

Final Report of the United States Virgin Islands
Conservation Planning Effort Presenting Results of
Spatial Analysis and Resulting Prioritization of Sites for
Conservation

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The Nature Conservancy

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Acronyms

AES University of the Virgin Islands-Agricultural Experiment Station
CCZP Department of Planning and Natural Resources-Comprehensive & Coastal Zone Planning
CDSS Caribbean Decision Support System
CES University of the Virgin Islands-Cooperative Extension Service
CFMC Caribbean Fishery Management Council
CMES University of the Virgin Islands-Center for Marine & Environmental Studies
CZM Department of Planning and Natural Resources-Coastal Zone Management
DEP Department of Planning and Natural Resources-Department of Environmental Protection
DFW Department of Planning & Natural Resources-Division of Fish & Wildlife
DPNR The Department of Planning & Natural Resources
DPW Department of Public Works
GIS Geographic Information Systems
MBA Magen's Bay Authority
MES University of the Virgin Islands-Marine & Environmental Studies
NPS National Park Service
SEA St. Croix Environmental Association
TNC The Nature Conservancy
USDA United states Department of Agriculture
USGA United Stated Geological Service
UVI University of the Virgin Islands
VIDA Virgin Islands Department of Agriculture

Acknowledgements

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Gratitude extends to the National Oceanic and Atmospheric Administration for making this research possible through financial support.

Summary

The United States Virgin Islands Department of Planning and Natural Resources (DPNR) was charged with providing a conservation update to the Territorial Comprehensive Land & Water Use Plan (the Plan). In order to provide a knowledge based conservation recommendation, DPNR invited experts from across the territory to review existing data and develop a recommendation. This effort supports the establishment of territorial marine protected areas (MPAs) through the identification of important marine ecosystems and garnering the support of key stakeholders for a territorial conservation portfolio through an inclusive and science driven process.

This report presents the results of the spatial analysis conducted and the final prioritized conservation portfolio. The selection and review of data and the subsequent analysis took place between May and September 2008. This effort was facilitated by The Nature Conservancy and its consultants.

Methods

In order to prepare a conservation portfolio for the US Virgin Islands, this effort employed components of the Caribbean Decision Support System (CDSS). The CDSS was designed to meet the needs of natural resource managers across the region and support decisions they make to protect the region's natural resources¹. The CDSS has been used to aid a large-scale biodiversity assessment of the region carried out by The Nature Conservancy. The CDSS aids in identifying conservation portfolios to concentrate detailed planning and conservation strategies and so sustain the biological diversity of the region.

This effort used a participatory approach to build support for a territorial conservation portfolio. Between May and September 2008 a series of four stakeholder meetings were held with relevant experts. TNC and its consultants worked with DPNR to identify experts from across the territory to review existing data and develop the recommendation. Additionally, TNC and its consultants had numerous one-on-one meetings with interested stakeholders and experts to explain the scope of the work and gather input and feedback from interested

¹ Huggins, A.E., S. Keel, P. Kramer, F. Núñez, S. Schill, R. Jeo, A. Chatwin, K. Thurlow, M. McPearson, M. Libby, R. Tingey, M. Palmer and R. Seybert 2007: Biodiversity Conservation Assessment of the Insular Caribbean Using the Caribbean Decision Support System, Summary Report, The Nature Conservancy.

and knowledgeable parties and organizations. Sixty experts were consulted over the course of this planning effort. A complete list of experts and their affiliation can be found in Appendix 1.

There were three main components to the overall analysis: 1) an environmental impact analysis 2) a relative abundance calculation and 3) an irreplaceability index. The results from these three analyses were combined and used to generate the recommended conservation portfolios.

Environmental Impact Analysis: The environmental impact analysis used mapped impact elements (targets), identified by the expert group, to model an impact surface for the territory. The impact analysis measured cumulative levels of impacts across the landscape. Each identified impact was given a marine and terrestrial intensity and distance score by the territorial experts (Appendix 2). Due to the lack of data available for ocean currents this model does not account for that. However, the model does incorporate an accumulation/flow direction model, which was captured at outflow points along the coast. The impact analysis was used to determine mean impact scores for each planning unit. The environmental impact surface analysis maps can be found in Appendix 3.

Relative Abundance Calculation (RAC): A relative abundance calculation was conducted on target natural resources identified by the expert group (Appendix 4). The targets identified were stratified into three categories: 1) St. Croix 2) St. Thomas/St. John and 3) off shore cays. The RAC identified planning units within each of the three stratifications that had relative high abundance of the natural resource targets. The RAC for each planning unit is directly proportional to the amount of conservation target present in the planning unit (e.g. hectares of habitat, length of stream or number of occurrences). This calculation was used to identify the best remaining areas, in terms of target abundance, for each target or set of targets at the planning unit scale. The RAC calculated the relative uniqueness or rareness of a habitat or species across the stratified landscape categories. The relative abundance maps can be found in Appendix 5.

Irreplaceability Index: The irreplaceability index was determined using MARXAN software. MARXAN uses an optimization routine in which an initial portfolio of planning units is selected and then planning units are added and removed in an attempt to improve the efficiency of the portfolio. Many runs of the routine are used to find the most efficient portfolio and to calculate a measure of

irreplaceability (used here to indicate the number of times a particular unit is chosen). In some cases, conservation targets are only found in limited sites – areas of high irreplaceability that are always chosen in any representative portfolio. Additionally, areas of high irreplaceability also include planning units, whose exclusion would require a proportionally larger conservation area network to achieve the same level of representation, resulting in a loss of portfolio efficiency. The algorithm used attempts to minimize portfolio total ‘cost’ while meeting conservation goals in a spatially compact network of sites. The number of times each planning unit was chosen was used to identify planning units that were less replaceable and thus more important for conservation. The irreplaceability index maps can be found in Appendix 6.

Designing the Portfolios

The three main analysis components were used to generate three portfolios 1) a conservation portfolio, 2) a promote development portfolio, and 3) a light development portfolio. The final portfolio maps can be found in Appendix 7.

Conservation Portfolio: The intention of the Conservation Portfolio is that these areas receive territorial priority for conservation measures. Planning units that had both high RAC scores and a high irreplaceability index were identified as areas that should receive conservation priority. These are areas that are potentially rich in rare, intact, or otherwise important ecosystem habitats. Areas which were already under management were automatically added to this portfolio. Experts at the September 24th meeting added additional areas to the computed generated portfolio based on local knowledge of ecological important areas. Within the Conservation Portfolio, areas that have been more significantly impacted area identified.

Promote Development Portfolio: The Promote Development Portfolio consists of areas that have already been impacted and/or have little conservation value based on the absence of conservation targets and the ability to replace the units (e.g. low irreplaceability scores). Planning units with low RAC scores and low irreplaceability and high mean impact scores were identified as best candidates for development.

Light Development Portfolio: The Light Development Portfolio consists of areas which may have some conservation value but are not among the highest conservation value areas. These areas need more specific site level review before development should be permitted. Specific restrictions may be

necessary depending on the resources present and other local conditions in these areas. No development in these areas is also an option.

DRRIS

Appendix 1 – Experts Consulted
 Alphabetical by last name

First Name	Last Name	Agency or Affiliation
Alton	Adams	Independent
John	Beagles	Independent
Rafe	Boulon	National Park Service
Bethany	Bradford, DVM	Virgin Islands Department of Agriculture
Viridin	Brown	Caribbean Fishery Management Council
Jeanne	Brown	The Nature Conservancy
Hubert	Brumont	Magen's Bay Authority
James	Byrne	The Nature Conservancy
Paul	Chakroff	St. Croix Environmental Association
Marilyn	Chakroff	VI Department of Agriculture
Errol	Chichester	Virgin Islands Department of Agriculture
Will	Coles	Department of Planning and Natural Resources-Department of Fish & Wildlife
Danny	Coughlin, PE	Independent
Carol	Cramer-Burke	St. Croix Environmental Association
Brian	Daley	University of the Virgin Islands-Agricultural Experiment Station
Olasee	Davis	University of the Virgin Islands-Cooperative Extension Service
Barry	Devine, PhD	Independent
Alexis	Doward	Department of Planning and Natural Resources-Department of Environmental Protection
Nadine	Noorasan, PhD	Department of Planning and Natural Resources
Marjoirie	Emanuel	Department of Planning and Natural Resources-Coastal Zone Planning
Mike	Evans	National Park Service
Ken	Haines	Independent Consultant
Dawn	Henry	Department of Planning and Natural Resources
Dwayne	Henry	Department of Planning and Natural Resources-Department of Environmental Protection
Aaron	Hutchins	Department of Planning and Natural Resources
Nasseer	Idrisi	University of the Virgin Islands-Center for Marine & Environmental Studies
Jeff	Keularts	University of the Virgin Islands-Cooperative Extension Service
Barbara	Kojis, PhD	University of the Virgin islands/Independent
Leia	LaPlace	Department of Planning and Natural Resources-Coastal Zone Planning
Kemit-Amon	Lewis	Department of Planning and Natural Resources-Coastal Zone Planning
Claudia	Lombard	National Park Service
William	McComb	Independent
Wanda	Mills-Bochachica	Department of Planning and Natural Resources
Rick	Nemeth, PhD	University of the Virgin Islands-Marine & Environmental Studies
Annita	Nibbs	Department of Planning and Natural Resources-Department of Environmental Protection
Lihla	Noori	University of the Virgin Islands-Center for Marine & Environmental Studies
Rudy G.	O'Reilly Jr	United states Department of Agriculture
Louis	Peterson, Phd	Department of Agriculture
Judy	Pierce	Department of Planning and Natural Resources-Department of Fish & Wildlife
Renata	Platenberg	Department of Planning and Natural Resources-Department of Fish & Wildlife
Michele	Pugh	Independent
Gary	Ray, PhD	Independent

Appendix 1 – Experts Consulted
 Alphabetical by last name

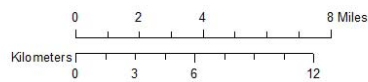
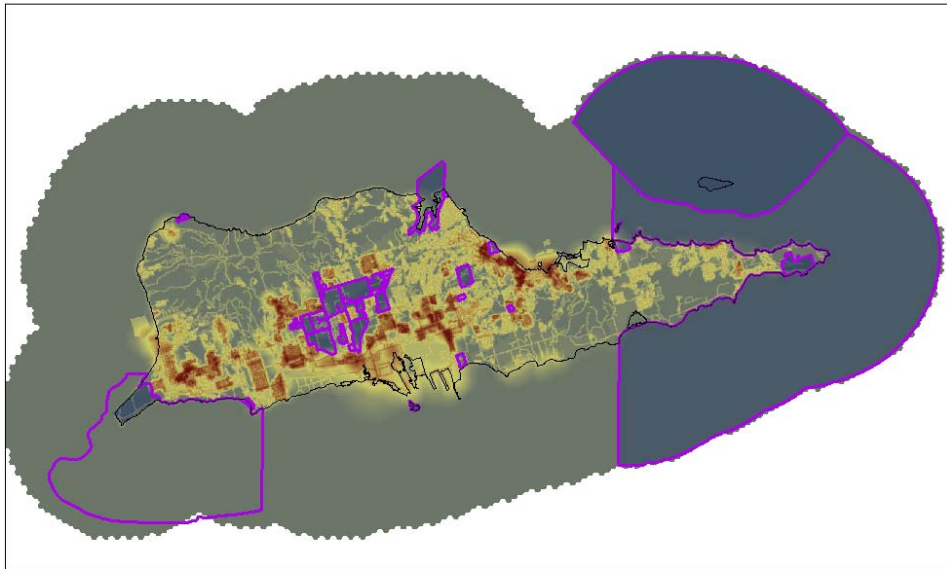
Keith	Richards	Department of Public Works
Caroline	Rogers, PhD	United States Geological Service
Jerry	Ronyon	Independent
Paige	Rothenberger	Department of Planning and Natural Resources-Coastal Zone Planning
Robert	Schusster	Department of Education/Private Sector
Dave	Smith	University of the Virgin Islands
Tyler	Smith	University of the Virgin Islands-Center for Marine & Environmental Studies
Syed	Syedali	Department of Planning and Natural Resources-Department of Environmental Protection
Marcia	Taylor	University of the Virgin Islands-Center for Marine and Environmental Studies
Toni	Thomas	University of the Virgin Islands-Cooperative Extension Service
William	Tobias	Department of Planning and Natural Resources-Department of Fish & Wildlife
Emily	Tyner	University of the Virgin Islands-Center for Marine and Environmental Studies
Jennifer	Valiulis	Department of Planning and Natural Resources-Department of Fish & Wildlife
Roy	Watlington	University of the Virgin Islands-Marine Science
Adam	Weis	University of the Virgin Islands-Agricultural Experiment Station
Jim	Watson	Independent
Julie	Wright	United States Department of Agriculture
Maurice	Yabba	National Guard

Appendix 2 – Environmental Impacts

Human Activity	Source	Date of Data	Terrestrial Distance (meters)	Marine Distance	Terrestrial Intensity	Marine Intensity
Agriculture	Land Use File	1999	50	500	20	20
Airports	Digitized	2008	1000	1000	90	90
Boat Ramps/piers	ESI	1998-2001	100	30	15	40
Chronic Grounding sites	Digitized	2008	0	10	0	90
Commercial Fishing/sales	ESI	1998-2001	100	0	20	85
Commercial Ports	ESI	1998-2001	500	1000	50	80
Hotel/Resort: Tourism	TNC	2006	100	100	25	25
Hotel/Resort: Tourism	TNC	2006	500	500	11	11
Hotel/Resort: Tourism	TNC	2006	500	500	17	17
Hotel/Resort: Tourism	TNC	2006	500	500	25	25
Hotel/Resort: Tourism	TNC	2006	500	500	50	50
Industrial Manufacturing	Land Use	1999	500	1000	100	100
Landfills	Digitized	2008	2000	2000	90	90
Live-aboards	Digitized	2008	0	500	0	30
Marinas: Boat Yards	Digitized	2008	500	1000	90	90
Marinas: fueling	Digitized	2008	200	500	80	80
Marinas: non-fueling	Digitized	2008	200	200	50	50
Mines Pits & Quarries	TNC	2006	500	1000	95	95
Power Plants	Digitized	2008	500	1000	100	100
Residential: High	Land Use	1999	200	500	75	75
Residential: Low	Land Use	1999	100	100	25	25
Residential: Medium	Land Use	1999	200	200	50	50
Retail Commercial	Digitized	1999	500	1000	80	80
Roads	DPNR	?	50	200	75	75
Solid waste transfer station: Susannaberg	Digitized	2008	500	500	50	50
Urban	Land Use File	1999	500	1000	90	90

Appendix 3 – Environmental Impacts Surface Analysis Maps

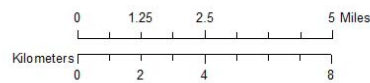
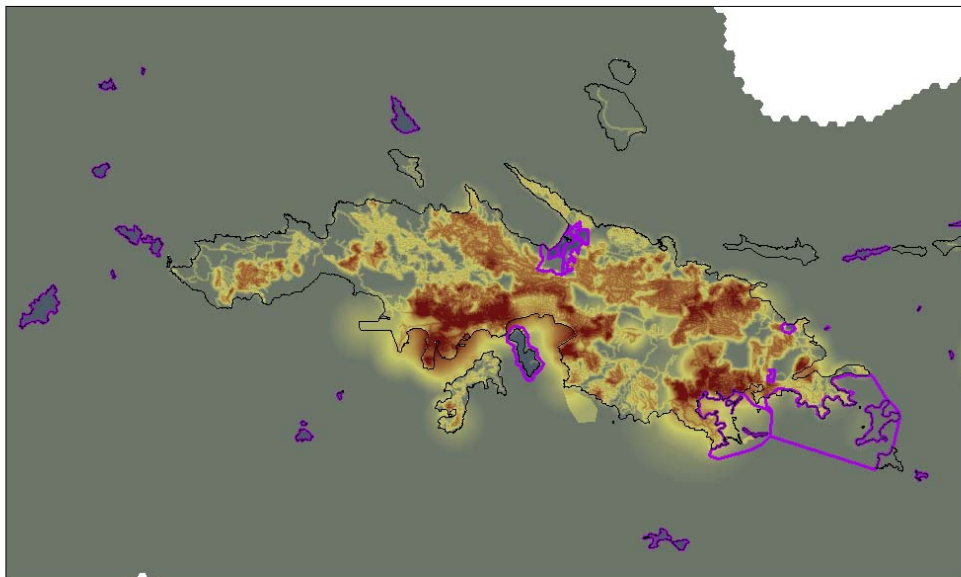
Environmental Impact Surface
St. Croix



October 2008



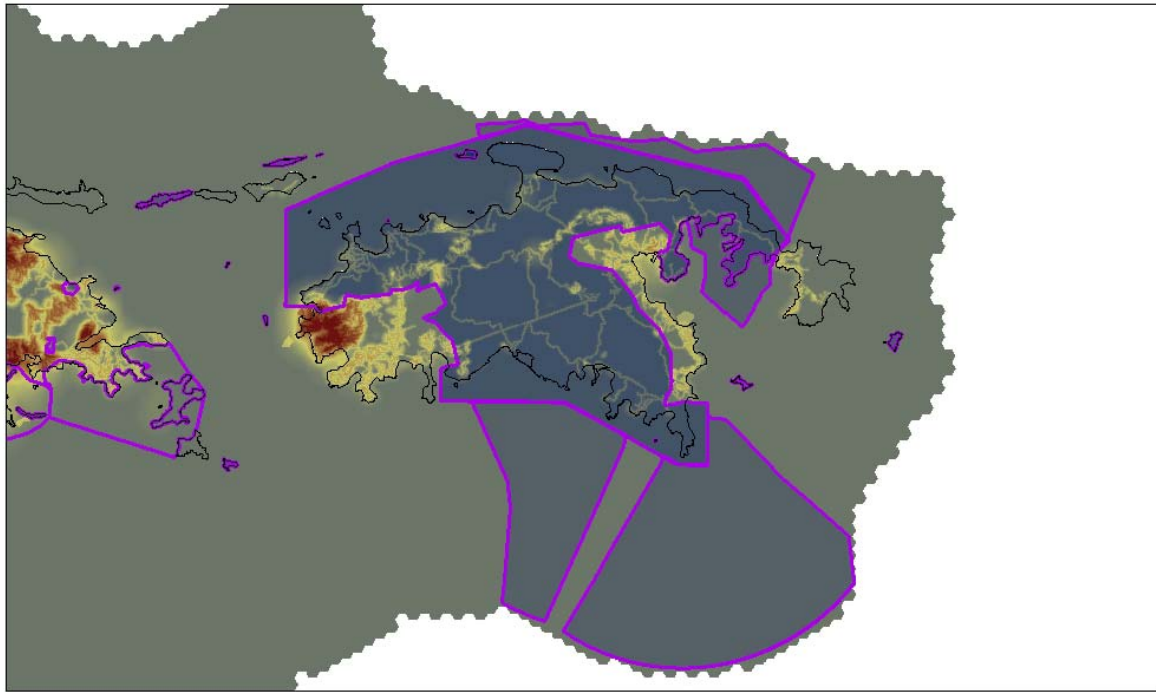
Environmental Impact Surface
St. Thomas



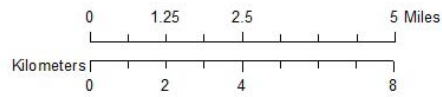
October 2008



Environmental Impact Surface St. John



October 2008



St. John

Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
Endangered				
Herpetofauna List				
<i>Alsophis sanctaerucis</i>	St. Croix Racer	unknown. Extinct		
<i>Ameiva polops</i>	St. Croix Ground Lizard	mixed dry shrub	beach	
<i>Dermochelys coriacea</i>	Leatherback Turtle	Beach		
<i>Eleutherodactylus schwartzi</i>	Virgin Islands Bo-peep	Upland Moist Forest		
<i>Epicrates monensis granti</i>	Virgin Islands Tree Boa	Dry Forest	Mixed Dry Shrub/Coastal hedge/mangrove	
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Beach		
Avifauna List				
<i>Anthracothorax dominicus</i>	Antillean Mango			
<i>Calidris canutus</i>	Red Knot	beach/salt pond/salt flat		
<i>Charadrius alexandrinus</i>	Snowy Plover	beach/salt pond/salt flat		
<i>Corvus leucognaphalus</i>	White-necked Crow			
<i>Dendrocygna arborea</i>	West Indian Whistling-Duck	Fresh pond/salt pond		
<i>Fregata magnificens</i>	Magnificent Frigatebird	marine		
<i>Fulica caribaea</i>	Caribbean Coot	Fresh pond/salt pond		
<i>Ixobrychus exilis</i>	Least Bittern	Fresh pond/salt pond		
<i>Megascops nudipes newtoni</i>	Puerto Rican Screech-Owl			
<i>Myiarchus antillarum</i>	Puerto Rican Flycatcher			
<i>Phoenicopterus ruber</i>	Greater Flamingo	salt pond		
<i>Puffinus iherminieri</i>	Audubon's Shearwater			
<i>Rallus longirostris</i>	Clapper Rail	mangrove/salt pond		
<i>Sula dactylatra</i>	Masked Booby	cays. Coastal grassland		
<i>Tachybaptus dominicus</i>	Least Grebe	fresh pond		

Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
Federally Endangered or Threatened Plants				
<i>Buxus vahlii</i>	Vahl's Boxwood (E)			
<i>Zanthoxylum thomasianum</i>	Prickly Ash (E)			
Territorially Endangered Plants				
<i>Agave eggersiana</i>	Egger's Agave			
<i>Brassavola cucullata</i>				
<i>Brysonima</i> sp.				
<i>Callicarpa ampla</i>				
<i>Calytranthes thomasiana</i>	St. Thomas Lidflower			
<i>Capa Rosa</i>				
<i>Catesbaea melanocarpa</i>				
<i>Coccoloba rugosa</i>				
<i>Croton fishlockii</i>				
<i>Cypselia humifusa</i>				
<i>Epidendrum ciliare</i>	Christmas Orchid			
<i>Epidendrum cochleatum</i>				
<i>Erythrina eggersii</i>	Egger's Cockspur			
<i>Eugenia</i> sp.				
<i>Galactia eggersii</i>	Egger's Galactia			
<i>Guaiacum officinale</i>	Lignum Vitae			
<i>Habenaria alata</i>				
<i>Ilex sideroxyloides</i>	Central American Oak			
<i>Ilex urbanii</i>	Urban's Holly			
<i>Machaonia woodburyana</i>				
<i>Malpighia infestissima</i>	Stinging Bush			
<i>Malpighia linearis</i>				
<i>Malpighia</i> sp.				
<i>Malpighia woodburyana</i>	Cowage Cherry			
<i>Mammillaria nivosa</i>	Woolly Nipple			

Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
<i>Manilkara bidentata</i>	Bulletwood			
<i>Maytenus cymosa</i>				
<i>Nashia inaguensis</i>				
<i>Operculina triquetra</i>				
<i>Opuntia triacantha</i>				
<i>Peperomia myrtifolia</i>	Myrtle-leaved Peperomia			
<i>Pilea richardii</i>	Richard's Clearwood			
<i>Polystachya concreta</i>				
<i>Ponthieva racemosa</i>				
<i>Prescottia oligantha</i>				
<i>Prescottia stachyoides</i>				
<i>Psidium amplexicaule</i>	Mountain Guava			
<i>Psidium</i> sp.				
<i>Psychilis macconnelliae</i>				
<i>Schoepfia schreberi</i>				
<i>Sida eggersi</i>				
<i>Solanum conocarpum</i>				
<i>Solanum mucronatum</i>				
<i>Spiranthes elata</i>				
<i>Tetramicra canaliculata</i>				
<i>Tetramicra canaliculata alba</i>				
<i>Tillandsia lineatispica</i>	Pinon			
<i>Tolumnia prionocheilum</i>	Yellow Dancing Lady Orchid			
<i>Tolumnia variegatum</i>	White Dancing Lady Orchid			
<i>Vanilla barbellata</i>	Vanilla Orchid			
Threatened				
Herpetofauna List				
<i>Chelonia mydas</i>	Green Turtle	Beach		

Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
<i>Mabuya sloanii</i> complex	Slipperyback Skink	mixed dry shrub/coastal grassland/beach	coastal hedge	
<i>Alsophis portoricensis</i>	Puerto Rican Racer	mixed dry shrub/dry forest		
Avifauna List				
<i>Catoptrophorus semipalmatus</i>	Willet			
<i>Chordeiles gundlachi</i>	Antillean Nighthawk			
<i>Columba leucocephala</i>	White-crowned Pigeon			
<i>Fulica americana</i>	American Coot	fresh pond/salt pond		
<i>Geotrygon mystacea</i>	Bridled Quail-Dove	upland moist forest		
<i>Haematopus palliatus</i>	American Oystercatcher	beach/rock pavement		
<i>Numenius phaeopus</i>	Whimbrel			
<i>Phaethon lepturus</i>	White-tailed Tropicbird	rock pavement	coastal grassland	
<i>Sula sula</i>	Red-footed Booby	coastal grassland		
Special Concern				
Avifauna List				
<i>Anas bahamensis</i>	White-cheeked Pintail	salt ponds		
<i>Calidris minutilla</i>	Least Sandpiper	beach/salt flat/salt pond		
<i>Charadrius wilsonia</i>	Wilson's Plover	beach/salt flat/salt pond		
<i>Egretta thula</i>	Snowy Egret	fresh pond/salt pond/mixed swamp		
<i>Falco peregrinus</i>	Peregrine Falcon			
<i>Limnodromus griseus</i>	Short-billed Dowitcher			
<i>Oxyura jamaicensis</i>	Ruddy Duck			
<i>Pelecanus occidentalis</i>	Brown Pelican	thicket scrub/coastal hedge		
<i>Phaethon aethereus</i>	Red-billed Tropicbird			
<i>Progne dominicensis</i>	Caribbean Martin			
<i>Protonotaria citrea</i>	Prothonotary Warbler			

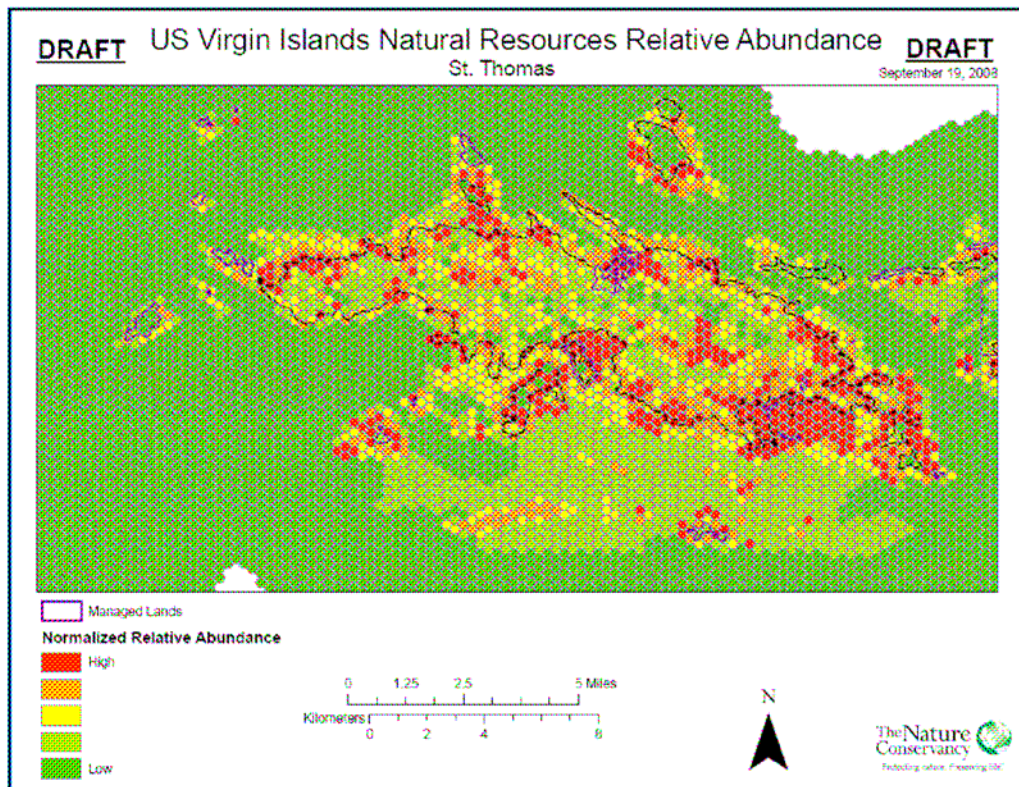
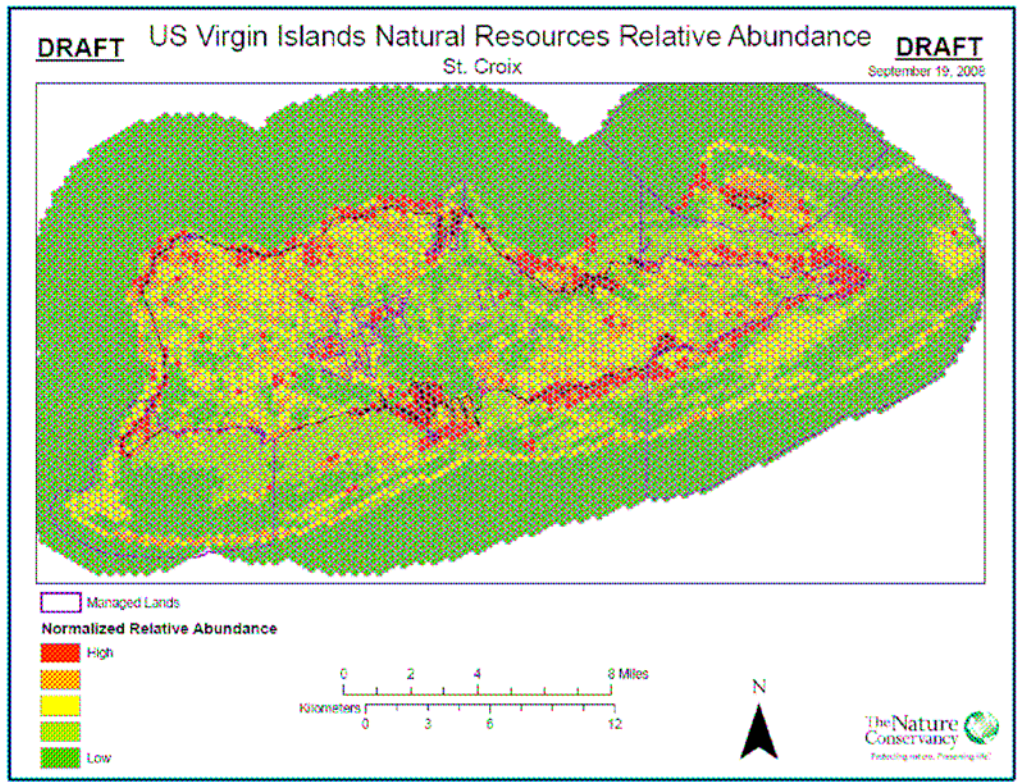
Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
<i>Sterna antillarum</i>	Least Tern			
<i>Sterna dougallii</i>	Roseate Tern			
<i>Wilsonia citrina</i>	Hooded Warbler			
Peripheral				
Avifauna List				
<i>Ardea herodias</i>	Great Blue Heron	fresh pond/salt pond/salt flat/mixed swamp/mangroves		
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo			
<i>Dendroica coronata</i>	Yellow-rumped Warbler			
<i>Dendroica dominica</i>	Yellow-throated Warbler			
<i>Dendroica palmarum</i>	Palm Warbler			
<i>Egretta tricolor</i>	Tricolored Heron	fresh pond/salt pond/salt flat/mixed swamp/mangroves		
<i>Geothlypis trichas</i>	Common Yellowthroat			
<i>Helmitheros vermivorum</i>	Worm-eating Warbler			
<i>Loxigilla noctis</i>	Lesser Antillean Bullfinch			
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	fresh pond/salt pond/salt flat/mixed swamp/mangroves		
<i>Oporornis formosus</i>	Kentucky Warbler			
<i>Seiurus motacilla</i>	Louisiana Waterthrush			
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker			
Workshop List				
Local				
<i>Stenoderma rufum</i>	Red Fig Eating Bat			
<i>Noctilio leporinus</i>	Pallas Mastiff Bat			
<i>Molussus molussus</i>	Velvety Free-tailed Bat			

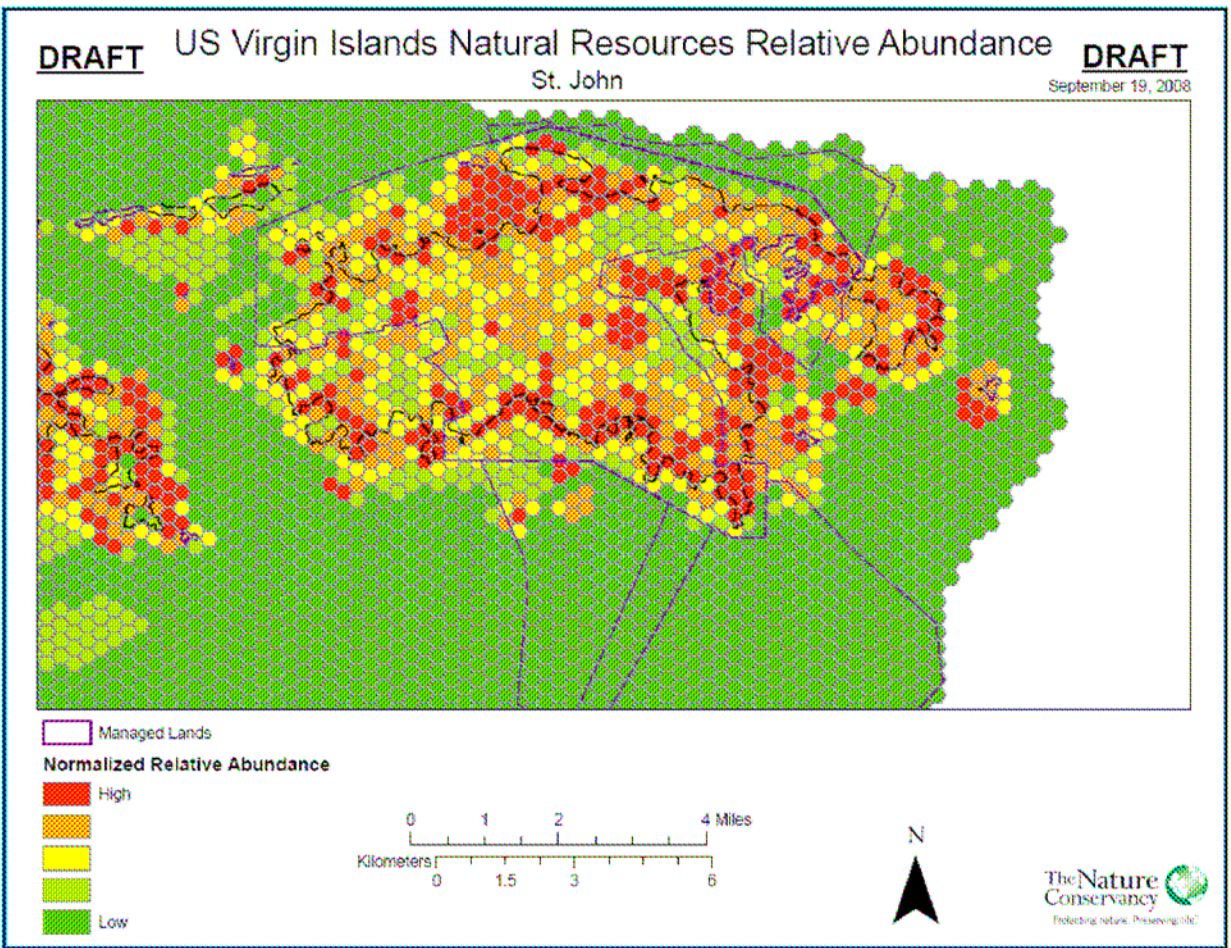
Appendix 4 – Terrestrial Flora & Fauna Conservation Targets

Scientific Name	Common Name	Land Cover Class Primary	Land Cover Class Secondary	Migratory Land Cover Class
Mangroves		mangroves		
Turks Cap cactus		coastal grassland/rock pavement		
Zanthoxylum flavum	Yellow Satinwood			
Carocolus spp				
Freshwater breeding birds		Fresh Pond		
Freshwater fish		gut pools/Fresh Pond		Riparian guts
Macrobrachium spp. And Atya spp.	freshwater shrimp	gut pools coastal grassland/rock pavement/coastal hedge/thicket scrub		Riparian guts
Seabirds				
Neea buxifolia				
Cardisoma guanhumu	Great Land Crab	Mangroves	salt ponds/salt flats	beach
Coenobita clypeatus	Soldier Crab	Forest and Woodland		riparian guts/beach
Uca spp.	Fiddler Crabs	salt ponds/salt flats/mangroves		beach
Manilkara pleeana				
Prokia crucis				
Adiantum villosum				
Cyathea arborea	Tree fern			
Pilea nummularifolia	Creeping Charley			
Zanthoxylum punctatum				

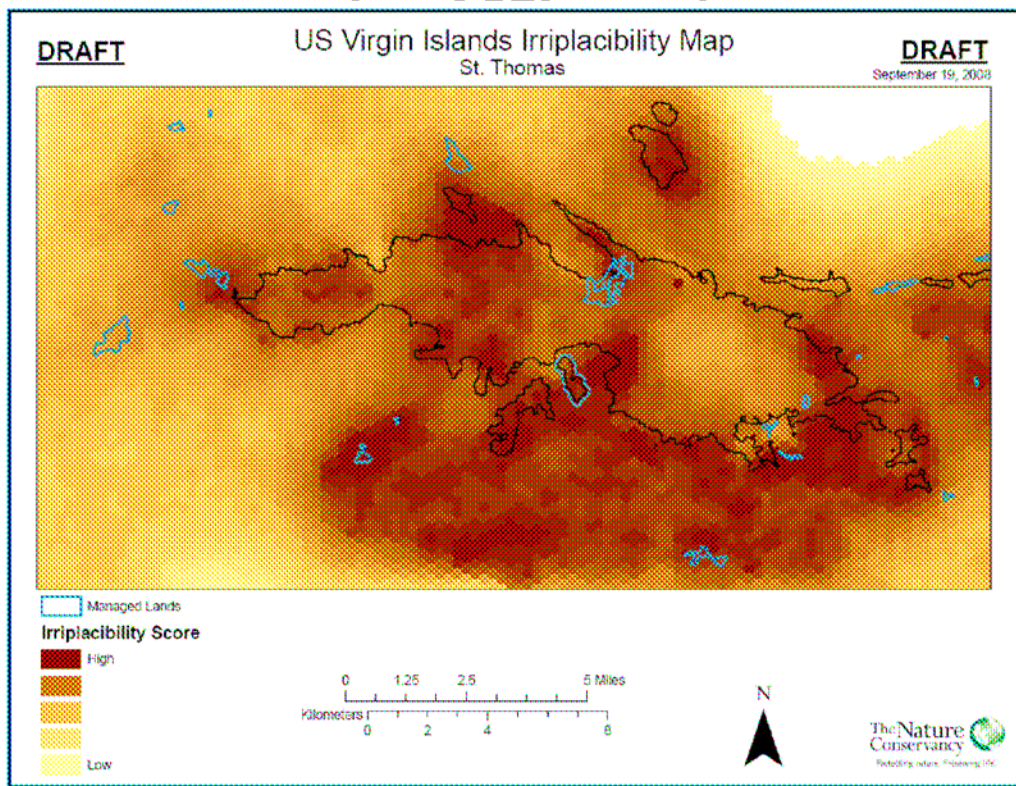
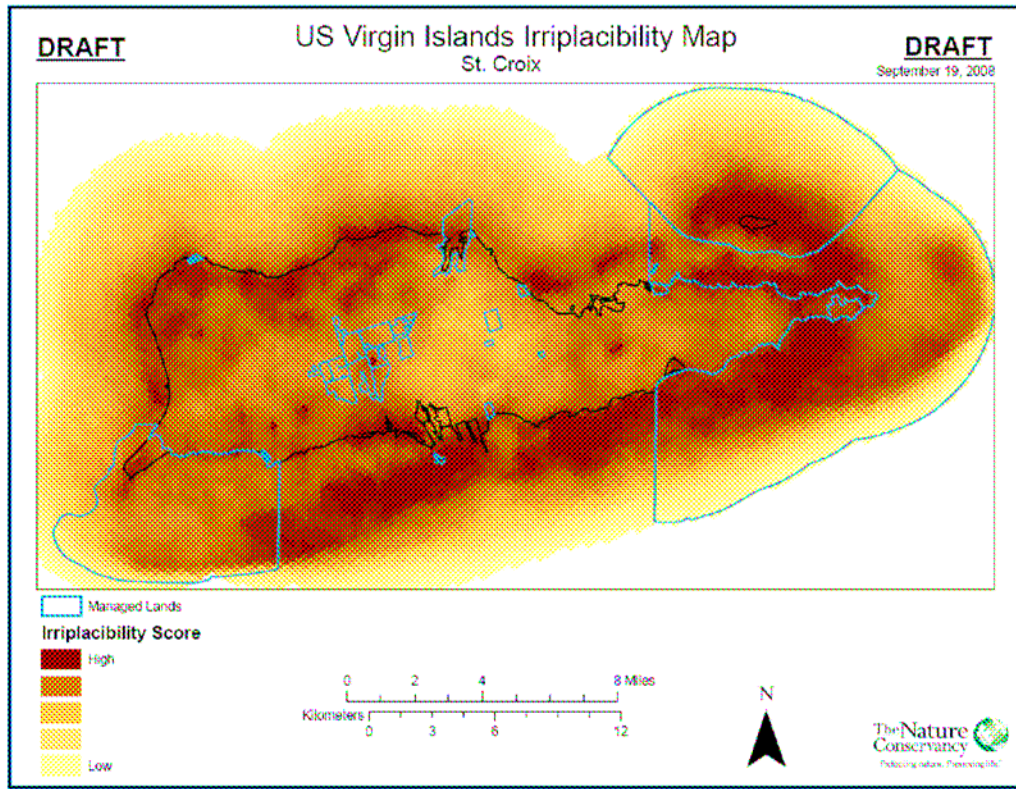
Appendix 5 – Natural Resources Relative Abundance Maps



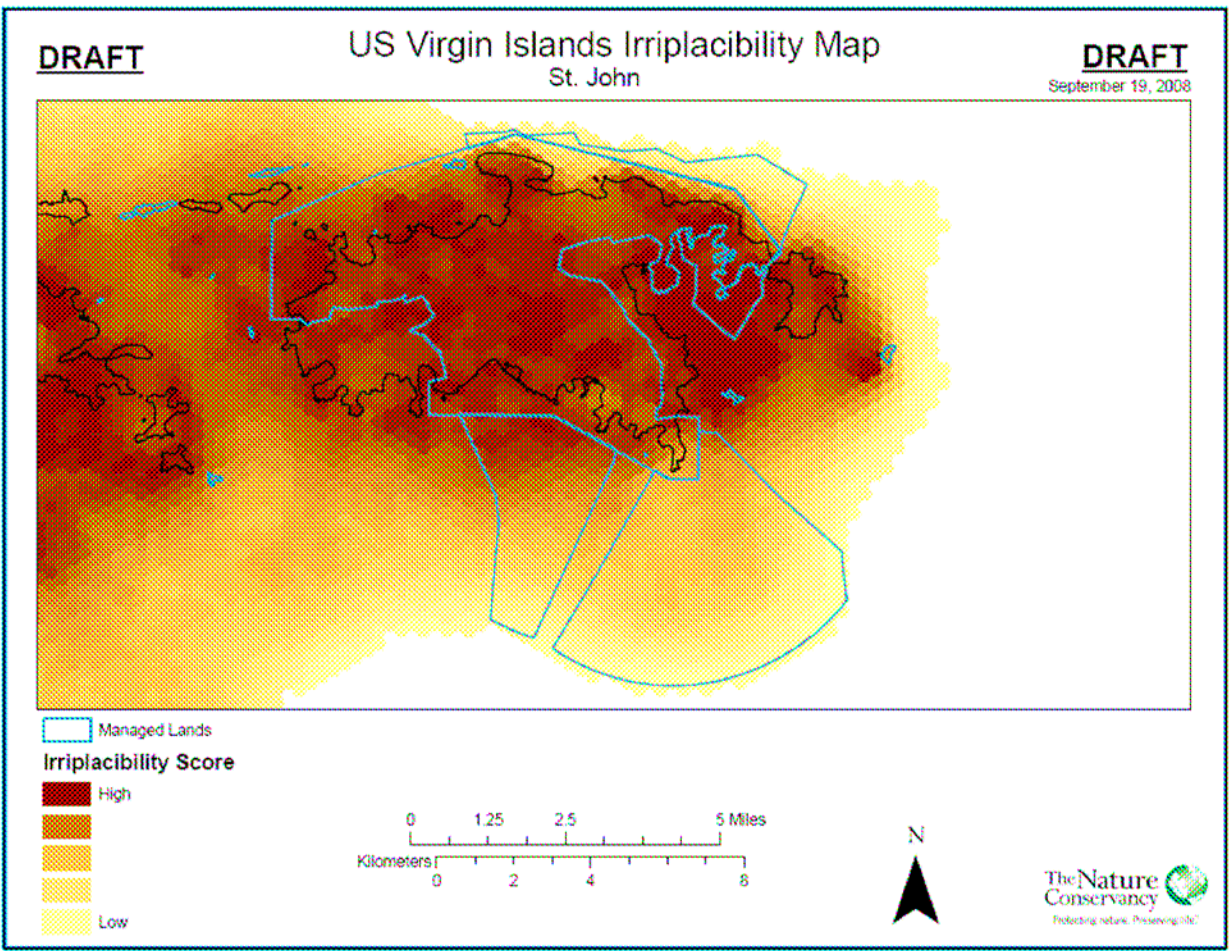
Appendix 5 – Natural Resources Relative Abundance Maps



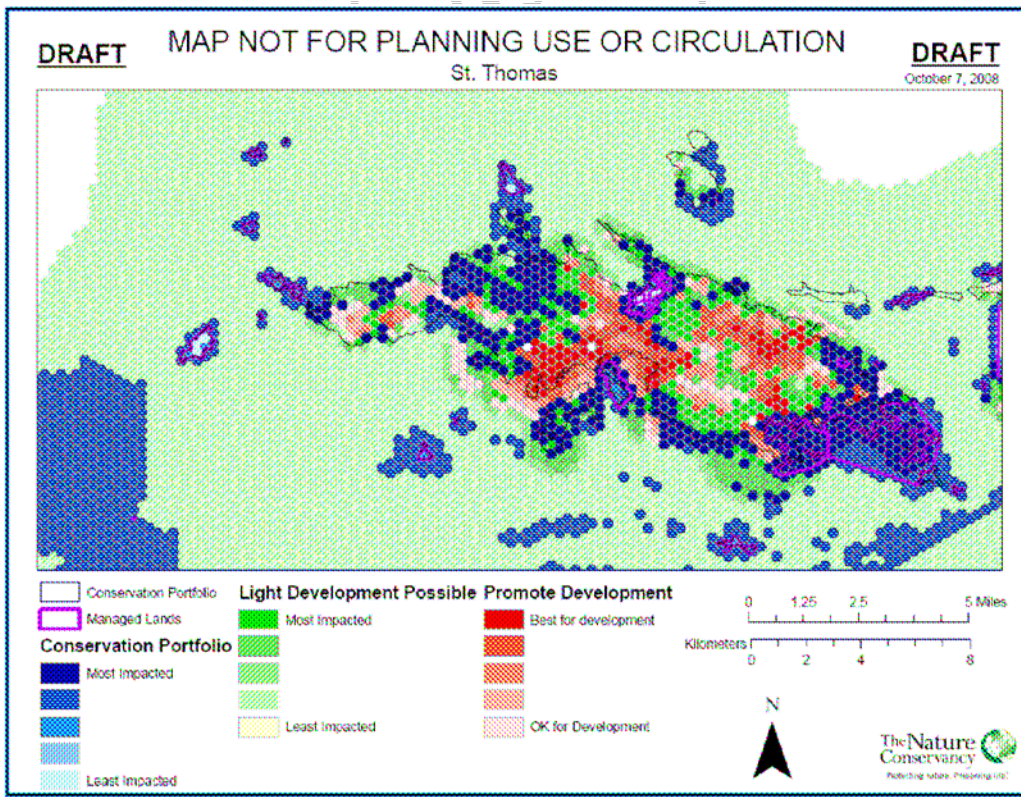
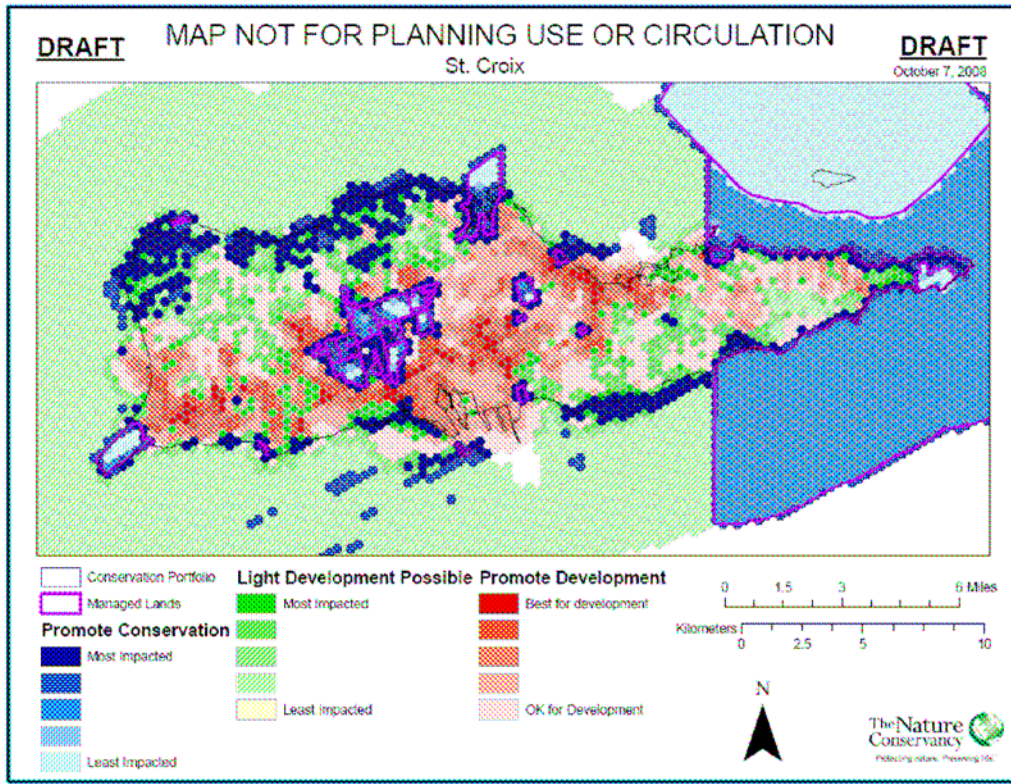
Appendix 6 – Irriplacibility Maps

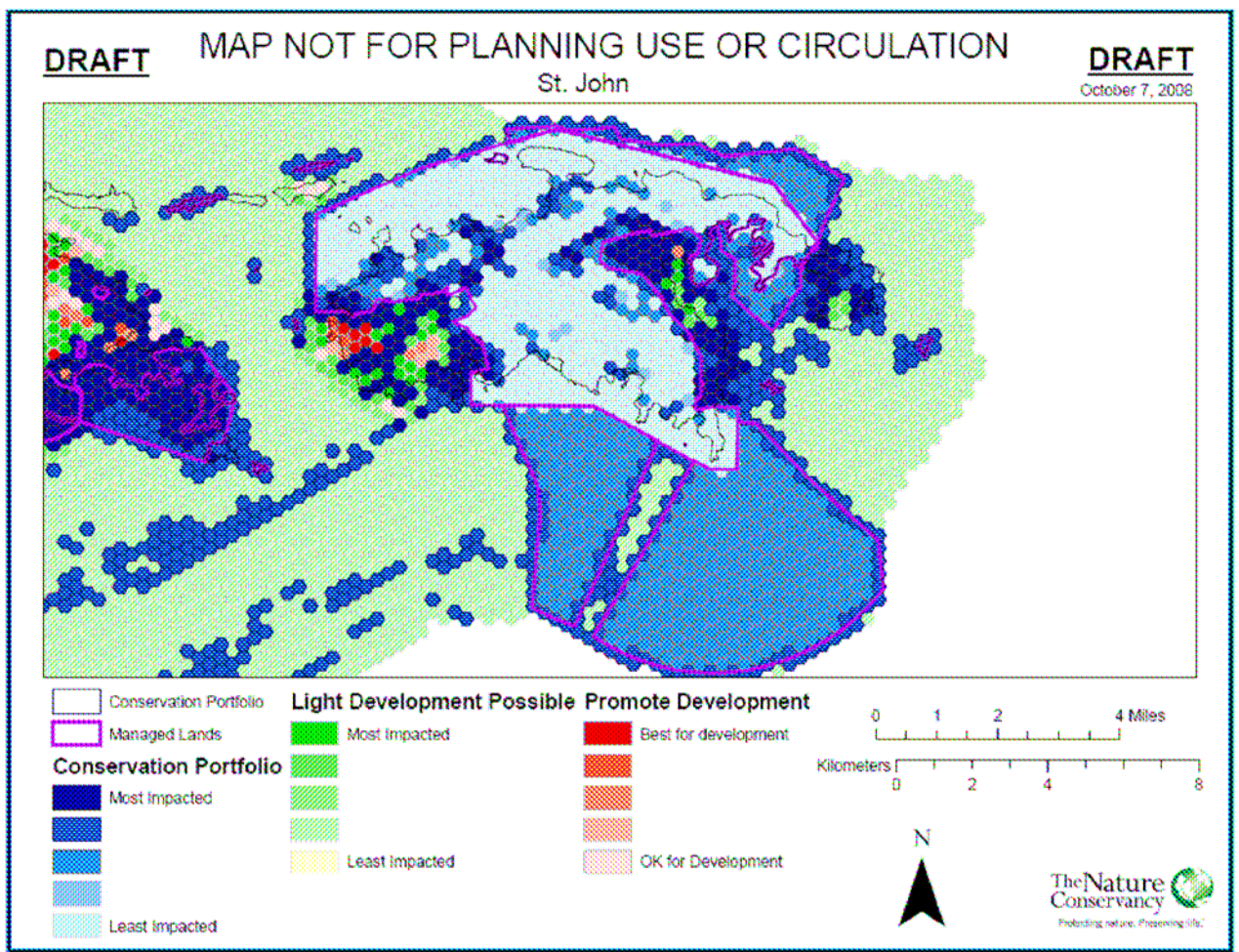


Appendix 6 – Irriplacibility Maps



Appendix 7 – Final Portfolio Maps





Managed Area Name	Land Owner	Contact
Agricultural Experiment Station	University of the Virgin Islands	Brian Daley
Buck Island (St. Thomas)	US Fish and Wildlife Services	Mike Evans/ Claudia Lombard
Buck Island Reef National Monument (St. Croix)	US National Park Service	Zandy Hollis-Star
East End Marine Park	Department of Planning and Natural Resources Coastal Zone Management	Paige Rothenburgh
Estate Little Princess	The Nature Conservancy	James Byrne/Richard Gideon
Estate Thomas	US Forest Service	Marilyn Chakroff
Green Cay	US Fish and Wildlife Services	Mike Evans/ Claudia Lombard
Herman Hill Pond	The Nature Conservancy	James Byrne/Richard Gideon
Jack and Isaacs Bays	The Nature Conservancy	James Byrne/Richard Gideon
Long Point	The Nature Conservancy	James Byrne/Richard Gideon
Magen's Bay Preserve	Magen's Bay Authority	Hubert Brumont
Magen's Bay Preserve	The Nature Conservancy	Richard Gideon/James Byrne
Managed Cays	Department of Planning and Natural Resources-Department of Fish & Wildlife	Judy Pierce
National Guard Armory-St. Croix	US Department of Defense	Maurice Yabba
National Guard Armory-Nazareth St. Thomas	VI National Guard	Maurice Yabba
Not Managed Cays	Department of Planning and Natural Resources-Department of Fish & Wildlife	Judy Pierce
Ruth Island	USVI F&W	Jennifer Valiulis
Salt River Historic Site	Virgins Islands Government and US National Park Service	Zandy Hollis-Star

Sandy Point	US Fish and Wildlife Services	Mike Evans/ Claudia Lombard
Scion Ridge Area (Park Service Warehouse)	US National Park Service	Zandy Hollis-Star
Somewhat Managed Cays	Department of Planning and Natural Resources-Department of Fish & Wildlife	Judy Pierce
Southgate Pond	St. Croix Environmental Association (SEA)	Carol Cramer-Burke
UVI Wetlands	University of the Virgin Islands	Emily Tyner
VI National Guard Hams Bluff	VI National Guard	Maurice Yabba
VI National Park (Hassel Island)	National Park Service	Rafe Boulon
VIDOA	Department of Agriculture	Errol Chichester
Virgin Islands Coral Reef National Monument	National Park Service	Rafe Boulon
Virgin Islands National Park	National Park Service	Rafe Boulon