				
Strategy: Create, fund, and execute a staffing plan for government agencies that will provide the level of expertise and workforce needed to achieve this Plan's vision. Consider options such as:				
• Create hybrid work opportunities including remote positions to provide services that do not require a full-time presence.	DPNR		2	1 then ongoing
• Offer term-limited individual assignments/contract jobs to achieve specific goals/ objectives.	DPNR		2	1 then ongoing
• Create a Caribbean-based specialized work-sharing and relevant trade capacity building program through vocational school and UVI.	DPNR	UVI	4	2 then ongoing
Policy: Create a framework for implementing, maintaining, and updating this Plan that stays in place from one administration to the next.				
Strategy: Institute a mandatory process that engages the community to review and evaluate the Plan annually and update it at 5- to 10-year intervals. Place this in the DPNR Implementation Program.	CCZP	CZM	1	1 then ongoing
Strategy: Reform the procedures for zoning changes and variances to ensure decisions are consistent with this Plan.	LEG	CCZP, CZM	1	2
Goal 2: Government agencies will have the capacity to perform all duties related to land and water use, including enforcing laws effectively, consistently, and transparently.				
Policy: Build capacity so Divisions/Departments can operate effectively.				
Strategy: Adopt government budgets and procedures that ensure wages are suitable to skills and capacities as well as living costs on the different islands.	OMB	DPNR	1	4 then ongoing

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Provide funding for training, facilities, and equipment needed to have adequate enforcement capacity on each of the three major islands for all regulatory Divisions. Prioritize establishing a strong presence for DPNR and all enforcement agencies on each of the three major islands. This would include accessible office space, permanent staff, boats and vehicles, equipment, and storage facilities.	DEE, CZM, CCZP, DEP, DBP, DPW		2	10
Strategy: Create continuous education and certification plan for all enforcement staff, with an emphasis on functions related to interfacing with the public, educating, reviewing, and processing permits, and compliance/enforcement.	DOP	DEE, CZM, CCZP, DEP, DFW, DBP, DPW, DLCA	3	1 then ongoing
Strategy: Create a grant writer/administrator position that can support all the divisions within DPNR in identifying grant opportunities, coordinating applications, and taking care of grants management and reporting.	DOP	DPNR	1	1 then ongoing
Strategy: Develop and adopt transparency and customer service protocols, process timelines, and resources, to better serve the public. For example:	DOP	DPNR, DPW	2	2 then ongoing
• Regularly review and update Territory web pages to ensure the most needed information is prominently displayed	Webpage Admin	DPNR	2	1 then ongoing
• Map out the permitting process and opportunities for the public to comment on proposals. Train staff to guide people through these processes	CCZP, CZM	DBP	1	1 then ongoing
• Provide resources and establish community protocols to proactively reach out to populations that do not tend to participate in the process to make it welcoming and transparent for everyone	DPNR		1	2 then ongoing
• Dedicate more time for existing staff to work with the Territory's public communications staff on public education and information campaigns related to key issues in this Plan.	DPNR, DOP	UVI, VIDE	1	2 then ongoing
Policy: Ensure fees and violations are commensurate with current economic conditions, the complexity of projects, and the severity of violations.				
Strategy: Design a permit fee structure that supports the administrative infrastructure to manage, enforce, and revise policies to bring lasting change. Provide resources for departments to periodically review and amend fees.	CCZP, CZM, DBP, DPW		1	2

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Revise the penalty structure associated with violations to ensure penalties are fair, but also severe enough to provide incentive for compliance.	DEE	CZM, CCZP, DEP, DFW, DBP, DPW	3	ongoing
Strategy: Implement an administrative penalty process that keeps violation processing within regulatory agencies and limits court proceedings to criminal prosecution.	DPNR, LEG		2	2
Goal 3: The USVI will have an open, transparent, and coordinated regulatory process that allows for more effective local input/representation.				
Policy: Adopt a system of regulatory review and decision-making that operates locally on each of the major islands, transferring many of the current land and water use responsibilities of the Legislature to local authority.				
Strategy: Establish local planning and/or zoning boards (or a similar structure) empowered to review (approve or deny) development applications, review (approve or deny) applications for zone changes or variances, and other responsibilities related to permitting consistent with the Plan.	CCZP, CZM	CIVIC	1	4
Strategy: Ensure equitable representation on local boards by residents of the three main islands and provide training and education to members that foster objective and streamlined permit application review.	CCZP, CZM	CIVIC	1	4
Strategy: Establish a consistent process and clear criteria for approving zoning amendments and variances in order to hold local boards accountable by developing a system for transparency, consistency, and predictability in Plan implementation and zoning enforcement.	CCZP, CZM		1	4
Strategy: Maintain a clear process of appeals, especially where the structure of permit review may be shifted to a local authority.	CCZP, CZM, LEG		1	4
Strategy: Expand and/or better advertise the avenues for residents to engage directly in the process. Develop a public education campaign to inform the public on how and when to participate in public hearings, how to report on non-compliance or violations, etc	CCZP, CZM		1	1

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 4: Perform a comprehensive, multi-year reform of land regulations related to land and water use.				
Policy: Ensure that existing USVI law is consistent with the goals and policies of this Plan.				
Strategy: Conduct an analysis of existing USVI law to see where the law already supports or furthers the proposed strategies in this Plan and where there may be conflicts.	CCZP, LEG	UVI	1	2
Policy: Create a more consistent and complementary permitting approach for land development and marine area use from ridge to reef that takes into account the ecological connectivity across each island, minimizes environmental impacts, and improves environmental conditions whenever possible.				
Strategy: Eliminate or significantly reform the two-tier permitting system and adopt a system that provides the appropriate level of permit scrutiny regardless of which Tier applies.	CZM. DEP	CCZP	1	2
Strategy: Review regulatory reform proposals to ensure there are no undue burdens on projects that—by virtue of location, size, or description—will have minimal environmental or neighborhood impact or that are proactively designed to improve environmental conditions.	LEG	CZM, CCZP	1	ongoing
Policy: Reform the Zoning Code to meet the goals of this Plan and provide a durable yet flexible place-based framework that minimizes the need for variances and zoning amendments.				
Strategy: Develop a Future Land and Water Use Map that will help guide decisions related to rezoning and the application of contemporary regulatory tools. The map will generally identify areas suitable for different types of development and uses, areas most in need of conservation, and areas that should be targeted for restoration and regeneration, both on land and water.	DPNR, LEG	CIVIC	3	5
Strategy: Develop criteria and/or performance outcomes, as objective as possible, that must be considered when reviewing applications for variances and zone changes.	CCZP, CZM	LEG	1	1

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Reform existing processes to streamline complex permitting situations. For example:.				
• Remove loopholes in the regulations that allow applicants to segment projects over time in order to have development reviewed at a lower level scrutiny and leverage prior approvals for future approvals.	CCZP, CZM, DEP	CIVIC	1	1
• Strengthen the review of marina applications to ensure a coordinated review of the land side and water side elements across multiple agencies.	CZM	LEG	2	2
• Projects that straddle more than one zoning district or permit tier should have clear guidance on which standards apply.	CCZP, CZM, DEP	LEG	1	1
• Identify where permits for subdivision, zoning, earth change, and other jurisdictions can be consolidated.	CCZMP, DBP, CZM, DEP	LEG	1	3
Goal 5: Establish a state-of-the-art data system to support decision-making and communication regarding land and water use.				
Policy: Provide resources for consistent and detailed data collection on land development activities.				
Strategy: Add a Data Division to DPNR that will oversee the development, maintenance, and sharing of data in an accessible and transparent manner across all government departments.	DPNR	OLG	2	3
Strategy: Establish a publicly accessible Territory-wide GIS mapping system and regularly update data layers for zoning, natural resources, historic resources, infrastructure, and other important key data with local and federal entities, so users can compare layers for broader understanding of the trends and dynamics that exist in any given area.	DPNR	UVI	2	5 and ongoing
Strategy: Finalize the implementation of the Territory's e-permitting system, making public data more easily available online.	DPNR		1	1
Strategy: Expand or supplement the Territory's e-permitting system to provide easily accessed information on enforcement actions.	DPNR		2	2

Making Better Land & Water Use Decisions	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Policy: Invest in data development and collection related to cultural and historical resources.				
Strategy: Digitize and catalogue historical documentation including, but not limited to, oral histories, photographs, maps, and hard copy primary sources.	SHPO	CIVIC	2	5 and ongoing
Strategy: Support UVI and civic institutions as they actively engage in the development of new data. Integrate these data into shared platforms as they become available. Support can include redundant data storage, staff support, project collaboration, and grant partnerships.	DPNR	SHPO, CIVIC	2	ongoing

Protecting Our Natural Resources	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 1: Manage and regulate land use to protect and improve watershed health and the natural water cycle.				
Policy: Evaluate development proposals from a watershed management perspective to account for the connection between upstream development and downstream adverse impacts.				
Strategy: Complete and continue to update the DPNR Watershed Management Plans for the entirety of the three main islands. The efforts related to the most recent multi-island study (nine watersheds) can be used as a model for a consistent approach, yielding management plans tailored to each watershed. Coordinate the findings of Watershed Management Plans with the updating and implementation of management plans for Areas of Particular Concern (APCs).	DEP, CZM	UVI, CIVIC	2	ongoing
Strategy: Adopt and continually update standards for site design that steer development away from environmentally sensitive areas or places susceptible to adverse impacts and proactively enhance environmental conditions when possible.	CCZP, CZM, DEP	DFW, DPW	2	2
Strategy: Formalize a comprehensive set of development performance standards to make sure new development and redevelopment has minimal impact on and, where possible, restores and improves the surrounding environment and accounts for potential impacts to resources downhill and downstream, including into coastal and marine environments.	CCZP, CZM, DEP	DFW, DPW	1	4
Policy: Protect and become better stewards of groundwater resources through data collection and development policy.				
Strategy: Invest in ongoing baseline study of groundwater aquifer characteristics throughout the Territory.	DEP	CCZP	2	10
Strategy: Develop and fund a system for ongoing monitoring of groundwater levels (i.e., elevation) and water quality.	DEP	CCZP	2	10
Strategy: Develop a water use plan for each aquifer and provide tools and resources for staff to effectively monitor and preserve the islands' groundwater resources.	DEP	CCZP	2	5

Protecting Our Natural Resources	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Continue to update regulations related to both stormwater management and wastewater disposal that are practical for USVI conditions and protective/ restorative to groundwater supplies.	CCZP, CZM, WMA, DEP	DFW, DPW, CIVIC	2	5
Strategy: Through GIS mapping and conversations with stakeholders with local knowledge, identify former and current pond sites and assess the feasibility and environmental impacts of re-establishing them.	VIDA	CCZP, CZM	2	5
Policy: Require best practices in site development and landscaping techniques to manage pollution from roadways, stormwater runoff, septic waste, and wastewater effluent.				
Strategy: Continue to update and apply the *US Virgin Islands Environmental Protection Handbook* to new development applications for the purposes of stormwater management and erosion control.	CCZP, CZM, DEP	DPW	2	ongoing
Strategy: Develop comprehensive guidelines for new driveway construction in different conditions, with an emphasis on steep slopes, to minimize water and pollutants leaving the property and entering the driveway and public roadway.	DPW	CCZP, CZM	1	1
Strategy: Implement the Onsite Sewage Disposal Systems (OSDS) related recommendations from the Coral Bay study and replicate/expand the testing of innovative OSDS on St. Thomas and St. Croix.	WMA, DEP	CIVIC	3	5
Strategy: Provide training and guidance to designers and contractors on the techniques needed to meet development standards and the maintenance needs for different practices. Consider the development of formal credentials for training as an incentive, which would give preference for public contracts.	CCZP, CZM	WMA, DEP, UVI, DLCA	3	2
Strategy: Require a clear path forward for contaminated sites that includes detailed plans for remediation developed and executed by licensed remediation professionals in compliance with EPA regulations. Ensure regular communication of risks and progress to surrounding neighborhoods.	DEP	CCZP, CZM	1	ongoing

Protecting Our Natural Resources	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 2: Manage and regulate coastal and marine water use in a way that protects and improves public health, ecological systems, and economic well-being.				
Policy: Build capacity to enforce and improve regulations that protect against environmental degradation, sedimentation, and illegal boating, anchoring, mooring, and fishing, and other behaviors harmful to marine resources, while also encouraging the restoration of the environment through responsible boating and fishing.				
Strategy: Ensure adequate and sustainable funding for staff, boats, and equipment to effectively and consistently enforce existing regulations in bays and coastal marine areas within USVI jurisdiction.	CCZP, CZM	LEG, DFW	2	10
Strategy: Improve and implement existing plans for marine protected areas and identify other potential locations for protection, with an eye toward habitat regeneration.	CZM, DFW	CCZP, DFW	3	7
Strategy: Update and implement management plans for all Areas of Particular Concern (APCs).	CZM, DFW	CCZP, CIVIC, DFW	3	4
Strategy: Clarify the role of different protection areas (e.g., APCs, Marine Parks, Marine Management Plans, Wildlife and Marine Sanctuaries) and potentially consolidate some of those.	CZM, DFW	LEG, DFW	1	2
Strategy: Develop clear maps and signage for all bays and coastal marine areas that identify allowable activities and intensities of use in those areas. Use the STXEEMP zoning as a reference and the pilot bay assessment study from DPNR as a starting point.	CZM, DFW	UVI, CIVIC, DFW	4	3
Policy: Pursue the preservation of land that will provide greater protection of critical natural resources.				
Strategy: Develop a formal system to evaluate, rank, and prioritize parcels of high conservation value for inclusion in the VI Territorial Park system. Utilize data-driven metrics, including the most recent iteration of SECAS Blueprint GIS data for the Territory.	TPPA, CCZP, CZM	UVI, CIVIC, SECAS	2	1

Protecting Our Natural Resources	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Prioritize lands for conservation and remediation that are adjacent to existing vulnerable coastal natural resource areas to allow for inland migration of wetlands, shorelines, and beaches as sea level rise occurs.	CZM, DFW	TPPA, CCZP CIVIC	2	ongoing
Strategy: Revisit and revise development and setback standards to better protect/ enhance public access and public spaces like shorelines and beaches, which are threatened with shrinkage, loss of connectivity, or total loss due to coastal erosions.	CZM, DFW	CCZP	1	2
Goal 3: Adopt a comprehensive, practical system of guidance and regulation that protects sensitive terrain and specific natural features.				
Policy: Develop a more effective system of regulations and enforcement for the cays				
Strategy: Provide funding for adequate staff and boats to patrol, inspect, and enforce regulations on and around the cays.	DEE	DFW, CZM, LEG	2	10
Policy: Develop clear standards and guidance for protecting and restoring guts, wetlands, and mangroves.				
Strategy: Adopt protective buffers to these resources and specific development standards within those buffer zones.	CZM, DFW	CCZP	2	2
Strategy: Strategy: Reestablish a relationship with the U.S. Geological Survey (USGS) to install and maintain gauge stations in freshwater guts across the Territory, and provide any needed local match. Over the next ten years, rebuild the extensive monitoring program of the past, including a local USGS presence, monitoring of surface water flow and quality and groundwater flow and quality, and production of educational publications for the public. Build toward a 50/50 local/federal match akin to the same program in Puerto Rico.	CZM, DFW	CCZP	1	10
Policy: Develop clear standards and guidance for landscape protection and installation				
Strategy: Prohibit the installation of any invasive species in landscaped areas.	CZM, DEE	CIVIC	1	1

Protecting Our Natural Resources	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Develop a comprehensive landscaping handbook and training, certification, and licensing program for choosing and installing appropriate plant species considering drought-resilient, flood-tolerant, recharge-supporting, native, habitat-building, and/or non-invasive species.	CCZP	CIVIC, UVI, DLCA	2	2
Policy: Develop clear standards and guidance for protecting beaches and other coastal features.				
Strategy: Identify coastal areas vulnerable to erosion and inundation using the *Hazard Mitigation and Resilience Plan* and the *Coastal Vulnerability Index*, and make this information easily accessible to the public.	CZM	CCZP	2	1
Strategy: Set standards for these areas that include considerations for buffers and accommodations for inundation and beach, shoreline, and mangrove migration inland in response to sea level rise to maintain beach accessibility and connectivity.	CZM	CCZP	2	1
Strategy: Explore mechanisms for adopting formal conservation areas for the coral reef restoration sites identified in the *U.S. Virgin Islands Coral Reef Restoration Plan*. Integrate this information with management planning for APCs.	CZM	UVI, CIVIC, SECAS	3	2

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 1: Develop and maintain infrastructure that is reliable, resilient, and sustainable.				
Policy: Strengthen the Territory's infrastructure against current and projected climate impacts, including hurricanes, flooding, drought, sea level rise, heat, and others.				
Strategy: Continue to implement resilient infrastructure approaches identified in previous planning efforts, such as the *USVI Hurricane Recovery and Resilience Task Force Report 2018* and other post-disaster recovery efforts. Continue to refine long-term planning for increasing electric energy independence for residences, commercial, and public facilities.	WAPA, WMA, DPW	ODR	1	ongoing
Strategy: Invest aggressively and continue to rebuild a more reliable power grid using on-site power sources, microgrids, battery storage, burying utilities where possible, installing composite utility poles, etc.	WAPA		2	ongoing
Strategy: For all public projects (e.g., schools, parks, other facilities) identify any potential options for integrating energy infrastructure that serves the broader goal of resiliency. For example, identify whether there are areas for battery storage or solar or wind power.	VIDE		1	ongoing
Strategy: Require that all infrastructure planning, construction, and maintenance focus on hurricane and storm damage reduction, prevention of saltwater intrusion, preservation of fish and wildlife, and prevention of erosion.	WAPA, WMA, DPW	ODR, VIPA, VIHA, VIHFA, VIDE	1	ongoing
Strategy: Map and digitize all utility infrastructure in the Territory to better coordinate construction, upgrades, and repair and to better understand vulnerabilities.	DPNR	WAPA, WMA, DPW	3	ongoing
Policy: Reduce reliance on fossil fuels by encouraging energy efficiency and promoting renewable energy sources.				
Strategy: Modernize the grid to enable the uptake of additional renewable power and build several microgrids that can operate independently in the event of power outages.	WAPA	ODR	1	ongoing

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Review and update zoning and other regulations to ensure that renewable energy is not hindered but also is not developed at the expense of existing undeveloped areas or other environmentally sensitive areas. For example, prioritize solar panel installation on rooftops, carport canopies, and agrivoltaics for small crops that require shade, over ground mounted solar facilities that would consume open space, agricultural, or forested areas.	CCZP, CZM	WAPA	1	2
Strategy: Require permit applications to identify end-of-life options for how to dispose of and/or recycle the component parts of renewable energy systems.	CCZP, CZM	WAPA	2	ongoing
Policy: Develop a Territory-wide waste program to reduce litter and landfill deposits, salvage valuable materials, and improve the health of the islands.				
Strategy: Develop an Integrated Solid Waste Management Plan to improve efficiency and effectiveness all around, including better recycling and composting, green waste management, and hazardous waste. Include an analysis of current WMA operations with an eye toward increasing revenue without burdening local residents and small businesses.	WMA		3	3
Strategy: Study options from other island communities to reduce waste and expand the types of materials that are recycled and reused.	CCZP		1	1
Strategy: Develop a more accessible and environmentally friendly network of waste disposal sites on all islands. Expedite planning and implementation of convenience centers and other more formalized, environmentally protected trash disposal and recycling sites on all three islands.	WMA	CCZP, CZM	1	5
Strategy: Provide incentives to reduce waste and expand the types of materials that are recycled and reused, including recycling, green waste, and composting facilities, ideally with at least some capacity to pre-process some of the refuse flows.				
• Provide incentives or require that commercial food waste be composted and reused on-island. Provide free food waste drop off sites for residential customers. Turn food waste into compost that can be sold or given away to local farmers and residents.	WMA	EDA	3	3

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
• Stop sending green waste (yard trimmings, tree branches, leaves, etc.) to the landfills. Expand existing mulch production programs to accept more green waste for mulch production, which can be given away or sold.	DPW	WMA	1	ongoing
• Explore options for incineration and give serious consideration to systems that burn waste while trapping or reusing harmful exhaust and ash.	WMA	CCZP, CZM	2	2
• Provide hazardous waste drop off sites to accept household hazardous waste and waste from small businesses, including tires, gasoline, paints, batteries, fluorescent light bulbs, motor oil, cleaning products, cooking grease, etc.	WMA		2	5
• Institute a tipping fee to accept hazardous waste from larger businesses.	WMA	OMB	2	1
• Explore options for producer responsibility standards, so that manufacturers and/or sellers of products such as paint, mattresses, tires, etc. are responsible for collection, recycling, and reuse of their products sold in the Territory.	WMA		2	2
Strategy: Identify new waste disposal capacity, so that existing landfills may be closed and remediated to reduce contamination, avoid future fires, and potentially be tapped for methane capture.	DPNR, WMA		1	ongoing
Strategy: Identify USVI government owned property on each major island appropriate for the sorting and temporary storage of storm debris. These areas could serve as construction staging areas when not needed for storm debris.	CCZP	OLG, OPP	2	2
Policy: Continue to improve and expand the Territory's public sewer network in a way that will best serve the public, protect the environment, and be secure against climate change.				
Strategy: Oversee the complete sewer network replacement on St. Croix and ensure that funding and permitting is secured for St. Thomas and St. John as well. Continue to work with DPW and other partners to ensure that the timing of this project is coordinated to the greatest extent possible with other utility needs.	WMA	DPNR, WAPA	1	5

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Develop a Future Sewer Service Plan, mapping priority areas for expansion based on high demand from current or future expected development, high need to protect water quality, or identified community needs.	WMA		3	2
Strategy: Identify USVI government owned property on each major island appropriate for staging areas for utility construction. These areas could serve as temporary storage for storm debris as needed.	OPP		2	2
Goal 2: Build capacity for greater sovereignty related to food and water supply systems with appropriate land and water use strategies.				
Policy: Adopt development standards and design infrastructure to treat, store, distribute, and conserve water supplies.				
Strategy: Fund and implement a multi-year project to upgrade the public drinking water supply distribution system, including maintenance and testing of onsite water storage and filtration systems.	WAPA	OMB, LEG	1	8
Strategy: Adopt inexpensive development standards to facilitate lower water use (e.g., drought tolerant landscaping) and encourage on-site water treatment, storage, and conservation strategies, including separating rain, gray, and sewage water streams for processing. Explore mechanisms to provide grants and other assistance to property owners to adopt these strategies.	CZM, DBP	CCZP, CIVIC	1	2
Strategy: Explore opportunities for more water reuse, including capturing more rainwater and stormwater runoff and wastewater reuse, from smaller scale cisterns on residential lots to larger scale retention ponds. Identify where opportunities might exist for reuse, such as for groundwater replenishment, irrigation, agriculture, and drinking water.	DEP, WAPA	DFW	2	ongoing
Strategy: Set standards for establishing new wells and allowable withdrawal volumes based on projected groundwater capacities and establish fines for violations	DEP	CCZP, CZM	2	5 and ongoing
Strategy: Provide funding and government staff/contractors for ongoing voluntary monitoring and testing of private wells, to ensure that water extraction is not having unintended consequences to neighbors and the island's groundwater aquifers and to track the spread of pollutants and saltwater inundation.	DEP		3	1

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Use scientific study to identify areas where structural diversions may be used to create emergency water access and/or supplies for agricultural operations.	DEP, CCZP	VIDA	2	10
Strategy: Identify land that is favorable for future desalination facilities. Preserve these parcels and perform feasibility studies for future distribution systems	WAPA	EDA	4	2
Strategy: Provide support for terracing and slope stabilization for agricultural operations.	VIDA	EDA	2	3 and ongoing
Policy: Use land and water use policies to create greater food sovereignty across the USVI.				
Strategy: Revise zoning regulations to ensure all elements of a self-contained food system can be established in appropriate areas. This includes growing, processing, storing, distributing, sales, food service, and waste management for both farm and fishery products. The USVI Agricultural Plan provides a detailed list of regulatory recommendations that should be used as the foundation for a multi-year reform project.	CCZP, CZM	VIDA, CIVIC, LFFC	2	1
Strategy: Revise zoning regulations to enable 21st century agricultural and aquaculture practices in both indoor and outdoor environments, and also at scales as small as single residential properties.	CCZP, CZM	VIDA, CIVIC, LFFC	2	1
Strategy: Evaluate government-owned land to identify parcels that may be strategically located and suitable for growing, food processing, and long-term food storage facilities.	OPP, VIDA	CCZP, CIVIC, LFFC	2	2
Strategy: Consider the use of agricultural overlay zones that provide strong incentives for using lands suitable for agricultural use as active farming operations and waters suitable for commercial and subsistence fishing.	CCZP, CZM		2	1
Strategy: Invest in the development of a data system, including staffing, that tracks agricultural and aquacultural/fishery use and production in a manner that can address the benchmarks identified in the *USVI Agricultural Plan*.	VIDA	CIVIC, LFFC	2	5 and ongoing

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Engage with the local farming community to identify accessory business uses that will add income to the farming operations and are appropriate in the context of the surrounding neighborhoods	VIDA, LFFC	CCZP, CIVIC	1	2
Strategy: Implement and continue to refine "Additional Recommendation I" from the *USVI Agricultural Plan*, related to developing a comprehensive irrigation system and water supply. Develop detailed guidance on identifying lands for agricultural ponds, storage tanks, and wells, as well as for permitting and maintaining these facilities	VIDA	CCZP, CZM. LFFC	4	2
Goal 3: Adopt land and water use policies and regulations that anticipate the impacts of the changing climate and strengthen the USVI's ability to meet these challenges.				
Policy: Use the best available data for sea-level rise, ocean, precipitation, temperature change, and other climate change related impacts in decisions about land and marine area use.				
Strategy: Work with federal agencies, UVI, and regional partners to create and maintain up-to-date data related to climate change for purposes of risk management, coastal planning, and development review.	DPNR, UVI	NOAA, EDA	1	ongoing
Strategy: Work with academic, territorial, and federal partners to identify appropriate coastal hazard and climate models that account for the USVI's unique geographic and bathymetric characteristics. In particular, identify hazard modeling approaches that incorporate wave impacts and wave runup in addition to storm surge and sea level rise.	DPNR, UVI	NOAA, EDA	1	ongoing
Strategy: Consider establishing standardized climate change and hazard projections across multiple planning horizons for use by Territorial agencies when making land use decisions (e.g., plan for X-foot of rise by 2050).	CCZP, CZM	UVI	2	1
Policy: Adopt new or improved development regulations that anticipate more frequent and more severe storms, sea-level rise, and coastal erosion, among other climate impacts.				
Strategy: Require the inclusion of relevant data related to natural hazards in development applications and any proposed zone change.	CZM, CCZP		2	1 and ongoing

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Increase DPNR capacity to adequately enforce the current building code, which is intended to reflect the stressors of Category 5 hurricanes.	DBP	CZM	2	5
Strategy: Establish a fixed, mapped shoreline for regulatory purposes, which could be used as a baseline for regulatory setbacks. Options include using the mean high water mark and revising this line at regular intervals (e.g., every five years).	CCZP, CZM	UVI	2	1
Strategy: Establish criteria that can be used to guide redevelopment of structures that were severely damaged by flooding or slope destabilization. For example, criteria could help determine where structures may be built back to their original footprint or whether a site has become too dangerous, and rebuilding is therefore not an option.	CCZP, CZM, DBP		2	2
Strategy: Develop freeboard requirements within the regulatory floodplain that raise the required elevation of a building's lowest floor to a height above the most recent modeling for flood elevation.	CCZP, CZM	UVI	2	1
Strategy: Evaluate options for introducing managed retreat strategies into land and water use planning. For example:	CCZP, CZM	DPW, WAPA, WMA	4	2
• Some communities have implemented rolling easements, which "roll" inland in response to sea level rise and coastal erosion. States and communities have included various restrictions on building or repairing hard armoring within the rolling easement zone.				
• Identify areas where protection, accommodation, retreat, and preservation strategies would be most appropriate given the current siting of critical infrastructure, population centers, and the natural environment. For example, hard armoring may be permitted in "protection zones" but not permitted in "retreat zones."				
• Identify opportunities for buy-back programs to encourage relocation out of high-hazard areas. Such incentives should have income limits to prioritize support for lower-income property owners.				

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Revise the current setback and construction standards for shoreline to reflect site-specific considerations for safety, infrastructure protection, and future access to public spaces including beaches and shorelines. Options include applying an erosion-based setback standard, which assumes specific increases in sea level rise and erosion rates over the lifetime of the structure.	CCZP, CZM	UVI	2	1
Policy: Pursue nature-based solutions, including green-grey infrastructure, habitat conservation and restoration, that increase the long-term resilience of natural systems and provide hazard mitigation benefits to people and property.				
Strategy: Invest in research to identify coral-friendly engineered solutions that may be successful in different marine conditions in the USVI. Consider public/private partnerships as an incentive for pilot implementation projects.	CCZP, CZM	UVI	4	2
Strategy: Develop performance and design standards for green-grey infrastructure and habitat restoration to align with the reliability and risk expectations of traditional construction standards.	CCZP, CZM	UVI	4	2
Strategy: Identify future areas for inland migration of wetland and beach habitat and establish best practices in site design for moving or removing restrictive structures that may prevent inland migration.	CCZP, CZM	UVI, CIVIC	3	2
Strategy: Identify and continue to develop assessment methodology, data, and tools to aid site prioritization for conservation and restoration projects that consider multiple potential social and environmental benefits.	CCZP, CZM	UVI, SECAS, CIVIC	2	2
Strategy: Develop and standardize forest restoration and tree planting protocols that focus on the use of appropriate native tree species and builds in improved drought and fire resistance.	VIDA, DFW	VITEMA	2	2
Policy: Incorporate sea level rise projections into the development of public coastal structures as well as approval processes for private development.				
Strategy: Develop criteria to evaluate proposed projects or policies and address assets already in high-risk areas.	VITEMA	CZM	2	1
Strategy: Update the criteria for designating sites as Areas of Particular Concern for the purposes of coastal zone management to account for future climate projections.	CZM	VIPA, VITEMA	2	1

Preparing for a More Sustainable Future	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy:Consider changes to floodplain requirements to reduce overall flood damage potential and encourage resilient retrofits by amending the substantial improvement regulations. For example:	CZM, CCZP	VITEMA	2	1
• Some communities base their substantial improvements regulations on the cumulative value of improvements over a specified time period.				
• Some communities base their substantial improvements regulations on a lower threshold than the 50% floor established by the National Flood Insurance Program (NFIP).				
Policy: Expand Urban and Community Forestry Programs to increase native tree planting, maintenance, and preservation practices to help provide shade and access to fruit trees per the Community and Heritage Tree Law of the Virgin Islands..				
Strategy: Conduct a comprehensive public tree inventory, which could include data about tree species, tree diameter, planting site characteristics, heritage trees, and empty tree planting sites. Inventory data should be mapped and publicly accessible.	VIDA	TPPA, CIVIC	4	2
Strategy: Develop a long-range Urban Forestry Management Plan that considers future climate stressors and identifies a list of preferred trees and priority areas for public tree planting based on underserved or urban heat island characteristics, including along pedestrian corridors linking shopping and schools with neighborhoods.	VIDA	TPPA, CIVIC	4	2
Strategy: Identify funding sources to support tree planting on private properties and promote opportunities to the community. Require tree planting in new commercial and mixed-use developments and redevelopment, and in parking lots above a certain size.	VIDA		2	1

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Goal 1: Provide access to good and healthy homes for all Virgin Islanders.				
Policy: Reform zoning to encourage a broader range of housing choice at different price points, style preferences, and life stages.				
Strategy: Consider allowing the conversion of existing single-family and two-family dwellings to up to four-family dwellings, including accessory dwelling units, if a property is able to meet performance standards related to parking, infrastructure capacity, etc. and the units are not used as short-term rentals.	CCZP	DBP, CZM	2	2
Strategy: Identify appropriate districts for assisted living and other senior housing types, including multigenerational communities, along a continuum of care as seniors age. Districts where these are allowed should provide residents with easier access to shops, services, and health care.	CCZP	CIVIC	2	2
Strategy: Define smaller-scale multi-family dwellings, such as three- and four-unit dwellings, townhouses, cottages clustered on a single lot, and small-scale apartment buildings, and permit them in zoning districts that serve as a transition from single-family and two-family dwelling neighborhoods to denser neighborhoods and downtown areas.	CCZP	DBP, CZM	2	2
Strategy: Develop performance standards to help determine where taller (more than three stories) residential or mixed-use buildings may (or may not) be appropriate in terms of visual and physical impacts. Performance standards may include driveway design, roadway connectivity and capacity, transit access, walkability/bikeability, parking availability, topography that helps limit the perceived massing of a building, access to public water and sewer, etc.	CCZP	DBP, CZM	2	2
Policy: Reform the probate system to enable families to continue ownership and investment in their properties.				
Strategy: Dedicate funding to engage the services of attorneys and other experts to assist individuals and families maintain their properties and unblock pending probate cases. Build on the existing services currently provided by organizations such as the VI Economic Development Authority and the VI Housing Finance Authority.	EDA, VIHFA	CIVIC	1	2

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Strive to make the probate system easier for individuals to navigate without a lawyer or legal fees. Amend probate laws to make it more difficult for families to succumb to forced sales of properties.	LEG	VIHFA, CIVIC	2	1
Strategy: Dedicate grants, forgivable loans, and/or low-interest loans to individuals or families so they can maintain and renovate their properties during and after the probate process. Make sure such funds are made available up front, rather than on a reimbursement basis, so that individuals and families with limited financial resources may utilize them.	EDA, VIHFA	CIVIC	1	2
Policy: Build and redevelop well-designed public housing that encourages a sense of community and provides important amenities.				
Strategy: Over time, redevelop larger VI Housing Authority properties with climate-resilient design and amenities that provide residents with the support systems they need, such as outdoor play space for children and youth, communal kitchens and gathering spaces, community gardens, day care, and more.	VIHA		2	ongoing
Strategy: Continue to look for opportunities to purchase and renovate existing homes and apartments to add to the inventory of VI Housing Authority properties.	VIHA	OPP	2	ongoing
Strategy: Consider making larger VI Housing Authority properties available to a broader range of household incomes as the inventory of VIHA homes increases, so long as lower-income households who need and want VIHA homes are adequately served.	VIHA		2	ongoing
Policy: Build capacity to permit and develop homes that are efficient, resilient to storms, and use vernacular building design.				
Strategy: Coordinate with UVI and local trade associations to train and certify more building inspectors, and budget for hiring adequate building inspection staff.	VIDOL, UVI	CIVIC, DLCA	2	ongoing
Strategy: Develop a vernacular handbook to guide property owners and architects on traditional building design for the USVI, including the use of local and sustainable materials, passive cooling, water collection, etc.	CIVIC	SHPO, DBP	2	2

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Pair building inspection and code enforcement with concurrent offers of grants, forgivable loans, and/or low-interest loans to property owners so they can maintain and renovate their properties up to these resiliency standards.	VIHFA, EDA, ODR	DBP	1	ongoing
Strategy: Develop educational material that helps remove the cultural stigma associated with "modular homes."	CCZP	VIHFA, CIVIC	1	1
Strategy: Develop island-specific pre-reviewed/pre-approved building plans (including modular homes) and offer streamlined approval for construction. Include site standards needed for the pre-approved building plan to get faster review and approval.	CCZP	VIHFA, CIVIC	2	2
Strategy: Convene EDA, VITEMA, and DPNR with modular home companies to discuss how to remove barriers to installation and establish local manufacturing operations.	EDA, VITEMA, CCZP	CIVIC	1	1
Policy: Explore innovative programs and funding mechanisms for increased levels of affordable home production.				
Strategy: Form and/or expand existing Community Development Financial Institutions (CDFIs) in the USVI with the goal of expanding economic opportunity in low-income communities by providing access to products and services for local residents and businesses.	EDA, VIHFA	CIVIC	2	3
Strategy: Support the establishment of at least one Community Development Corporation (CDC) in the USVI, and ideally one each on St. Croix, St. John, and St. Thomas.	EDA, VIHFA	CIVIC	3	3
Strategy: Consider establishing an Affordable Housing Trust on each of the major islands through existing and/or expanded real estate transfer taxes and/or other funding mechanisms to provide dedicated funding for construction or renovation of affordable housing. Establish advisory committees on each of the three major islands to advise the VIHFA on needed investments.	CIVIC, VIHFA		4	5
Strategy: Dedicate funding to provide forgivable loans and/or tax incentives to owners of rental properties for renovation and maintenance, in exchange for rent control of the property.	VIHFA	EDA	1	2 and ongoing

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Policy: Explore innovative funding and financing mechanisms for affordable home ownership.				
Strategy: Explore options for developing community land trusts on each of the major islands including, but not limited to, trusts managed by a government agency or quasi-governmental agency such as the VIHFA or by local non-profit organizations such a community development corporation (CDC).	VIHFA	EDA, CCZP	3	3
Consider property tax reductions or rebates for properties where the improvements (i.e. the homes but not the land) are valued below a certain threshold and/or for properties that have been owned by family members for a minimum threshold of time.	LEG	VIHFA, CIVIC	2	2
Goal 2: Support strong local economies with land and water use strategies.				
Policy: Pursue the creation of economies of place, creating neighborhoods and destinations with strong, local economic systems.				
Strategy: Remove barriers and create incentives and support programs for the development/revitalization of vibrant mixed-use centers.	CCZP, EDA		2	2 and ongoing
Strategy: Create form-based design standards to shape development in historic and new mixed-use centers. These can be adopted as part of new form-based zoning districts, such as the one drafted for Charlotte Amalie.	CCZP	CZM	3	2
Strategy: Develop "Maker Spaces" (low-cost or free facilities) for small local craftspeople/manufacturers to allow individuals to produce goods to earn a living and that help incubate and grow potential businesses. These may be run by the government, or the government may provide grants or low-interest loans to non-profit organizations to run such spaces.	CCZP, EDA		4	4
Policy: Tailor government initiatives to help maintain local ownership of property.				
Strategy: Form and/or expand existing Community Development Financial Institutions (CDFI) to increase innovative lending options.	EDA	CIVIC, VIHFA	2	3

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Prioritize financial incentives and lending at all levels (from start-ups to mature firms) to locally owned businesses and businesses that guarantee living wage job opportunities for residents.	EDA, VIHFA	CIVIC	1	ongoing
Policy: Target market-based initiatives to build on USVI's competitive and cultural strengths.				
Strategy: Continue to pursue, assess, and revise initiatives related to the industry focus areas identified in Vision 2040.	EDA	CCZP	1	ongoing
Strategy: Continue the pursuit of greater food sovereignty. See Goal 2 under *Preparing for a Sustainable Future*.	VIDA, LFFC	EDA, CCZP	see *Preparing for a Sustainable Future* for more detail	
Goal 3: Elevate cultural resources and institutions across the USVI with appropriate land and water use strategies.				
Policy: Cultivate place-based tourism initiatives, in partnership with the USVI Department of Tourism and others, as part of a sustained economic development strategy.				
Strategy: Support the State Historic Preservation Officer in its efforts to increase territorial awareness and appreciation of historic preservation and encourage appropriate treatment of cultural resources.	SHPO	CIVIC	1	ongoing
Strategy: Partner with, provide resources to, and empower local civic and non-profit groups to secure funding, provide technical assistance to communities, and manage projects that will bolster place-based tourism.	DOT, EDA, CIVIC		1	ongoing
Policy: Ensure proposals for land development account for and enhance cultural resources, including using traditional and culturally recognized building and site design.				
Strategy: Build historic and cultural performance standards into the development review process, with considerations not only for historic structures on a site, but archaeological resources, traditional cultural uses of a property, important old growth heritage trees, etc. Where preservation is not possible, find ways to visually promote and celebrate the history and heritage of the site.	CCZP		2	1

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Improve interdepartmental review to ensure that SHPO determinations are recognized and enforced.	CCZP, DBP, CZM	SHPO	1	2 and ongoing
Policy: Develop incentives and resources, including funding and financing, for preservation and rehabilitation of privately-owned historically significant structures.				
Strategy: Explore the creation of special revolving funds for private archaeological and historic preservation restoration projects. Establish monitoring protocols for these funds to ensure that program standards are enforced, as well as penalties including claw back of funds for violations.	SHPO	EDA	1	ongoing
Strategy: Lobby financial institutions and businesses to provide their dedicated community service grants to non-profit historic preservation organizations.	EDA		1	ongoing
Strategy: Lobby financial institutions to provide low-interest loans to owners of historic buildings used for commercial and residential purposes.	EDA		1	ongoing
Policy: Target land preservation to culturally significant sites that are not protected.				
Strategy: Increase the capacity of the SHPO (e.g. funding, technology, staff) to identify significant archaeological and historic properties within the Territory through an ongoing systematic survey and identification program and work in partnership with the Division of Territorial Parks & Protected Areas to prioritize investments in the preservation of these resources.	SHPO, TPPA	CCZP, CZM	1	ongoing
Strategy: Identify, map, and inventory burial sites/graves and ensure these are flagged and respected through the development review process.	SHPO, TPPA	CIVIC	2	4 and ongoing
Policy: Provide resources for clearly documenting and mapping historical and cultural resources, with the ability to overlay natural resources and infrastructure.				
Strategy: Develop, in coordination with the USVI Public Library System, a collections management plan for the archaeological and scientific collections that are maintained by the SHPO, including the designation of secure archive buildings on all three islands.	SHPO		2	1

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Use technology (GIS, computer-based curation system, digital records, etc.) to facilitate research, preservation initiatives, and information exchange, including the recording of people with local knowledge that should be preserved for posterity.	SHPO	UVI	2	2 and ongoing
Strategy: Explore policies and agreements that foster continued or renewed culturally significant daily activities like gathering food, gathering materials for crafts, or fishing in traditionally accessible areas.	CCZP, CZM	SHPO, CIVIC	1	2
Policy: Provide incentives and resources to preserve historic sites open to the public and develop museums and educational activities for adults, youth, and future generations alike.				
Strategy: Seek funding and legislative support for the development of a curation and museum facility to permanently and safely store and highlight the archaeological and scientific collections maintained by SHPO.	SHPO	DPNR	2	2
Goal 4: Connect people to everyday needs in a safe, accessible way.				
Policy: Increase walking and biking safety and opportunities prioritizing commercial and mixed-use areas and town centers.				
Strategy: Develop a sidewalk expansion and maintenance plan in priority areas with a schedule to address new sidewalks, maintenance needs, safety features (e.g., crosswalks), gaps, and accessibility.	DPW	CIVIC	2	2 and ongoing
Strategy: Explore and plan a comprehensive network of pedestrian and bicycle infrastructure that connects these priority areas with trails and other path networks. Coordinate implementation through the Territory's Complete Streets policy and engage with VITAL and other key stakeholders.	DPW	CIVIC	3	3
Policy: Invest in VITRAN to support regular, reliable, and affordable service that better connects jobs, commercial centers, schools, and residential areas, including service between islands.				
Strategy: Evaluate VITRAN routes and consider ways to create shorter loops to service localized areas during peak times.	VITRAN	CCZP, EDA	2	2 and ongoing

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Formalize more permanent bus routes that can be used by locals and tourists alike, with regular schedules that run every day, including evenings and weekends, and can be tracked in real time online or on an app. Work with cruise ship companies to fund additional bus runs when ships are in port.	VITRAN	DOT	3	2 and ongoing
Strategy: Evaluate opportunities for VITRAN efficiency improvements, such as signal prioritization for buses and real-time schedule updates.	VITRAN	DPW	2	3 and ongoing
Strategy: Review potential for enhanced and more affordable inter-island transportation, including for USVI residents, commuters, tourists, businesses, and others.	VIPA	CZM, EDA	3	2 and ongoing
Strategy: Consider opportunities to coordinate the VITRAN network with other transportation modes, such as water transport, Safari Taxis, electric bikes, and other rideshares, and provide more space to travel with personal bicycles.	VITRAN	EDA	2	3 and ongoing
Policy: Ensure that transportation and roadway planning, construction, and maintenance policies respond to the specific needs and conditions of each island.				
Strategy: Continue to evaluate, implement, and revise as needed island-specific transportation approaches identified in other previous planning efforts, such as the *2014 United States Virgin Islands 2040 Comprehensive Transportation Master Plan* and the *USVI Hurricane Recovery and Resilience Task Force Report 2018*.	Various			ongoing
Strategy: Update analyses and proposals from the *2014 United States Virgin Islands 2040 Comprehensive Transportation Master Plan* to respond to current conditions and needs, including better and more consistent lane striping, guardrails against steep slopes, street lighting, etc.	DPW		4	2
Strategy: Explore opportunities to develop stricter road hierarchies and designate routes for specific types of vehicle traffic to keep regular truck traffic out of residential areas and other sensitive zones. Roads in areas with high truck traffic should be constructed and maintained to industrial road standards.	DPW		4	2

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Policy: Clarify the responsibility for designing, building, and maintaining both public and private roads, streamline the process for repair, and coordinate with utility improvements.				
Strategy: Integrate planned road construction, utility improvements, and other infrastructure plans into a comprehensive capital improvement plan or other document to improve coordination.	DPW, WAPA, WMA		3	2
Strategy: Continue to develop and refine coordination policies and procedures across agencies for road repair and infrastructure planning. Build on DPW's "underground utility coordination group" that meets monthly with public and private utility partners (WAPA, WMA, Liberty, Viya, ODR, etc.) to discuss when underground utility work is taking place.	DPW, WAPA, WMA		1	ongoing
Strategy: Explore options for joining the national 811 call-before-you-dig system. Anyone who plans to dig could call 811 before digging to request that the approximate location of buried utilities be marked with paint or flags so that no one unintentionally digs into an underground utility line.	DPW		2	1
Strategy: Ensure DPW and DPNR are fully staffed and trained to understand all relevant roadway and driveway standards and can review plans and conduct inspections during construction to ensure compliance.	DPW	OMB	2	3 and ongoing
Strategy: Issue a solicitation for a team of certified third-party peer reviewers who are trained to supplement plan review and inspection services for DPW, DPNR, and other agencies.	DPW, DEE	CCZP, CZM	1	2
Strategy: Invest in an analysis and catalog of all public rights of way and public and private streets in the Territory and then digitize the information. Build on the street address project currently underway through the Lt. Governor's Office.	DPW		2	8
Strategy: Explore options for legal mechanisms that would allow DPW and DPNR to enforce the long-term maintenance of private streets and roadways.	DPW, DPNR		3	3

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Policy: Explore options for parking reform and enforcement specific to each island to ensure adequate parking where needed and avoid excessive parking requirements.				
Strategy: Continue to require and enforce adequate parking for residential development based on the size and type of the homes. Develop a policy for reducing these requirements with performance standards related to reuse of historic buildings, access to transit, availability of sidewalks and bikeways, proximity to mixed-use town centers and shopping areas, etc.	CCZP, CZM	DEE	2	1
Strategy: Develop and continually update a parking strategy for historic town centers that provides for and manages a shared public parking supply to support walkability and access to commercial services.	CCZP, CZM	EDA	5	2 and ongoing
Strategy: Explore opportunities for multi-purpose parking areas that can also provide benefits such as spaces for community events, water storage, solar panel canopies, etc.	VITEMA	CCZP, CZM, EDA	3	1
Strategy: Explore opportunities for shared parking lots or garages for commercial areas, connected to businesses by clear walking and biking paths and/or shuttle service.	CCZP	OPP, OLG, EDA	5	2 and ongoing
Strategy: Explore options for installing parking metering infrastructure in high demand areas.	CCZP	CIVIC, EDA	5	2
Goal 5: Create a sustainable system of public recreation and open space that fosters opportunities for fun, physical activity, and enjoyment of natural resources.				
Policy: Continue to develop and maintain an accessible, ecologically healthy, and biologically diverse park system based on data driven decisions and concrete needs assessment.				
Strategy: Continue to bolster the capacity and clarify the role of the Division of Territorial Parks and Protected Areas (TPPA).	TPPA	DSPR, DPNR, CIVIC	1	ongoing

Living and Thriving Together	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Strategy: Complete and obtain approval of the Territorial Comprehensive Outdoor Recreation Plan to become eligible for federal funding to acquire land for conservation or recreation, develop new recreation facilities, and maintain existing facilities.	TPPA	DSPR, CIVIC	1	2
Strategy: Use the needs assessment of the Territorial Comprehensive Outdoor Recreation Plan as a baseline to address recreation needs of the community, including for those with disabilities, and develop benchmarks to measure progress.	TPPA	DSRP, CIVIC	3	ongoing
Strategy: Identify parcels with potential to create parks for neighborhoods that need them.	TPPA	OLG, DSPR, OPP, CIVIC	2	2
Strategy: Identify and conserve parcels with high value for environmental protection or preservation of cultural/historic resources.			2	2
Strategy: Build capacity of the Department of Sports, Parks, and Recreation to keep parks, beaches, recreation areas, playgrounds, and other facilities clean, safe, and welcoming for all users.	DSPR	TPPA	1	ongoing
Policy: Preserve and improve public access to the shoreline in areas not designated for strict conservation due to environmental sensitivity.				
Strategy: Ensure that proposed development or infrastructure projects enhance shoreline access.	CZM	DPW, WMA, WAPA, EDA	1	ongoing
Strategy: Find opportunities for new public access ways from inland to the shoreline and, where possible, along the shoreline to protect and connect existing access ways, beaches, parks, boardwalks, and other public spaces.	CZM	TPPA	3	ongoing

St. John	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Cruz Bay				
Implement the strategies and vision from Plan Cruz Bay where the document shows consensus on intended outcomes. Use the organizing principles to guide future land and water use decisions.	Various		1	10
Continue analysis and discussion of initiatives that showed multiple scenarios in Plan Cruz Bay, such as the Sprauve school redevelopment and organization of different boat transport.	Various		1	3
Prioritize an assessment of government owned property to identify where these lands can be used to help achieve this refined community vision and provide space for much needed community services.	CCZP, OLG	CIVIC, EDA	2	2
Develop formal architectural controls for the Cruz Bay Town Historic District that protect landmarks and elevate awareness of the Post-Transfer Neo-Vernacular style. Revisit the boundary for the district to ensure it adequately protects existing resources.	SHPO, CCZP	CIVIC	2	1
Revisit the Commercial Zone program legislation with a focus on using Cruz Bay as a testing ground for making the program more effective, targeting funds to local property and business owners.	EDA	SHPO, CCZP, CIVIC	1	1
Coral Bay				
Create a comprehensive, long-term vision for Coral Bay that includes a strategic plan for investment in infrastructure that will guide future development that is both resilient and appropriately scaled to serve the needs of residents.	CIVIC, CCZP	CZM, EDA	2	2
Actively engage with property owners, particularly ancestral property owners to identify their needs and create pathways to investment and maintaining ownership.	CIVIC, CCZP	VIHFA	2	ongoing
Continue active partnerships with Coral Bay Community Council and partner where it is helpful to continue their work on OSDS research or other initiatives related to water quality and infrastructure.	DPNR	CIVIC, CCZP	2	5 and ongoing

St. John	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Centerline Road				
Explore options for zoning reform that will help make it easier to provide needed services and housing in a "mixed-use mid-island center" with improved pedestrian access.	CCZP	CIVIC, EDA	2	1
The National Park				
Provide St. Johnian families with the financial and legal resources needed to resolve property disputes.	EDA, VIHFA	NPS, CIVIC	1	1
Identify a venue for regular updates and discussion between the community and the National Park leadership. Consider using regular meetings with newly established local permit review authority (e.g., Planning Board).	NPS, CCZP, CIVIC	CZM	1	ongoing
Basic Services				
Provide incentives for locally sourced food to meet local demand for culturally appropriate cuisine and improve/introduce more agriculture production and distribution at a variety of scales.	EDA, VIDA	VIDOT, LFFC	2	2
Re-establish services for processing and removing bulk solid waste including, but not limited to, hazardous waste and automobiles.	WMA		4	ongoing
Ensure future development of the Sprauve School site includes government services that will reduce the need for residents to travel to St. Thomas.	OPP		2	10
Explore options for reestablishing an electric substation on St. John to help provide better redundancy during power outages.	WAPA		2	10
Develop a plan for and implement real time person-to-person virtual access from St. John to all agencies of government, particularly those providing the following services: education, health and welfare, public safety, housing, real property records, paternity and child support, judicial, sanitation, licensing and consumer affairs, and coastal zone and building applications and permits, including enforcement of permits and violations of applicable laws, rules, and regulations. Once successful, consider expanding these services to St. Thomas and St. Croix.	OLG	Various	2	5

St. John	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Housing				
Reform zoning standards to expand the diversity of year-round housing offerings in appropriate areas of the island with a focus on serving the housing needs of St. Johnians, including more dense, low-height dwelling units that better match the local vernacular.	CCZP	CIVIC	2	2
Where residential use is included, prioritize any government financial assistance for properties where long-term rental options (non-transient) will be provided exclusively.	Various		1	ongoing

St. Croix	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Food Sovereignty				
Inventory and digitally map all potentially productive agricultural soils and groundwater recharge areas with the best available information.	VIDA	CCZP, UVI	1	3 and ongoing
Identify the specific tract(s) of land needed to implement the *USVI Agricultural Plan*'s Strategic Orchard Development Initiative and also to meet the needs for large equipment storage/leasing.	VIDA, EDA	OPP, CCZP	2	2
Coordinate with VIPA to ensure the establishment and/or expansion of port facilities on the south shore that can process and safely store food in a way that bolsters a local food system.	VIPA, EDA	VIDA	1	ongoing
Secure the necessary resources and develop the Tech Park.	VIDA, EDA	ODR, OG, OMB, LEG	1	2
National Heritage Designation Area				
Establish a more formal connection between SHPO (as the coordinating entity) and local cultural civic leaders. Identify and fund cultural resource projects that will advance community needs and empower civic groups to perform the work.	SHPO	CIVIC	1	ongoing
St. Croix East End Marine Park (STXEEMP)				
Amend and revise the current mapping, regulation, enforcement, and management structure to clarify and, if beneficial to the resources, consolidate the roles of government agencies.	CZM, DFW, TPPA, DEE	CCZP	3	2
Formalize/adopt STXEEMP infractions into a fine schedule that holds violators accountable to the law and regulations.	TBD		2	2
Christiansted and Frederiksted				
Establish a direct, dedicated assistance program through the USVI Economic Development Authority that is place-based and includes a paid coordinator with experience in community development, grant writing, and project management.	EDA	CIVIC	2	3

St. Croix	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Using the studies already performed for these towns (described above), identify individual revitalization and infrastructure projects and develop partnerships for funding and implementation.	CIVIC, EDA	SHPO, CCZP	4	ongoing
Partner with, provide resources to, and empower local civic groups to secure funding, provide technical assistance to communities, and manage projects.	CCZP	CIVIC, CZM	1	ongoing
Sunny Isle and Five Corners				
Create public improvement plans with cost estimates and preliminary designs as preparation for future funding opportunities. These improvements could include stormwater infrastructure, road configurations, and pedestrian/bike infrastructure.	DPW	CCZP	2	2
Identify EDA incentives that may be applicable to these areas and provide direct outreach to property owners on these opportunities.	EDA	CCZP	2	1 and ongoing
Establish form-based design standards for new mixed-use centers that meet community needs and vision for improved walkability, connectivity, a range of housing types, resilient infrastructure, and usable open spaces.	CCZP, CZM	DPW	4	2
The Refinery				
Require the full clean up and remediation of the land and water in and around the former oil refinery as the highest priority for the revitalization of the site, consistent with federal regulations and the responsible parties already identified through documented investigations.	DEP	CZM, EDA	1	ongoing
To help prepare for discussions with future investors, research future redevelopment scenarios for the site that explore alternative uses, flexible programming, infrastructure needs, and community safeguards.	DEP, EDA	CZM	3	1
Ensure zoning allows for a wide range of industrial, warehouse, and energy uses consistent with 21st-century clean port models.	CZM, EDA	CCZP	2	1
Protect and adapt to climate change and hazards (sea level rise, saltwater intrusion, intense storms, earthquake, tsunami) to protect against future spills and contamination.	CZM	VITEMA	3	1

St. Croix	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
South Shore Trade Zone				
Support strategies specifically identified for the South Shore Trade Zone in *Vision 2040*.	EDA	CZM	1	ongoing
Consider having the USVI government commission preliminary designs for coastal resiliency that can be presented to future developers.	EDA	CZM, VITEMA	3	3
Consider innovative regulatory tools, such as pre-permitting, that provide a faster and clearer permit approval process conditional on meeting high standards for environmental protection and resilient design.	EDA	CZM	3	3
Maroon Sanctuary Park				
Continue to purchase property in Maroon Ridge and develop detailed implementation plans regarding the design and management of a public Sanctuary Park.	TPPA	CIVIC, CZZP, CZM	1	ongoing
Kingshill Aquifer				
Develop a fully updated scientific investigation of the Kingshill Aquifer that includes, but is not limited to:	DEP	CCZP, CZM	3	5
• Water quality investigations				
• Assessment of impacts to aquifer volume and quality from existing development and well withdrawals				
• Identification of restorative actions that can be performed by public infrastructure investment and development practices on privately-owned land.		EDA		
Adopt/enforce regulatory measures to protect and restore the aquifer to the extent practicable with requirements for pretreating stormwater runoff and recharging to the aquifer. Consider the use of a zoning overlay district.	CCZP, CZM	DEP	4	2

St. Thomas	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Limited Land Area				
Perform a detailed inventory of both public and private land that can help meet community needs and facilitate construction practices on St. Thomas. For private lands, identify incentives and agreements that will produce revenue for the owners.	OPP, OLG, CCZP	Various	2	2
Tutu Park Mall				
Work directly with property owners to develop a vision for future development which clarifies the extent to which any government incentives are required to achieve the vision.	CCZP, EDA	CIVIC	3	2
Apply stormwater management standards that recognize the watershed context, protecting the headwaters area of Turpentine Run gut and the marine resources in STEER.	CCZP	CZM	2	2
Establish form-based design standards to support a new mixed-use center that includes improved walkability, connectivity, a range of housing types, resilient infrastructure, and usable open spaces.	CCZP	DPW, WAPA, WMA	3	2
Charlotte Amalie				
Establish a direct, dedicated assistance program through the USVI Economic Development Authority that is place-based and includes a paid coordinator with experience in community development, grant writing, and project management.	EDA	CIVIC	2	3
Review, revise as needed, and adopt the Charlotte Amalie Form-Based Code (FBC) District set forward in *The Town's Blueprint, A Vision & Code for Historic Charlotte Amalie*.	CCZP	LEG	2	1
Establish a government program that funds qualified attorneys for on-call, client-based probate and estate planning related services.	VIHFA	CIVIC	1	ongoing
Continue extensions and improvements to the Veteran's Drive walkway park, including climate resilience and adaptation to sea level rise.	DPW	SHPO	1	8 and ongoing
Develop a long-term, targeted flood management study that models flooding under various storm scenarios (factoring in climate change) and establishes a long-term management plan.	CZM	DPW	4	2

St. Thomas	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Red Hook				
Perform an intensive study of the public realm, updating past studies and filling in gaps with new analysis as needed, to identify where improvements should be made for walkability, signage/wayfinding, and transit infrastructure and service.	CCZP	CIVIC	3	2
Identify a site for additional structured parking, develop conceptual designs, and calculate cost estimates.	CCZP	DPW, EDA	3	2
Smith Bay				
Continue implementation of the *Smith Bay Watershed Management Plan*.	CCZP	DPW, CIVIC	1	ongoing
Prioritize acquisition of land that can be integral to mitigating drainage problems.	CCZP	CIVIC	1	ongoing
Look for opportunities to build upon planned drainage improvements by including enhanced walkability elements (sidewalks, street trees) and walkable design standards for new buildings along the Emile Milo Francis Memorial Drive corridor.	DPW	CCZP, CIVIC	3	5
STEER				
Establish STEER as a Marine Park through an act of the Legislature.	CZM	DFW, TPPA	3	1
For the newly established Marine Park, clarify the role and jurisdiction of different agencies. Consider consolidating some of these roles where it creates clarity, strengthens administration, integrates with near-shore permitting, and facilitates enforcement.	CZM	CCZP, DFW, TPPA	3	1

St. Thomas	Lead	Potential Partners	Year to Begin	Estimated Years to Complete
Bordeaux Farming Community				
Continue direct engagement with the farming community to determine whether there is interest in providing more infrastructure to the area.	VIDA, LFFC		1	2
If there is interest:				
• Clarify the vision of how this area would function relative to farming, housing, and infrastructure.	VIDA, LFFC	CCZP, CZM	3	5
• Identify how this vision would leverage greater watershed health and better water quality in the bays.	VIDA	CCZP, CZM	3	5
• Coordinate the installation of roads, drainage, and utilities (including agrivoltaics for small crops that may require shade) across all applicable agencies and develop a roadway management plan tailored to the use of the land and water quality goals of the watershed.	VIDA	DPW, WAPA, WMA	3	15
Northside Community				
Use a watershed framework to implement an organized and strategic improvement initiative related to roadway improvements, flood reduction, solid waste management, wastewater upgrades, and regulatory reform.	CZM	DPW, WMA	2	2
Identify and pursue grant opportunities for the implementation of infrastructure improvements in this community.	CZM		4	15