Generating Conservation Scenarios for Puerto Rico

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Abstract

Three biodiversity reserve scenarios were created using the Spatial Portfolio Optimization Tool. Targeted biodiversity elements included freshwater habitats, coastal marine habitats, terrestrial ecological systems, coastal marine species, and rare upland and wetland plant and animal species. Two layers reflecting conservation 'cost,' or suitability, were computed using a series of weighting factors applied to land use data. One cost layer influenced reserve selection for the all the marine areas and the terrestrial ecological systems. The other cost layer was develop using a flow accumulation model and influenced selection of the freshwater habitats only. Spatial analysis units of 14,993 100-hectare hexagons were used (9,377 Terrestrial and 5,616 Marine). Representation goals were set as 10% and 30% of historic terrestrial systems and 30% to 60% of marine habitats, coastal marine densities and freshwater habitats. Final results ranged from 26% to 48% of the study area selected in order to achieve goals.

Introduction

NatureServe worked in cooperation with the Conservation Trust of Puerto Rico (*Fideicomíso Puertorriqueña de Conservación*), Geographic Mapping Technologies Corp. (GMT), the *Patrimonio Natural de Puerto Rico*, and The Nature Conservancy (TNC) to complete an initial, island-wide assessment of biodiversity conservation priorities. We focused on major ecosystems and vulnerable species in terrestrial, freshwater, and coastal marine environments. This assessment was intended to provide a demonstration of the types of data, analyses, and technical tools that could meet needs for biodiversity conservation priority-setting throughout the Island.

This conservation assessment utilized existing distribution maps of freshwater and coastal marine habitats and vulnerable species made available through various sources - much of which was compiled by The Nature Conservancy and others for their Caribbean-wide assessment. A map of terrestrial ecological systems was developed using existing data (e.g., Helmer et al. 2002) to match classification concepts defined by NatureServe's international ecological classification standard. These data, along with maps of existing conservation lands and apparent threats to biodiversity values were also compiled within two decision support tools: NatureServe *Vista*, and SPOT (Spatial Portfolio Optimization Tool). These tools were used to generate, evaluate, and summarize several biodiversity

conservation scenarios – highlighting places throughout the island and surroundings where biodiversity representation goals could be effectively met.

Through this effort, we demonstrated a range of analyses available for conservation priority-setting with existing data. This paper focuses on the use of spatial optimization tools in island-wide assessment and *identification of lands and waters where biodiversity conservation should be emphasized*. This was part of a larger effort setting the stage for subsequent data development and analyses that will integrate decision making from regional to local scales and across multiple conservation themes (e.g., biodiversity, ecosystem services, cultural values, scenic values, etc.).

Materials and Methods

Using existing spatial data created by the International Institute of Tropical Forestry (Helmer et al., 2002), The Nature Conservancy, and others (e.g., Figueroa 1996), we mapped terrestrial ecological systems (NatureServe 2004) for the island of Puerto Rico. A total of 22 Terrestrial Ecological system types, along with 5 major land use types were mapped (Figure 1). A review of the metadata listed in Appendix1 will illustrate the details, descriptions, and techniques for mapping terrestrial ecological systems. Table 1 shows the full suite of target categories and their frequencies used in this study to represent biodiversity.

Figure 1

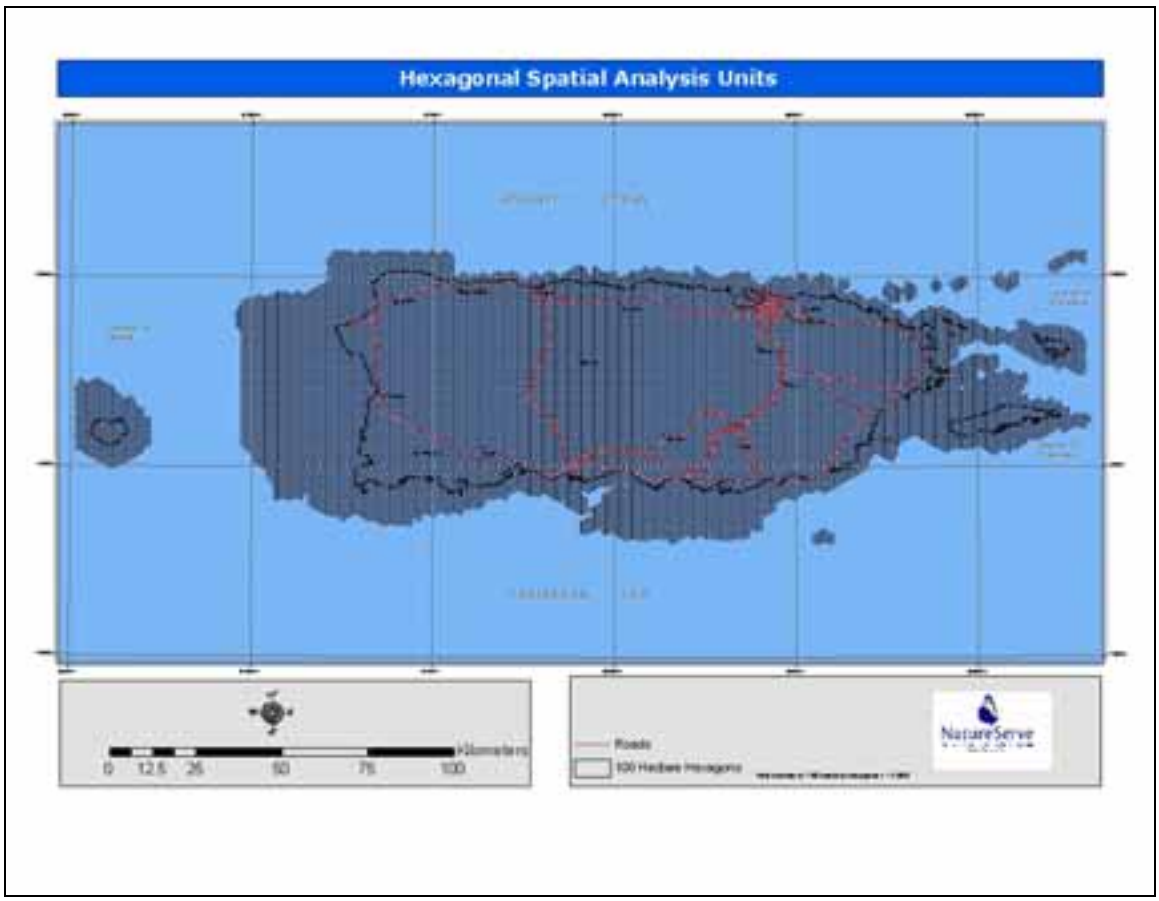
Table1

Element Type	Frequency
Ecological Systems	
Terrestrial Ecological Systems	22
Freshwater Habitats	25
Coastal Marine Habitats	16
Vulnerable Species Assemblages/Habit	
Spawning Fish Assemblages	1
Marine Species Habitat Components	8
Species	
Vulnerable-Imperiled Animal Species	56

Vulnerable-Imperiled Plant Species	190
Grand Total	318

Spatial optimization tools utilize spatial analysis units to represent and summarize multiple spatial data sets relevant to reserve selection. For Puerto Rico, the study area consisted of the island and selected areas in the coastal marine environment. We selected hexagons as spatial analysis units, each with an area of 100 hectares. A total population of 14,993 100-hectare hexagons encompassed the entire study area (Figure2). The 14,993 100-hectare hexagons were split into to 9,377 terrestrial and 5,616 marine.

Figure 2



Because of the multiple conservation targets, the large data set, the complexity of land/water uses, and management in the island we used a spatial-optimization software program named SPOT (Shoutis 2004) to generate alternative scenarios for achieving representation objectives. SPOT is one of several spatial optimization tools, such as MARXAN and SITES (Andelman et al. 1999) that have been commonly used in recent years for regional conservation planning.

The overall objective of spatial optimization is to ensure that representation objectives have been met while minimizing the "cost" of the total scenario. The SPOT program selects areas to meet objectives for conservation targets while balancing objectives of efficiency; that is, it seeks the greatest number of objectives met for the lowest "cost" or the least amount of suitable land/water. This set of objectives is summarized in the following equation:

Total Scenario Cost = Cost of Selected Areas + Target Penalty + Boundary Length

where the individual factors are defined as follows:

- *Total Scenario Cost* is the objective to be minimized.

- *Cost of Selected Areas* is the number of hectares in all analysis units that are selected for the scenario, along with additional costs that approximate a degree of "conservation suitability" for conservation.

- *Target Penalty* is a cost of not meeting representation objectives for each target.

- *Boundary Length* is a cost of spatial dispersion of the selected conservation areas as measured by the total boundary length (i.e., edge/area ratio of lands/waters included in the scenario).

The algorithm seeks to minimize the *Total Scenario Cost* by selecting a set of places that includes as many target occurrences as possible, as 'cheaply' as possible, in as generally compact a set of areas as possible. The solutions depend on how site cost is measured, on the target levels and the penalty cost for each target, and how heavily the boundary length is weighted. The modeling program generates and compares several million possible scenarios to determine the most efficient or "near-optimal" scenario.

Conservation suitability describes the relative circumstances where biodiversity conservation could be more or less successful, given current and future threats to resource values and established resource management regimes. The suitability index is a mechanism for integrating economic, socio-political, and biological factors in the design process. This index integrates land/water use factors for a given geographic area, and represents the likely "cost" (or rough degree of difficulty) associated with conserving targets in an area.

We developed two conservation suitability index layers for Puerto Rico using available spatial data; one focused on factors affecting terrestrial and coastal marine targets, and the other with modifications suited to freshwater targets. Scores are calculated for each hexagon. The first cost layer was for the Marine and Terrestrial environments (figure3) and the second was for the Freshwater Aquatic environment (figure 4). The data used for the Marine and Terrestrial are listed in Appendix 2 and the Freshwater are in Appendix 3. The minimum and maximum costs for the marine and terrestrial were 10 and 494 respectively and 10 – 1508 for the Freshwater, respectively.

Figure 3

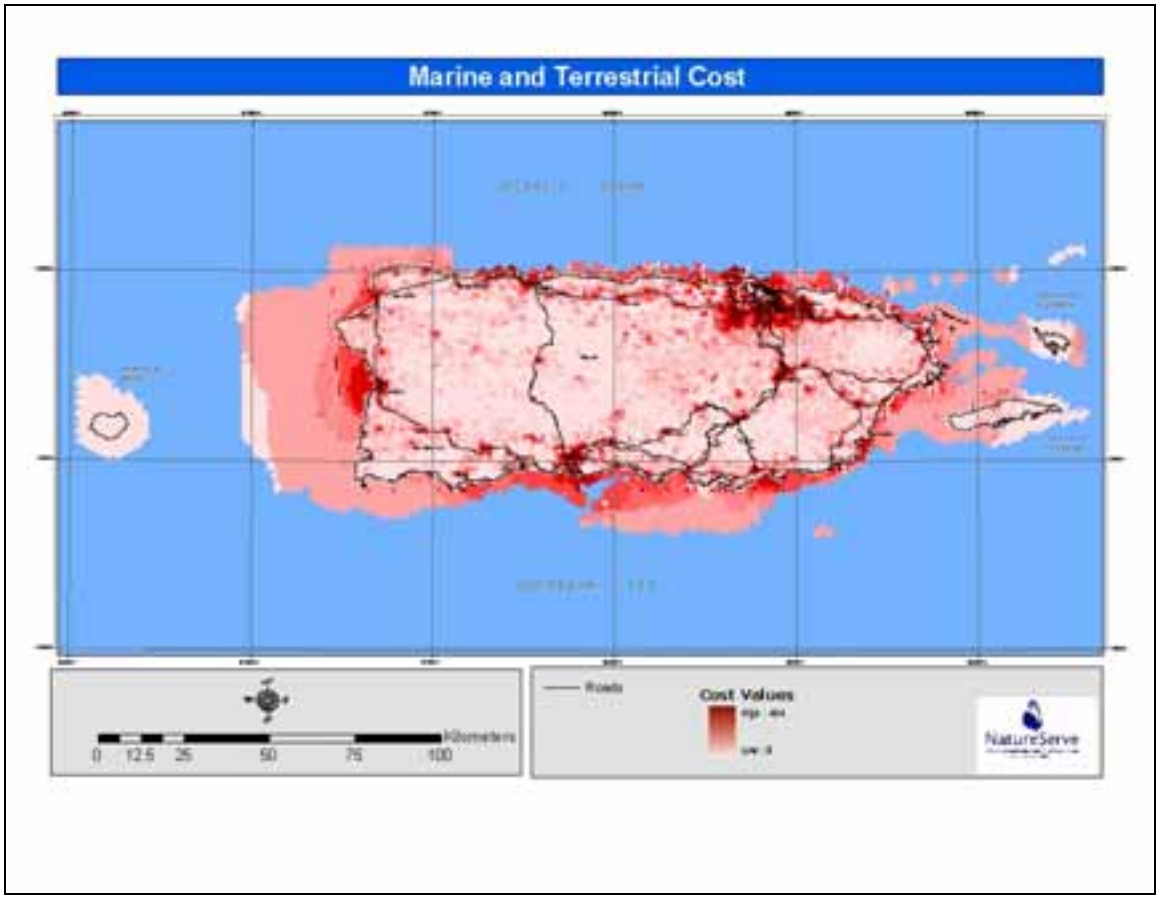
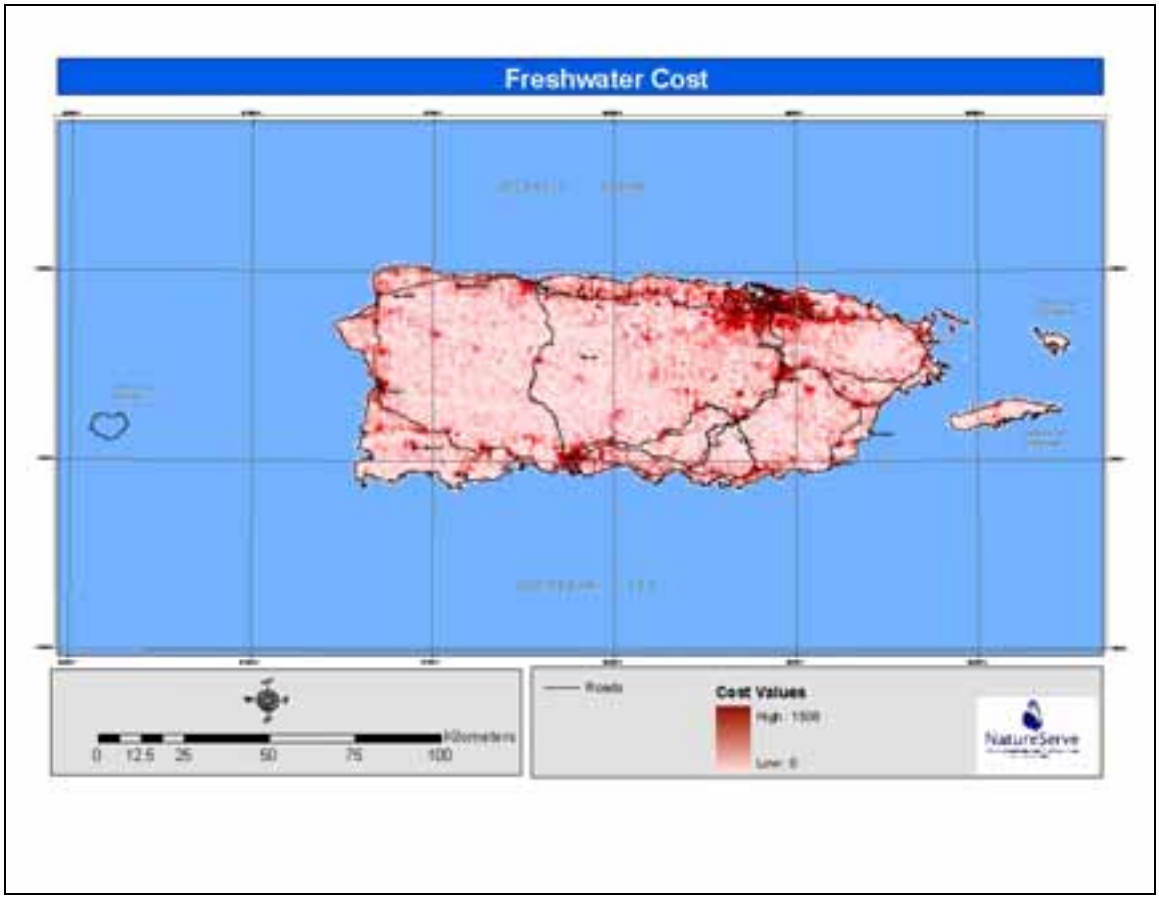

Marine and Terrestrial Cost
Roads
Cost Values
Kilometers
0 12.5 25 50 75 100
NatureServe

Figure 4



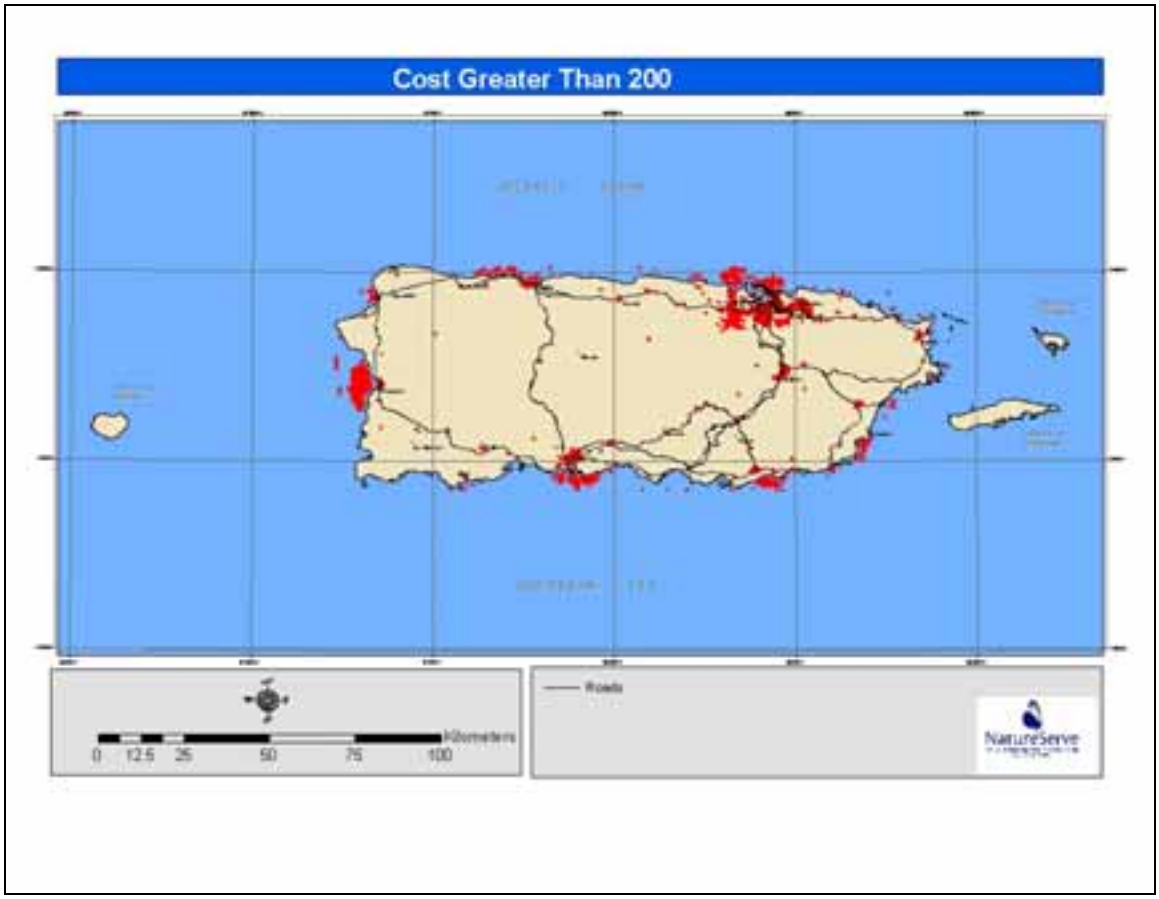
Next, we populated each hexagon with the areal extent of each terrestrial ecological system type, the number of species, the linear extent of freshwater systems, etc. (Appendix 4). Representation goals were set for each element are listed in Appendix 5 – 7. This information is put into the SPOT program.

SPOT Settings

SPOT enables users to set numerical representation goals, establish minimum sizes for contiguous patches of each target, 'lock' analysis units in, or out, of any solution, and adjust the degree of spatial clumping of each solution set. In this study, hexagons that had a cost of greater than 200 were locked out (Figure 5). This removed 606 hexagons from the total population or 4.04% (333 hexagons or 3.55% in the Terrestrial Environment and 273 hexagons in the Marine Environment or 4.86%). That is, these hexagons with a cost greater than 200 could not be selected in any solution. Furthermore, we ran two runs (10 million iterations each) sequentially. The first run was just the Terrestrial/Marine elements. Then, taking the results from the Terrestrial/Marine SPOT run and locking in these results we ran the freshwater elements. By locking in the results from the Terrestrial/Marine SPOT run would allow SPOT to automatically count

towards the overall goals the freshwater elements that were coincident with locked in hexagons from the first run.

Figure 5



In this study, we used spatial optimization to explore alternative island-wide reserve designs that were based on multiple levels of target representation. In all scenarios, representation goals varied only for terrestrial ecological system types. Scenario 1 is the 10% run where representation goals were set at 10% of estimated historic extent of each terrestrial ecological system type. Scenario 2 is the 30% run and consisted of 30% of historic extent of terrestrial ecological systems. Scenario 3 is similar as Scenario 1 except the hexagons that were contained on terrestrial protected areas (Figure 6) were locked into the final solution.

Figure 6

Results

Scenario 1 selected 3,794 hexagons amounting to 25.31% of area (figure 7). Scenario 2 selected 7,190 hexagons amounting to 47.96% of area (figure 8). Scenario 3 selected 3,942 hexagons amounting to 26.29% of area (figure 9).

Figure 7

Figure 8

Figure 9

The amounts and goals obtained by elements that were selected by each scenario are listed in Appendix 5 for Scenario 1, Appendix 6 for Scenario 2, and Appendix 7 for Scenario 3. In addition, Table 2 illustrates the various percentages of hexagons selected and the respective percentage. Also, Table 3 shows the various percentages of hexagons selected and the respective percentage with the total number of hexagons adjusted. The adjusted amount is reflective of the 606 hexagons that were removed from the SPOT runs because of their cost being greater than 200.

Table 2

	Total Number of Hexagons	Total Number of Terrestrial Hexagons	Total Number of Marine Hexagons	Total Number of Hexagons Selected
Scenario1	14,993	9,377	5,616	3,794
Scenario2	14,993	9,377	5,616	7,190
Scenario3	14,993	9,377	5,616	3,942

	Total Number of Terrestrial Hexagon Selected	Total Number of Marine Hexagons Selected	Percent of Total	Percent of Terrestrial Total	Percent of Marine Total
Scenario1	2,689	1,105	25.31	28.68	19.68
Scenario2	6,104	1,086	47.96	65.10	19.34
Scenario3	2,848	1,094	26.29	30.37	19.48

Table 3

	Total Number of Hexagons (Adjusted)	Total Number of Terrestrial Hexagons	Total Number of Marine Hexagons	Total Number of Hexagons Selected
Scenario1	14,327	9,044	5,343	3,794
Scenario2	14,327	9,044	5,343	7,190
Scenario3	14,327	9,044	5,343	3,942

	Total Number of Terrestrial Hexagon Selected	Total Number of Marine Hexagons Selected	Percent of Total	Percent of Terrestrial Total	Percent of Marine Total
Scenario1	2,689	1,105	18.77	29.73	20.68
Scenario2	6,104	1,086	42.60	67.49	20.33
Scenario3	2,848	1,094	19.88	31.49	20.48

Summary and Conclusion

Biodiversity conservation assessment and priority-setting occurs at a variety of spatial scales, each of which emphasizes certain information to address specific concerns. Methods, data, tools, and institutional relationships are needed that integrate information across all themes and scales. This integration is essential to effective conservation of biodiversity and other resource values. Here, we focused on major ecosystems and vulnerable species in terrestrial, freshwater, and coastal marine environments. This assessment was intended to provide a demonstration of the types of data, analyses, and technical tools that could meet needs for biodiversity conservation planning throughout Puerto Rico. Here we provided a brief description of the identification of conservation targets, and development of multiple island-wide reserve designs using varying assumptions about needed representation goals. This effort helps to set the stage for subsequent data development and analyses that will further integrate decision making from regional to local scales and across multiple conservation themes.

We used spatial optimization tools to facilitate generation of multiple reserve design scenarios. Representation goals were set as 10% and 30% of historic terrestrial systems and 30% to 60% of marine habitats, coastal marine densities and freshwater habitats. Final results ranged from 26% to 48% of the study area selected in order to achieve goals. The results of Terrestrial/Marine SPOT run of Scenario 2 indicated that we did not need to run the Freshwater element segment. That is, with larger representation goals set for terrestrial ecological systems, the stated goals for freshwater stream segments was met through areas already ‘swept in’ to near-optimal solution sets. However, Scenario1 and Scenario 3 needed to run the freshwater elements component in order to reach the freshwater goals. In any case, we have yet to fully evaluate needs for connectivity among freshwater stream segments selected within these alternatives.

For long-term conservation strategies in Puerto Rico a multi-step conservation action plan can be approached utilizing data, methods, and tools outlined by this study. It

remains clear that, while Puerto Rico has an extensive history of land and water use pressures, there remains many options to advance biodiversity conservation.

Literature Cited

Andelman S., I. Ball, F. Davis, and D. Stoms., 1999 SITES v. 1.0., An analytical toolbox for designing ecoregional conservation portfolios.

Figueroa Colón, J. 1996 Geoclimatic regions of Puerto Rico (map) U.S Geological Survey Water Resource Division. San Juan Puerto Rico.

Helmer, E. H., O. Ramos, T. Del M. López, M. Quiñones, and W. Diaz. 2002. Mapping the forest type and land cover of Puerto Rico, a component of the Caribbean biodiversity hotspot. Caribbean Journal of Science, Vol. 38, No. 3-4, 165-183.

Josse, C., G. Navarro, P. Comer, R. Evans, D. Faber-Langendoen, M. Fellows, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague. 2003. Ecological Systems of Latin America and the Caribbean: A Working Classification of Terrestrial Systems. NatureServe, Arlington, VA.

Shoutis, D. 2004. *SPOT Spatial Portfolio Optimization Tool*. The Nature Conservancy.

Appendix 1 (metadata for creating terrestrial ecological systems)

Helner_code	Ecological Systems and land use occurring in Puerto Rico	Figueroa Geology	Figueroa Ecozone	CERP_pr_Mangroves_marine	CERP_pr_Mangroves_keys	Hydro	CERP_coastal_estuarine	Estuarine_zone	CE						
	Helmer Urban	29													
	Helmer Agriculture	28													
	Helmer Agriculture/Hay	27													
	Helmer Pasture	26													
	Helmer Quarry	31													
	Helmer Water	33													
	HelmerActive sun/shade coffee, submontane and lower montane wet forest/shrub	16													
	Helmer Submontane and lower montane wet evergreen forest/shrub and active/abandoned shade coffee	17													
	Coconut Palm Plantation	8													
	Salt Mining	32													
	Caribbean lowland dry semi-deciduous forest	1, 2													
	Caribbean coastal thorn scrub	3													
	Caribbean serpentine dry scrub	4		Dry, Subtropical Dry											
	Caribbean lowland moist serpentine woodland	4		Moist, Subtropical Moist											
	Caribbean seasonal evergreen lowland forest	6, 7, 9, 10, 11, 12	alluvial, limestone												
	Caribbean montane/submontane karst forest	6,7,9,10													
	Caribbean edapho-xerophilous “mogote” complex	11, 12													

Caribbean montane wet serpentine woodland	13, 14													
Caribbean wet submontane/lowland forest	15													
Caribbean montane wet elfin forest	19, 20													
Caribbean wet montane forest	18													
Caribbean seasonal evergreen submontane/lowland forest	6, 7	Intrustive, Extrusive, Sedimentary												
Caribbean montane wet short shrubland	19, 20													
Caribbean riparian forest and woodland	All Natural Vegetation Types (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 22, 24, 25, 30)					Stream Order 4- 6 (60 Meter Buffer)								
Caribbean floodplain forest	All Natural Vegetation Types (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 24, 25, 30) and all of 22	Alluvial				large rivers with 120 meter buffer								
Caribbean freshwater marsh	24						No							
Caribbean salt flats and ponds	25													
Caribbean estuarine mangrove forest	21						Yes							

	non_coastal Polys														
Caribbean maritime shore/estuary mouth mangrove	21 coastal polys only			Yes	Yes										
Caribbean emergent herbaceous estuary	24, 23						Yes								
Caribbean coastal sandy beach	30														
Caribbean coastal rocky shore	30														
Caribbean sand savanna															
Caribbean stabilized sand dune															
Caribbean coastal palm swamp															

Appendix 2 (Terrestrial and Marine Cost)

Name	Data Source	Score (points)	Comments
Road_class0	Pr_roads 100ha_hexs	0 = 0 Km 10 = 0-2.5 km 30 = 2.5-5 km 62 = 5-10 km 125 = 10-20 km 250 = >20 km	
Road_class1_2	Pr_roads 100ha_hexs	0 = 0 km 40 = 0-0.762 km 120 = 0.762-1.521 km 250 = 1.521-2.710 km 500 = >2.710 km	
Road_class3	Pr_roads 100ha_hexs	0 = 0 km 20 = 0-0.531 km 60 = 0.531-1.007 km 125 = 1.007-1.566 km 250 = >1.566	
Industrial	Pr_industry77_91 100ha_hexs	100	Cost value scaled proportional to area of hexagon.
Agricultural	Pr_landuse_fin_type (Land use types: Coconut Palm Plantation, Helmer Agriculture, Helmer Agriculture/Hay) 100ha_hexs	10	Cost value scaled proportional to area of hexagon.
Natural	Pr_landuse_fin_type	0	Cost value scaled

	(Land use types: Helmer submontane and lower montane wet evergreen forest shrub and active/abandoned shade coffee) 100ha_hexs		proportional to area of hexagon.
Seminatural	Pr_landuse_fin_type (Land use types: Helmer Active sun/shade coffee, submontane and lower montane wet forest/shrub) 100ha_hexs	5	Cost value scaled proportional to area of hexagon.
Suburban	Pr_landuse_fin_type (Land use types: Helmer Pastures) 100ha_hexs	50	Cost value scaled proportional to area of hexagon.
Urban	Pr_landuse_fin_type (Land use types: Helmer Quarry, Helmer Urban, Salt Mining) 100ha_hexs	100	Cost value scaled proportional to area of hexagon.
Tourism	Pr_tourismzones2003 100ha_hexs	1 = 0.010-0.058 3 = 0.058-0.236 7 = 0.236-1.083 10 = 1.083-1463958.541	
Census	Pr_tiger_block_pop_2000 100ha_hexs	0 = 0 10 = 0-989 45 = 989-3,016 70 = 3,016-5,915 100 = >5,915	Cost value scaled proportional to area of hexagon.

Appendix 3 (Freshwater Cost)

Name	Data Source	Score (points)	Comments
Road_class0	Pr_roads 100ha_hexs	0 = 0 Km 10 = 0-2.5 km 30 = 2.5-5 km 62 = 5-10 km 125 = 10-20 km 250 = >20 km	
Road_class1_2	Pr_roads 100ha_hexs	0 = 0 km 40 = 0-0.762 km 120 = 0.762-1.521 km 250 = 1.521-2.710 km 500 = >2.710 km	
Road_class3	Pr_roads 100ha_hexs	0 = 0 km 20 = 0-0.531 km 60 = 0.531-1.007 km 125 = 1.007-1.566 km 250 = >1.566	
Industrial	Pr_industry77_91 100ha_hexs	100	Cost value scaled proportional to area of hexagon.
Agricultural	Pr_landuse_fin_type (Land use types: Coconut Palm Plantation, Helmer Agriculture, Helmer Agriculture/Hay) 100ha_hexs	10	Cost value scaled proportional to area of hexagon.
Natural	Pr_landuse_fin_type (Land use types: Helmer submontane and lower montane wet evergreen forest shrub and active/abandoned shade coffee) 100ha_hexs	0	Cost value scaled proportional to area of hexagon.
Seminatural	Pr_landuse_fin_type (Land use types: Helmer Active sun/shade coffee, submontane and	5	Cost value scaled proportional to

	lower montane wet forest/shrub) 100ha_hexs		area of hexagon.
Suburban	Pr_landuse_fin_type (Land use types: Helmer Pastures) 100ha_hexs	50	Cost value scaled proportional to area of hexagon.
Urban	Pr_landuse_fin_type (Land use types: Helmer Quarry, Helmer Urban, Salt Mining) 100ha_hexs	100	Cost value scaled proportional to area of hexagon.
Tourism	Pr_tourismzones2003 100ha_hexs	1 = 0.010-0.058 3 = 0.058-0.236 7 = 0.236-1.083 10 = 1.083-1463958.541	
Census	Pr_tiger_block_pop_2000 100ha_hexs	0 = 0 10 = 0-989 45 = 989-3,016 70 = 3,016-5,915 100 = >5,915	Cost value scaled proportional to area of hexagon.
CERCAL Sites	EPA Basins	1000	Times the number in each hexagon

Freshwater Cost Flow Accumulation Model Process

The following is a discussion on the steps and process to create a Cost Flow Accumulation Model (CFAM).

Software Needed:

Arc/Info ver 8.0 or later with GRID, Or ArcGIS ver 9.0 or later with Spatial Analyst.

Input Data:

1) Cost Layer
2) Digital Elevation Model (DEM)
3) Final Cost Boundary Units (i.e. Watersheds, Hexagons, or Grid Cells)

Step 1

Subsampling the data and converting the data to GRIDS

First subsample your DEM to a cell size that fits your Cost Boundary Units (CBU) if and only if your CBU are homogeneous in size (i.e. 100-hectare hexagons). Take your cost layer and make two GRIDS out of the cost data with a similar cell resolution as the DEM. The first cost GRID will use the cost value as the GRID value and we will call this GRID COST_GRD. The second GRID will have GRID values from the CBU id (i.e. Hexagon id) and we will call this GRID CBU_GRD.

Step 2

Creating a Flow Direction Model

Next, create a flow direction model using either Arc/Info or ArcGIS and we will call this data set FLOW_DIR. Review the help on this command but the only inputs for this command are the DEM. The results of running the Flow direction function are a flow direction model use in later steps for the flow accumulation model.

Step 3

Creating a Flow Accumulation Model

Now use the FLOWACCUMULATION function in either ArcGIS or ARC/INFO. See help on the function. We will run this function twice with two different outputs and parameters. The first run will have inputs as follows: FLOW_DIR with no input weighted RASTER. The result of this will be a GRID named FLOW_ACC_NW, which is flow accumulation with no weight. The second run will be a repeat of the first run except the COST_GRD will be used as the input weighted RASTER and this will be called FLOW_ACC_WW, which is flow accumulation with weight (i.e. cost).

The values in the FLOW_ACC_NW GRID are the number of cells that feed into each other cells. For example, if a particular cell in the FLOW_ACC_NW GRID has a value of 20, then, 20 cells feed into that particular cell.

The values in the FLOW_ACC_WW GRID are the summed values of the weights that flow into that cell. For example, say three cells flow into a particular cell and we will name this cell "Cell A". These three cells have values as follows: 10, 5, and 8. Then "Cell A" will have a summed value of 23 (8 + 5 + 10).

Step 4

Getting the Average Flow Accumulation Cost

If the average flow accumulation value is needed then do the following: Using Map Algebra take the FLOW_ACC_WW and divide it by the FLOW_ACC_NW. This gives the average flow accumulation cost to each cell and we will call this GRID the FLOW_ACC_AVG GRID.

Something to be aware of with this averaging process. If cells that have no cost (i.e. no weight) flow into other cells (which is very likely), then the average may be lower than the total. Case in point, say a particular cell (Cell A) has 20 cells flowing into it. So the cell value in the FLOW_ACC_NW GRID will be 20. Now, let us say that due to cost (i.e. weight) the FLOW_ACC_WW GRID has a value of 200 for that same cell (Cell A). So the average cost will be 10 (200/20). Now we also know that "Cell A" has an original

total cost of 170 from the COST_GRD GRID. In addition, only two cells that flow into "Cell A" have a cost and their cost is 15 each (for a total of 30). So 170 + 15 + 15 = 200 (in the FLOW_ACC_WW GRID). Therefore the value for "Cell A" in each respective GRID are as follows: 170 in the COST_GRD, 200 in the FLOW_ACC_WW, and 10 in the FLOW_ACC_AVG.

Step 5.

Getting the Average Flow Accumulation Cost back into the CBU.

Take the CUB_GRD GRID and the FLOW_ACC_AVG GRID and combine these two GRIDS into one GRID. This can be done using the COMBINE function in ARC/INFO or ArcGIS. The combine function gives unique combines of the values from each GRID. The result of the combine will be a single GRID with 4 fields. The fields are as follows: Value, Count, CUB_ID, and AVG_FLOW_COST.

Summarize in ArcGIS on CUB_ID by the Average of AVG_FLOW_COST. Note, one can also perform the sum of AVG_FLOW_COST if and only if this meets ones needs. That is, if the GRID cell size is similar to the area of the CUB and the CUB is homogeneous in size then the results by summing or averaging should be very similar. Now we have the Average Flow Accumulation Cost by CUB_ID in a table (i.e. dbf or Geodatabase format) and we will call this file avg_flow_acc_by_cub.dbf. Now join the avg_flow_acc_by_cub.dbf to your polygons of CUB using the joining field CUB_ID. Make sure that you populate all the values in your CUB polygon data. That is, if there is no avg_flow_cost for a particular CUB polygon then the value for that particular CUB polygon should be calculated to 0.

Appendix 4 (Target Elements for SPOT)

Element Name	Target Type
Caribbean lowland dry semi-deciduous forest	terrestrial ecological system
Caribbean floodplain forest	terrestrial ecological system
Caribbean coastal thorn scrub	terrestrial ecological system
Caribbean wet submontane/lowland forest	terrestrial ecological system
Caribbean seasonal evergreen lowland forest	terrestrial ecological system
Caribbean seasonal evergreen submontane/lowland forest	terrestrial ecological system
Caribbean montane wet serpentine woodland	terrestrial ecological system
Caribbean wet montane forest	terrestrial ecological system
Caribbean estuarine mangrove forest	terrestrial ecological system
Caribbean maritime shore/estuary mouth mangrove	terrestrial ecological system
Caribbean riparian forest and woodland	terrestrial ecological system
Caribbean coastal sandy shore	terrestrial ecological system
Caribbean montane wet short shrubland	terrestrial ecological system
Caribbean coastal rocky shore	terrestrial ecological system
Caribbean montane wet elfin forest	terrestrial ecological system
Caribbean freshwater marsh	terrestrial ecological system
Caribbean edapho-xerophilous mogote complex	terrestrial ecological system
Caribbean salt flats and ponds	terrestrial ecological system
Caribbean serpentine dry scrub	terrestrial ecological system
Caribbean montane/submontane karst forest	terrestrial ecological system
Caribbean emergent herbaceous estuary	terrestrial ecological system
Caribbean lowland moist serpentine woodland	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, < 600 meters elevation EDU 1	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, < 600 meters elevation EDU 2	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, < 600 meters elevation EDU 3	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, < 600 meters elevation EDU 4	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, < 600 meters elevation EDU 5	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, > 600 meters elevation EDU 1	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, > 600 meters elevation EDU 2	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, > 600 meters elevation EDU 3	Freshwater Ecological System
Headwaters: Stream order 1, 2 and 3, > 600 meters elevation EDU 4	Freshwater Ecological System
Medium Rivers: Stream order 4, 5 and 6 No Karst EDU 1	Freshwater Ecological System
Medium Rivers: Stream order 4, 5 and 6 No Karst EDU 2	Freshwater Ecological System
Medium Rivers: Stream order 4, 5 and 6 No Karst EDU 3	Freshwater Ecological System
Medium Rivers: Stream order 4, 5 and 6 No Karst EDU 4	Freshwater Ecological System
Large Rivers: Stream order = 7 No Karst EDU 1	Freshwater Ecological System
Large Rivers: Stream order = 7 No Karst EDU 2	Freshwater Ecological System
Large Rivers: Stream order = 7 No Karst EDU 3	Freshwater Ecological System
Large Rivers: Stream order = 7 No Karst EDU 4	Freshwater Ecological System
Karstic freshwater Streams	Freshwater Ecological System

Karstic freshwater Pools	Freshwater Ecological System
Coastal Acqicludes EDU 1	Freshwater Ecological System
Coastal Acqicludes EDU 2	Freshwater Ecological System
Coastal Acqicludes EDU 3	Freshwater Ecological System
Coastal Acqicludes EDU 4	Freshwater Ecological System
Coastal Acqicludes EDU 5	Freshwater Ecological System
freshwater lakes	Freshwater Ecological System
Coral Wall	Marine Ecological System
Lagoon/Reef Crest/Shoreline Intertidal_Linear Reef	Marine Ecological System
Lagoon/Reef Crest/Shoreline Intertidal_Colonized Bedrock and Pavement/Colonised Pavements with Sand and Channels	Marine Ecological System
Forereef/Bank/Shelf Escarpment_Patch Reef (Individual) Scattered Coral/Rock in Unconsolidated Sediment	Marine Ecological System
Bank/Shelf Escarpment/Forereef_Linear reef/Spur and Groove Reef	Marine Ecological System
Bank/Shelf Escarpment/Forereef_Colonized Bedrock/Colonized Pavement with Sand and Channels	Marine Ecological System
Bank/Shelf_Patch Reef (Individual and Aggregated)/ Scattered Coral/Rock in Unconsolidated Sediment	Marine Ecological System
Bank/Shelf_Linear Reef/Spur and Groove Reef	Marine Ecological System
Bank/Shelf_Colonized Bedrock/Colonized Pavement with Sand and Channels	Marine Ecological System
Backreef_Patch Reef (Individual and Aggregated)/Scattered Coral/Rock in Unconsolidated Sediment	Marine Ecological System
Backreef_Colonized Bedrock/Colonized Pavement with Sand and Channels	Marine Ecological System
Backreef_Linear reef	Marine Ecological System
Seagrass/Backreef	Marine Ecological System
Seagrass/Bank Shelf	Marine Ecological System
Seagrass/Lagoon	Marine Ecological System
Pelicans 1996-1999	Marine Species habitat/aggregation
Mangrove Interface	Marine Species habitat/aggregation
Manatee Adult Density	Marine Species habitat/aggregation
Humpback Whale	Marine Species habitat/aggregation
SPAGs: known spawning aggregations for the Red Hind, tiger grouper, mutton snapper	Marine Species habitat/aggregation
Sea Turtle_Eretmochelys_nest	Marine Species habitat/aggregation
Sea Turtle_Chelonia_nest	Marine Species habitat/aggregation
Sea Turtle_Dermochelys_nest	Marine Species habitat/aggregation
ACCIPITER STRIATUS VENATOR	animal species
AGELAIUS XANTHOMUS	animal species
AMAZONA VITTATA	animal species

AMPHISBAENA BAKERI	animal species
ANAS BAHAMENSIS	animal species
ANOLIS COOKI	animal species
ANOLIS CUVIERI	animal species
ANOLIS OCCULTUS	animal species
ANOLIS PONCENSIS	animal species
ANOLIS ROOSEVELTI	animal species
ANTHRACOTHORAX VIRIDIS	animal species
BUTEO PLATYPTERUS BRUNNESCENS	animal species
CAPRIMULGUS NOCTITHERUS	animal species
CARETTA CARETTA	animal species
CHARADRIUS ALEXANDRINUS TENUIROSTRI	animal species
CHELONIA MYDAS	animal species
COLUMBA INORNATA WETMOREI	animal species
COLUMBA LEUCOCEPHALA	animal species
CYCLURA CORNUTA	animal species
DENDROCYGNA ARBOREA	animal species
DENDROICA ANGELAE	animal species
DERMOCHELYS CORIACEA	animal species
ELEUTHERODACTYLUS COOKI	animal species
ELEUTHERODACTYLUS ENEIDAE	animal species
ELEUTHERODACTYLUS GRYLLUS	animal species
ELEUTHERODACTYLUS HEDRICKI	animal species
ELEUTHERODACTYLUS JASPERI	animal species
ELEUTHERODACTYLUS KARLSCHMIDTI	animal species
ELEUTHERODACTYLUS LOCUSTUS	animal species
ELEUTHERODACTYLUS PORTORICENSIS	animal species
ELEUTHERODACTYLUS RICHMONDI	animal species
ELEUTHERODACTYLUS UNICOLOR	animal species
ELEUTHERODACTYLUS WIGHTMANAE	animal species
EPICRATES INORNATUS	animal species
ERETMOCHELYS IMBRICATA	animal species
FULICA CARIBAEA	animal species
LOXIGILLA PORTORICENSIS	animal species
MABUYA SLOANEI	animal species
MELANERPES PORTORICENSIS	animal species
MONOPHYLLUS REDMANI PORTORICENSIS	animal species

MORMOOPS BLAINVILLII CINNAMOMEUM	animal species
MYIARCHUS ANTILLARUM	animal species
NESOSPINGUS SPECULIFERUS	animal species
OXYURA DOMINICA	animal species
OXYURA JAMAICENSIS	animal species
PELTOPHRYNE LEMUR	animal species
PORZANA FLAVIVENTER	animal species
PTERONOTUS PARNELLII PORTORICENSIS	animal species
SPHAERODACTYLUS MICROPITHECUS	animal species
STERNA ANTILLARUM	animal species
TACHYBAPTUS DOMINICUS	animal species
TRICHECHUS MANATUS MANATUS	animal species
ABUTILON COMMUTATUM	PLANT SPECIES
ADIANTUM VILLOSUM	PLANT SPECIES
ADIANTUM WILSONII	PLANT SPECIES
AECHMEA LINGULATA	PLANT SPECIES
AECHMEA NUDICAULIS	PLANT SPECIES
ALSOPHILA AMINTAE	PLANT SPECIES
ALSOPHILA BROOKSII	PLANT SPECIES
AMARANTHUS AUSTRALIS	PLANT SPECIES
AMBROSIA TENUIFOLIA	PLANT SPECIES
ANEMIA HIRSUTA	PLANT SPECIES
ANISEIA MARTINICENSIS	PLANT SPECIES
ANTIRHEA PORTORICENSIS	PLANT SPECIES
ANTIRHEA SINTENISII	PLANT SPECIES
ARDISIA LUQUILLENSIS	PLANT SPECIES
ARISTIDA CHASEAE	PLANT SPECIES
ARISTIDA PORTORICENSIS	PLANT SPECIES
AUERODENDRON PAUCIFLORUM	PLANT SPECIES
BACCHARIS DIOICA	PLANT SPECIES
BANARA VANDERBILTII	PLANT SPECIES
BASIPHYLLAEA ANGUSTIFOLIA	PLANT SPECIES
BRACHIONIDIUM CILIOLATUM	PLANT SPECIES
BRACHIONIDIUM PARVUM	PLANT SPECIES
BRUNFELSIA LACTEA	PLANT SPECIES
BRUNFELSIA PORTORICENSIS	PLANT SPECIES
BRUNSFELSIA DENSIFOLIA	PLANT SPECIES

BUCHNERA LONGIFOLIA	PLANT SPECIES
BULBOSTYLIS CURASSAVICA	PLANT SPECIES
BULBOSTYLIS JUNCIFORMIS	PLANT SPECIES
BURMANNIA CAPITATA	PLANT SPECIES
BUXUS VAHLII	PLANT SPECIES
BYRSONIMA SPICATA	PLANT SPECIES
CAESALPINIA CULEBRAE	PLANT SPECIES
CAESALPINIA MONENSIS	PLANT SPECIES
CAESALPINIA PORTORICENSIS	PLANT SPECIES
CALLICARPA AMPLA	PLANT SPECIES
CALYPTRANTHES DUMETORUM	PLANT SPECIES
CALYPTRANTHES LUQUILLENSIS	PLANT SPECIES
CALYPTRANTHES PEDUNCULARIS	PLANT SPECIES
CALYPTRANTHES PORTORICENSIS	PLANT SPECIES
CALYPTRANTHES THOMASIANA	PLANT SPECIES
CALYPTRANTHES TRIFLORA	PLANT SPECIES
CALYPTRANTHES WOODBURYI	PLANT SPECIES
CALYPTRANTHES ZUZYGIUM	PLANT SPECIES
CALYPTRONOMA RIVALIS	PLANT SPECIES
CAMPYLOCENTRUM PACHYRRHIZUM	PLANT SPECIES
CHAMAECRISTA GLANDULOSA VAR MIRABIL	PLANT SPECIES
CHAMAESYCE MONENSIS	PLANT SPECIES
CHAMAESYCE ORBIFOLIA	PLANT SPECIES
CLIDEMIA PORTORICENSIS	PLANT SPECIES
COCCOLOBA PALLIDA	PLANT SPECIES
COCCOLOBA RUGOSA	PLANT SPECIES
COCCOLOBA SINTENISII VAR. ALBA	PLANT SPECIES
COCCOLOBA TENUIFOLIA	PLANT SPECIES
CONOSTEGIA HOTTEANA	PLANT SPECIES
CORDIA BAHAMENSIS	PLANT SPECIES
CORDIA RUPICOLA	PLANT SPECIES
CORDIA WAGNERIORUM	PLANT SPECIES
CORNUTIA OBOVATA	PLANT SPECIES
CRESCENTIA PORTORICENSIS	PLANT SPECIES
CROTON NUMMULARIIFOLIUS	PLANT SPECIES
CYBIANTHUS SINTENISII	PLANT SPECIES
CYNANCHUM MONENSE	PLANT SPECIES

CYPERUS FULIGINEUS	PLANT SPECIES
CYPERUS URBANII	PLANT SPECIES
CYRTOPODIUM PUNCTATUM	PLANT SPECIES
DALEA CARTHAGENENSIS VAR PORTORICAN	PLANT SPECIES
DAPHNOPSIS HELLERIANA	PLANT SPECIES
DENDROPEMON PURPUREUS	PLANT SPECIES
DICHANTHELIUM ACICULARE	PLANT SPECIES
DICLIPTERA KRUGII	PLANT SPECIES
DIDYMOPANAX GLEASONI	PLANT SPECIES
DIGITARIA ARGILLACEA	PLANT SPECIES
DIOSPYROS SINTENISII	PLANT SPECIES
DROSERA CAPILLARIS	PLANT SPECIES
ECHINODORUS TENELLUS VAR LATIFOLIUS	PLANT SPECIES
ELEOCHARIS PACHYSTYLA	PLANT SPECIES
ELEOCHARIS ROSTELLATA	PLANT SPECIES
ENCYCLIA COCHLEATA VAR ALBA	PLANT SPECIES
ENTADA POLYPHYLLA	PLANT SPECIES
ERIOSEMA CRINITUM	PLANT SPECIES
ERYTHRINA EGGERSII	PLANT SPECIES
EUBRACHION AMBIGUUM	PLANT SPECIES
EUGENIA BELLONIS	PLANT SPECIES
EUGENIA EGGERSII	PLANT SPECIES
EUGENIA HAEMATOCARPA	PLANT SPECIES
EUGENIA SESSILIFLORA	PLANT SPECIES
EUGENIA STEWARDSONII	PLANT SPECIES
EUGENIA WOODBURYANA	PLANT SPECIES
EUPATORIUM OTEROI	PLANT SPECIES
EUPHORBIA OERSTEDIANA	PLANT SPECIES
EURYSTYLES ANANASSOCOMOS	PLANT SPECIES
GAUSSIA ATTENUATA	PLANT SPECIES
GESNERIA PAUCIFLORA	PLANT SPECIES
GOETZEA ELEGANS	PLANT SPECIES
GYMNOPOGON FOLIOSUS	PLANT SPECIES
HARRISIA PORTORICENSIS	PLANT SPECIES
HENRIETTEA MEMBRANIFOLIA	PLANT SPECIES
ILEX COOKII	PLANT SPECIES
ILEX SINTENISII	PLANT SPECIES

ILEX URBANIANA	PLANT SPECIES
IPOMOEA CARNEA SSP FISTULOSA	PLANT SPECIES
JUGLANS JAMAICENSIS	PLANT SPECIES
JUSTICIA CULEBRITAE	PLANT SPECIES
LAGENOCARPUS GUIANENSIS	PLANT SPECIES
LANTANA RETICULATA	PLANT SPECIES
LANTANA TRIFOLIA	PLANT SPECIES
LEPANTHES DODIANA	PLANT SPECIES
LEPANTHES ELTOROENSIS	PLANT SPECIES
LEPTOCEREUS GRANTIANUS	PLANT SPECIES
LEPTOCEREUS QUADRICOSTATUS	PLANT SPECIES
LINDSAEA PORTORICENSIS	PLANT SPECIES
LIPARIS VEXILLIFERA	PLANT SPECIES
LYCASTE BARRINGTONIAE	PLANT SPECIES
LYCOPODIUM VERTICILLATUM	PLANT SPECIES
MAGNOLIA SPLENDENS	PLANT SPECIES
MARATTIA LAEVIS	PLANT SPECIES
MAYTENUS CYMOSA	PLANT SPECIES
MAYTENUS ELONGATA	PLANT SPECIES
MAYTENUS PONCEANA	PLANT SPECIES
MICONIA FOVEOLATA	PLANT SPECIES
MICONIA PYCNONEURA	PLANT SPECIES
MIKANIA STEVENSIANA	PLANT SPECIES
MITRACARPUS MAXWELLIAE	PLANT SPECIES
MITRACARPUS POLYCLADUS	PLANT SPECIES
MYRCIA PAGANII	PLANT SPECIES
MYRCIARIA BORINQUENA	PLANT SPECIES
MYRCIARIA MYRTIFOLIA	PLANT SPECIES
MYRICA HOLDRIDGEANA	PLANT SPECIES
OCOTEA FOENICULACEA	PLANT SPECIES
OSMUNDA CINNAMOMEA	PLANT SPECIES
OSSAEA KRUGIANA	PLANT SPECIES
OSSAEA SCABROSA	PLANT SPECIES
OTTOSCHULZIA RHODOXYLON	PLANT SPECIES
OXANDRA LANCEOLATA	PLANT SPECIES
PANICUM STEVENSIANUM	PLANT SPECIES
PAVONIA PANICULATA	PLANT SPECIES

PEPEROMIA MYRTIFOLIA	PLANT SPECIES
PEPEROMIA WHEELERI	PLANT SPECIES
PERSEA KRUGII	PLANT SPECIES
PILEA LEPTOPHYLLA	PLANT SPECIES
PIRIQUETA VISCOSA	PLANT SPECIES
PISONIA HELLERI	PLANT SPECIES
PLEODENDRON MACRANTHUM	PLANT SPECIES
POLYGALA COWELLII	PLANT SPECIES
POLYPODIUM SECTIFRONS	PLANT SPECIES
PORTULACA CAULERPOIDES	PLANT SPECIES
PROCKIA CRUCIS	PLANT SPECIES
PSEUDOPHOENIX SARGENTII VAR SAONAE	PLANT SPECIES
PSIDIUM INSULANUM	PLANT SPECIES
PSIDIUM SINTENISII	PLANT SPECIES
PSYCHILIS KRUGII	PLANT SPECIES
RHYNCHOSPORA NITENS	PLANT SPECIES
RHYNCHOSPORA OLIGANTHA	PLANT SPECIES
RHYNCHOSPORA OLIGANTHA VAR BREVISET	PLANT SPECIES
RHYNCHOSPORA RARIFLORA	PLANT SPECIES
ROCHEFORTIA SPINOSA	PLANT SPECIES
ROLLINIA MUCOSA	PLANT SPECIES
SABAL CAUSIARUM	PLANT SPECIES
SABICEA CINEREA	PLANT SPECIES
SCHOEPFIA ARENARIA	PLANT SPECIES
SCHOEPFIA CHRYSOPHYLLOIDES	PLANT SPECIES
SCHOEPFIA SCHREBERI	PLANT SPECIES
SCLERIA DORADOENSIS	PLANT SPECIES
SCLERIA GEORGIANA	PLANT SPECIES
SCLERIA PAUCIFLORA	PLANT SPECIES
SCLERIA VERTICILLATA	PLANT SPECIES
SCOLOSANTHUS GRANDIFOLIUS	PLANT SPECIES
SESUVIUM MARITIMUM	PLANT SPECIES
SETARIA CHAPMANII	PLANT SPECIES
SETARIA MAGNA	PLANT SPECIES
SOLANUM CAMPECHIENSE	PLANT SPECIES
SOLANUM DRYMOPHILUM	PLANT SPECIES
SOLANUM POLYGAMUM	PLANT SPECIES

SOLANUM WOODBURYI	PLANT SPECIES
SOPHORA TOMENTOSA	PLANT SPECIES
STAHLIA MONOSPERMA	PLANT SPECIES
STYRAX PORTORICENSIS	PLANT SPECIES
SYMPLOCOS LANATA	PLANT SPECIES
TERNSTROEMIA HEPTASEPALA	PLANT SPECIES
TERNSTROEMIA LUQUILLENSIS	PLANT SPECIES
TERNSTROEMIA SUBSESSILIS	PLANT SPECIES
TILLANDSIA FLEXUOSA	PLANT SPECIES
TILLANDSIA LINEATISPICA	PLANT SPECIES
TILLANDSIA PRUINOSA	PLANT SPECIES
TILLANDSIA TENUIFOLIA VAR TENUIFOLI	PLANT SPECIES
TRICHILIA TRIACANTHA	PLANT SPECIES
URERA CHLOROCARPA	PLANT SPECIES
VERNONIA PROCTORII	PLANT SPECIES
WALTHERIA CALCICOLA	PLANT SPECIES
XYLOSMA PACHYPHYLLUM	PLANT SPECIES
XYLOSMA SCHWANECKEANUM	PLANT SPECIES
ZANTHOXYLUM BIFOLIOLATUM	PLANT SPECIES
ZANTHOXYLUM THOMASIANUM	PLANT SPECIES
ZIZIPHUS RIGNONII	PLANT SPECIES
ZIZIPHUS TAYLORII	PLANT SPECIES

Appendix 5 (Scenario 1 Results)

Amount in Solution	GOAL Amount	GOAL Percent	Percent Met of Goal	TargetType	Units	Name	Total Amount Available in HA
381954.825	381869.637	30.00	100.02	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 1	1272898.79
262766.247	262735.126	30.00	100.01	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 2	875783.754
666842.898	666832.288	30.00	100.00	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 3	2222774.294
541899.508	541665.874	30.00	100.04	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 4	1805552.913
23348.484	23115.23	30.00	101.01	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 5	77050.767

27541.099	25588.5315	30.00	107.63	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 1	85295.105
100273.698	100241.0808	30.00	100.03	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 2	334136.936
58093.745	49985.334	30.00	116.22	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 3	166617.78
44702.271	44394.573	30.00	100.69	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 4	147981.91
3359.611	3280.4712	30.00	102.41	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 1	10934.904
1711.788	1539.1089	30.00	111.22	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 2	5130.363
5947.354	5178.2526	30.00	114.85	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 3	17260.842
1575.852	1562.4939	30.00	100.85	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 4	5208.313
226575.62	226397.1507	30.00	100.08	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 1	754657.169
255092.079	254883.5715	30.00	100.08	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 2	849611.905
481835.141	481455.3522	30.00	100.08	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 3	1604851.174
357122.186	356650.419	30.00	100.13	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 4	1188834.73
216988.5657	210613.8761	30.00	103.03	Freshwater	Meters Length	Karst Freshwater Streams	702046.2537
13.63	13.5228	30.00	100.79	Freshwater	Hectares	Karst Freshwater Pools	45.076
66.089	25.2411	30.00	261.83	Freshwater	Hectares	Freshwater Lakes	84.137
7883.115	7816.9347	30.00	100.85	Freshwater	Meters Length	Coastal Acq EDU 1	26056.449
1175.152	680.6094	30.00	172.66	Freshwater	Meters Length	Coastal Acq EDU 2	2268.698
6483.819	4743.0543	30.00	136.70	Freshwater	Meters Length	Coastal Acq EDU 3	15810.181
25383.296	24658.3734	30.00	102.94	Freshwater	Meters Length	Coastal Acq EDU 4	82194.578
18612.13	18207.6153	30.00	102.22	Freshwater	Meters	Coastal Acq EDU 5	60692.051

					Length		
19709.1	12471.8	22.67	158.03	Ecological Systems	Hectares	Caribbean lowland dry semi-deciduous forest	55021.23
515.43	470	47.52	109.67	Ecological Systems	Hectares	Caribbean floodplain forest	989.1
469.26	278.3	27.63	168.62	Ecological Systems	Hectares	Caribbean coastal thorn scrub	1007.1
20252.16	11750.4	24.79	172.35	Ecological Systems	Hectares	Caribbean wet submontane/lowland forest	47409.03
14770.17	11999.2	32.47	123.09	Ecological Systems	Hectares	Caribbean seasonal evergreen lowland forest	36957.15
37455.66	25430.8	24.02	147.28	Ecological Systems	Hectares	Caribbean seasonal evergreen submontane/lowland fo	105886.17
2973.06	556.5	11.47	534.24	Ecological Systems	Hectares	Caribbean montane wet serpentine woodland	4853.52
7865.91	4277.8	20.19	183.88	Ecological Systems	Hectares	Caribbean wet montane forest	21192.57
1134.36	1019	47.09	111.32	Ecological Systems	Hectares	Caribbean estuarine mangrove forest	2164.05
3169.71	2237	44.98	141.69	Ecological Systems	Hectares	Caribbean maritime shore/estuary mouth mangrove	4972.86
4856.22	3102.2	28.46	156.54	Ecological Systems	Hectares	Caribbean riparian forest and woodland	10900.62
1153.35	746.1	31.79	154.58	Ecological Systems	Hectares	Caribbean coastal sandy beach	2347.02
166.77	28	7.45	595.61	Ecological Systems	Hectares	Caribbean montane wet short shrubland	375.75
490.41	44.5	5.60	1102.04	Ecological Systems	Hectares	Caribbean coastal rocky shore	795.15
1793.88	540.3	14.39	332.02	Ecological Systems	Hectares	Caribbean montane wet elfin forest	3754.98
1474.11	1422	46.25	103.66	Ecological Systems	Hectares	Caribbean freshwater marsh	3074.76
9802.17	7633.9	17.65	128.40	Ecological	Hectares	Caribbean edapho-	43259.94

				Systems		xerophilous "mogote" complex	
335.79	216	43.20	155.46	Ecological Systems	Hectares	Caribbean salt flats and ponds	499.95
30.6	31	101.31	98.71	Ecological Systems	Hectares	Caribbean serpentine dry scrub	30.6
1105.2	616.1	10.51	179.39	Ecological Systems	Hectares	Caribbean montane/submontane karst forest	5861.25
1534.86	1520	49.07	100.98	Ecological Systems	Hectares	Caribbean emergent herbaceous estuary	3097.62
1574.55	1121.91	33.33	140.35	Ecological Systems	Hectares	Caribbean lowland moist serpentine woodland	3365.73
1987.461	1986.7269	30.00	100.04	Marine	Hectares	Coral Wall Reef	6622.423
482.306	425.901	30.00	113.24	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Linear Reef	1419.67
857.325	854.0472	30.00	100.38	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Colonized Bedrock and Pavement/Colonised Pavements with Sand and Channels	2846.824
21.264	10.9458	30.00	194.27	Marine	Hectares	Forereef/Bank/Shelf Escarpment_Patch Reef (Individual) Scattered Coral/Rock in Unconsolidated Sediment	36.486
639.951	601.8531	30.00	106.33	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Linear reef/Spur and Groove Reef	2006.177
332.568	330.7575	30.00	100.55	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Colonized	1102.525

4153.888	4151.6313	30.00	100.05	Marine	Hectares	Bedrock/Colonized Pavement with Sand and Channels Bank/Shelf_Patch Reef (Individual and Aggregated)/ Scattered Coral/Rock in Unconsolidated Sediment	13838.771
1362.941	1046.535	30.00	130.23	Marine	Hectares	Bank/Shelf_Linear Reef/Spur and Groove Reef	3488.45
15172.533	15160.1232	30.00	100.08	Marine	Hectares	Bank/Shelf_Colonized Bedrock/Colonized Pavement with Sand and Channels	50533.744
24.906	21.06	30.00	118.26	Marine	Hectares	Backreef_Patch Reef (Individual and Aggregated)/Scattered Coral/Rock in Unconsolidated Sediment	70.2
33.366	30.1149	30.00	110.80	Marine	Hectares	Backreef Linear Reef	100.383
65.225	26.9109	30.00	242.37	Marine	Hectares	Backreef_Colonized Bedrock/Colonized Pavement with Sand and Channels	89.703
2294.338	1657.4289	30.00	138.43	Marine	Hectares	Seagrass/Lagoon	5524.763
16492.72	16482.105	30.00	100.06	Marine	Hectares	Seagrass/Bank Shelf	54940.35
569.092	561.7662	30.00	101.30	Marine	Hectares	Seagrass/Backreef	1872.554
2	2	100.00	100.00	Flora EOs	Number of Eos	ABUTILON COMMUTATUM	2
4	4	100.00	100.00	Flora EOs	Number of Eos	ADIANTUM VILLOSUM	4
2	2	100.00	100.00	Flora EOs	Number of Eos	ADIANTUM WILSONII	2
3	3	100.00	100.00	Flora EOs	Number of	AECHMEA LINGULATA	3

1	1	100.00	100.00	Flora EOs	Number of Eos	AECHMEA NUDICAULIS	1
5	5	100.00	100.00	Flora EOs	Number of Eos	ALSOPHILA AMINTAE	5
5	5	100.00	100.00	Flora EOs	Number of Eos	ALSOPHILA BROOKSII	5
2	2	100.00	100.00	Flora EOs	Number of Eos	AMARANTHUS AUSTRALIS	2
1	1	100.00	100.00	Flora EOs	Number of Eos	AMBROSIA TENUIFOLIA	1
2	2	100.00	100.00	Flora EOs	Number of Eos	ANEMIA HIRSUTA	2
4	4	100.00	100.00	Flora EOs	Number of Eos	ANISEIA MARTINICENSIS	4
3	3	100.00	100.00	Flora EOs	Number of Eos	ANTIRHEA PORTORICENSIS	3
3	3	100.00	100.00	Flora EOs	Number of Eos	ANTIRHEA SINTENISII	3
3	3	100.00	100.00	Flora EOs	Number of Eos	ARDISIA LUQUILLENSIS	3
4	4	100.00	100.00	Flora EOs	Number of Eos	ARISTIDA CHASEAE	4
5	5	100.00	100.00	Flora EOs	Number of Eos	ARISTIDA PORTORICENSIS	5
1	1	100.00	100.00	Flora EOs	Number of Eos	AUERODENDRON PAUCIFLORUM	1
3	3	100.00	100.00	Flora EOs	Number of Eos	BACCHARIS DIOICA	3
3	3	100.00	100.00	Flora EOs	Number of Eos	BANARA VANDERBILTII	3
2	2	100.00	100.00	Flora EOs	Number of Eos	BASIPHYLLAEA ANGUSTIFOLIA	2
2	2	100.00	100.00	Flora EOs	Number of Eos	BRACHIONIDIUM CILIOLATUM	2
1	1	100.00	100.00	Flora EOs	Number of Eos	BRACHIONIDIUM PARVUM	1

4	4	100.00	100.00	Flora EOs	Number of Eos	BRUNFELSIA LACTEA	4
5	5	100.00	100.00	Flora EOs	Number of Eos	BRUNFELSIA PORTORICENSIS	5
2	2	100.00	100.00	Flora EOs	Number of Eos	BRUNSFELSIA DENSIFOLIA	2
1	1	100.00	100.00	Flora EOs	Number of Eos	BUCHNERA LONGIFOLIA	1
4	4	100.00	100.00	Flora EOs	Number of Eos	BULBOSTYLIS CURASSAVICA	4
1	1	100.00	100.00	Flora EOs	Number of Eos	BULBOSTYLIS JUNCIFORMIS	1
2	2	100.00	100.00	Flora EOs	Number of Eos	BURMANNIA CAPITATA	2
3	4	100.00	75.00	Flora EOs	Number of Eos	BUXUS VAHLII	4
2	2	100.00	100.00	Flora EOs	Number of Eos	BYRSONIMA SPICATA	2
3	3	100.00	100.00	Flora EOs	Number of Eos	CAESALPINIA CULEBRAE	3
1	1	100.00	100.00	Flora EOs	Number of Eos	CAESALPINIA MONENSIS	1
2	2	100.00	100.00	Flora EOs	Number of Eos	CAESALPINIA PORTORICENSIS	2
3	3	100.00	100.00	Flora EOs	Number of Eos	CALLICARPA AMPLA	3
2	2	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES DUMETORUM	2
5	5	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES LUQUILLENSIS	5
2	2	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES PEDUNCULARIS	2
2	2	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES PORTORICENSIS	2
1	1	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES THOMASIANA	1
3	3	100.00	100.00	Flora EOs	Number of	CALYPTRANTHES	3

					Eos	TRIFLORA	
5	5	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES WOODBURYI	5
1	1	100.00	100.00	Flora EOs	Number of Eos	CALYPTRANTHES ZUZYGIUM	1
9	9	100.00	100.00	Flora EOs	Number of Eos	CALYPTRONOMA RIVALIS	9
3	3	100.00	100.00	Flora EOs	Number of Eos	CAMPYLOCENTRUM PACHYRRHIZUM	3
7	8	100.00	87.50	Flora EOs	Number of Eos	CHAMAECRISTA GLANDULOSA VAR MIRABIL	8
2	2	100.00	100.00	Flora EOs	Number of Eos	CHAMAESYCE MONENSIS	2
2	2	100.00	100.00	Flora EOs	Number of Eos	CHAMAESYCE ORBIFOLIA	2
5	5	100.00	100.00	Flora EOs	Number of Eos	CLIDEMIA PORTORICENSIS	5
1	1	100.00	100.00	Flora EOs	Number of Eos	COCCOLOBA PALLIDA	1
14	14	100.00	100.00	Flora EOs	Number of Eos	COCCOLOBA RUGOSA	14
1	1	100.00	100.00	Flora EOs	Number of Eos	COCCOLOBA SINTENISII VAR. ALBA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	COCCOLOBA TENUIFOLIA	1
5	5	100.00	100.00	Flora EOs	Number of Eos	CONOSTEGIA HOTTEANA	5
1	1	100.00	100.00	Flora EOs	Number of Eos	CORDIA BAHAMENSIS	1
5	5	100.00	100.00	Flora EOs	Number of Eos	CORDIA RUPICOLA	5
1	1	100.00	100.00	Flora EOs	Number of Eos	CORDIA WAGNERIORUM	1
5	5	100.00	100.00	Flora EOs	Number of Eos	CORNUTIA OBOVATA	5
9	9	100.00	100.00	Flora EOs	Number of	CRESCENTIA	9

					Eos	PORTORICENSIS	
1	1	100.00	100.00	Flora EOs	Number of Eos	CROTON NUMMULARIIFOLIUS	1
2	2	100.00	100.00	Flora EOs	Number of Eos	CYBIANTHUS SINTENISII	2
3	3	100.00	100.00	Flora EOs	Number of Eos	CYNANCHUM MONENSE	3
1	1	100.00	100.00	Flora EOs	Number of Eos	CYPERUS FULIGINEUS	1
3	3	100.00	100.00	Flora EOs	Number of Eos	CYPERUS URBANII	3
4	4	100.00	100.00	Flora EOs	Number of Eos	CYRTOPODIUM PUNCTATUM	4
1	1	100.00	100.00	Flora EOs	Number of Eos	DALEA CARTHAGENENSIS VAR PORTORICAN	1
13	13	100.00	100.00	Flora EOs	Number of Eos	DAPHNOPSIS HELLERIANA	13
6	6	100.00	100.00	Flora EOs	Number of Eos	DENDROPEMON PURPUREUS	6
3	3	100.00	100.00	Flora EOs	Number of Eos	DICHANTHELIUM ACICULARE	3
1	1	100.00	100.00	Flora EOs	Number of Eos	DICLIPTERA KRUGII	1
4	4	100.00	100.00	Flora EOs	Number of Eos	DIDYMOPANAX GLEASONI	4
1	1	100.00	100.00	Flora EOs	Number of Eos	DIGITARIA ARGILLACEA	1
5	5	100.00	100.00	Flora EOs	Number of Eos	DIOSPYROS SINTENISII	5
5	5	100.00	100.00	Flora EOs	Number of Eos	DROSERA CAPILLARIS	5
3	3	100.00	100.00	Flora EOs	Number of Eos	ECHINODORUS TENELLUS VAR LATIFOLIUS	3
2	2	100.00	100.00	Flora EOs	Number of Eos	ELEOCHARIS PACHYSTYLA	2

2	2	100.00	100.00	Flora EOs	Number of Eos	ELEOCHARIS ROSTELLATA	2
1	1	100.00	100.00	Flora EOs	Number of Eos	ENCYCLIA COCHLEATA VAR ALBA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	ENTADA POLYPHYLLA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	ERIOSEMA CRINITUM	1
4	4	100.00	100.00	Flora EOs	Number of Eos	ERYTHRINA EGGERSII	4
1	1	100.00	100.00	Flora EOs	Number of Eos	EUBRACHION AMBIGUUM	1
2	2	100.00	100.00	Flora EOs	Number of Eos	EUGENIA BELLONIS	2
4	4	100.00	100.00	Flora EOs	Number of Eos	EUGENIA EGGERSII	4
5	5	100.00	100.00	Flora EOs	Number of Eos	EUGENIA HAEMATOCARPA	5
4	4	100.00	100.00	Flora EOs	Number of Eos	EUGENIA SESSILIFLORA	4
2	2	100.00	100.00	Flora EOs	Number of Eos	EUGENIA STEWARDSONII	2
10	10	100.00	100.00	Flora EOs	Number of Eos	EUGENIA WOODBURYANA	10
2	2	100.00	100.00	Flora EOs	Number of Eos	EUPATORIUM OTEROI	2
3	3	100.00	100.00	Flora EOs	Number of Eos	EUPHORBIA OERSTEDIANA	3
1	1	100.00	100.00	Flora EOs	Number of Eos	EURYSTYLES ANANASSOCOMOS	1
5	5	100.00	100.00	Flora EOs	Number of Eos	GAUSSIA ATTENUATA	5
2	2	100.00	100.00	Flora EOs	Number of Eos	GESNERIA PAUCIFLORA	2
6	6	100.00	100.00	Flora EOs	Number of Eos	GOETZEA ELEGANS	6

3	3	100.00	100.00	Flora EOs	Number of Eos	GYMNOPOGON FOLIOSUS	3
4	4	100.00	100.00	Flora EOs	Number of Eos	HARRISIA PORTORICENSIS	4
2	2	100.00	100.00	Flora EOs	Number of Eos	HENRIETTEA MEMBRANIFOLIA	2
4	4	100.00	100.00	Flora EOs	Number of Eos	ILEX COOKII	4
2	2	100.00	100.00	Flora EOs	Number of Eos	ILEX SINTENISII	2
4	4	100.00	100.00	Flora EOs	Number of Eos	ILEX URBANIANA	4
2	2	100.00	100.00	Flora EOs	Number of Eos	IPOMOEA CARNEA SSP FISTULOSA	2
1	1	100.00	100.00	Flora EOs	Number of Eos	JUGLANS JAMAICENSIS	1
1	1	100.00	100.00	Flora EOs	Number of Eos	JUSTICIA CULEBRITAE	1
1	1	100.00	100.00	Flora EOs	Number of Eos	LAGENOCARPUS GUIANENSIS	1
1	1	100.00	100.00	Flora EOs	Number of Eos	LANTANA RETICULATA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	LANTANA TRIFOLIA	1
5	5	100.00	100.00	Flora EOs	Number of Eos	LEPANTHES DODIANA	5
2	2	100.00	100.00	Flora EOs	Number of Eos	LEPANTHES ELTOROENSIS	2
1	1	100.00	100.00	Flora EOs	Number of Eos	LEPTOCEREUS GRANTIANUS	1
11	11	100.00	100.00	Flora EOs	Number of Eos	LEPTOCEREUS QUADRICOSTATUS	11
4	4	100.00	100.00	Flora EOs	Number of Eos	LINDSAEA PORTORICENSIS	4
1	1	100.00	100.00	Flora EOs	Number of Eos	LIPARIS VEXILLIFERA	1
1	1	100.00	100.00	Flora EOs	Number of	LYCASTE	1

					Eos	BARRINGTONIAE	
1	1	100.00	100.00	Flora EOs	Number of Eos	LYCOPODIUM VERTICILLATUM	1
5	5	100.00	100.00	Flora EOs	Number of Eos	MAGNOLIA SPLENDENS	5
4	4	100.00	100.00	Flora EOs	Number of Eos	MARATTIA LAEVIS	4
2	2	100.00	100.00	Flora EOs	Number of Eos	MAYTENUS CYMOSA	2
6	6	100.00	100.00	Flora EOs	Number of Eos	MAYTENUS ELONGATA	6
4	4	100.00	100.00	Flora EOs	Number of Eos	MAYTENUS PONCEANA	4
3	3	100.00	100.00	Flora EOs	Number of Eos	MICONIA FOVEOLATA	3
4	4	100.00	100.00	Flora EOs	Number of Eos	MICONIA PYCNONEURA	4
3	3	100.00	100.00	Flora EOs	Number of Eos	MIKANIA STEVENSIANA	3
1	1	100.00	100.00	Flora EOs	Number of Eos	MITRACARPUS MAXWELLIAE	1
2	2	100.00	100.00	Flora EOs	Number of Eos	MITRACARPUS POLYCLADUS	2
3	3	100.00	100.00	Flora EOs	Number of Eos	MYRCIA PAGANII	3
2	2	100.00	100.00	Flora EOs	Number of Eos	MYRCIARIA BORINQUENA	2
4	4	100.00	100.00	Flora EOs	Number of Eos	MYRCIARIA MYRTIFOLIA	4
6	6	100.00	100.00	Flora EOs	Number of Eos	MYRICA HOLDRIDGEANA	6
3	3	100.00	100.00	Flora EOs	Number of Eos	OCOTEA FOENICULACEA	3
2	2	100.00	100.00	Flora EOs	Number of Eos	OSMUNDA CINNAMOMEA	2
2	2	100.00	100.00	Flora EOs	Number of Eos	OSSAEA KRUGIANA	2

2	2	100.00	100.00	Flora EOs	Number of Eos	OSSAEA SCABROSA	2
16	16	100.00	100.00	Flora EOs	Number of Eos	OTTOSCHULZIA RHODOXYLON	16
3	3	100.00	100.00	Flora EOs	Number of Eos	OXANDRA LANCEOLATA	3
1	1	100.00	100.00	Flora EOs	Number of Eos	PANICUM STEVENSIANUM	1
1	1	100.00	100.00	Flora EOs	Number of Eos	PAVONIA PANICULATA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	PEPEROMIA MYRTIFOLIA	1
3	3	100.00	100.00	Flora EOs	Number of Eos	PEPEROMIA WHEELERI	3
3	3	100.00	100.00	Flora EOs	Number of Eos	PERSEA KRUGII	3
1	1	100.00	100.00	Flora EOs	Number of Eos	PILEA LEPTOPHYLLA	1
2	2	100.00	100.00	Flora EOs	Number of Eos	PIRIQUETA VISCOSA	2
1	1	100.00	100.00	Flora EOs	Number of Eos	PISONIA HELLERI	1
4	4	100.00	100.00	Flora EOs	Number of Eos	PLEODENDRON MACRANTHUM	4
19	19	100.00	100.00	Flora EOs	Number of Eos	POLYGALA COWELLII	19
2	2	100.00	100.00	Flora EOs	Number of Eos	POLYPODIUM SECTIFRONS	2
6	6	100.00	100.00	Flora EOs	Number of Eos	PORTULACA CAULERPOIDES	6
2	2	100.00	100.00	Flora EOs	Number of Eos	PROCKIA CRUCIS	2
1	1	100.00	100.00	Flora EOs	Number of Eos	PSEUDOPHOENIX SARGENTII VAR SAONAE	1
1	1	100.00	100.00	Flora EOs	Number of Eos	PSIDIUM INSULANUM	1

2	2	100.00	100.00	Flora EOs	Number of Eos	PSIDIUM SINTENISII	2
3	3	100.00	100.00	Flora EOs	Number of Eos	PSYCHILIS KRUGII	3
2	2	100.00	100.00	Flora EOs	Number of Eos	RHYNCHOSPORA NITENS	2
2	2	100.00	100.00	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA	2
3	3	100.00	100.00	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA VAR BREVISET	3
1	1	100.00	100.00	Flora EOs	Number of Eos	RHYNCHOSPORA RARIFLORA	1
1	1	100.00	100.00	Flora EOs	Number of Eos	ROCHEFORTIA SPINOSA	1
4	4	100.00	100.00	Flora EOs	Number of Eos	ROLLINIA MUCOSA	4
4	4	100.00	100.00	Flora EOs	Number of Eos	SABAL CAUSIARUM	4
3	3	100.00	100.00	Flora EOs	Number of Eos	SABICEA CINEREA	3
6	6	100.00	100.00	Flora EOs	Number of Eos	SCHOEPFIA ARENARIA	6
2	2	100.00	100.00	Flora EOs	Number of Eos	SCHOEPFIA CHRYSOPHYLLOIDES	2
2	2	100.00	100.00	Flora EOs	Number of Eos	SCHOEPFIA SCHREBERI	2
5	5	100.00	100.00	Flora EOs	Number of Eos	SCLERIA DORADOENSIS	5
3	3	100.00	100.00	Flora EOs	Number of Eos	SCLERIA GEORGIANA	3
1	1	100.00	100.00	Flora EOs	Number of Eos	SCLERIA PAUCIFLORA	1
3	3	100.00	100.00	Flora EOs	Number of Eos	SCLERIA VERTICILLATA	3
2	2	100.00	100.00	Flora EOs	Number of Eos	SCOLOSANTHUS GRANDIFOLIUS	2

1	1	100.00	100.00	Flora EOs	Number of Eos	SESUVIUM MARITIMUM	1
1	1	100.00	100.00	Flora EOs	Number of Eos	SETARIA CHAPMANII	1
2	2	100.00	100.00	Flora EOs	Number of Eos	SETARIA MAGNA	2
1	1	100.00	100.00	Flora EOs	Number of Eos	SOLANUM CAMPECHIENSE	1
1	1	100.00	100.00	Flora EOs	Number of Eos	SOLANUM DRYMOPHILUM	1
1	1	100.00	100.00	Flora EOs	Number of Eos	SOLANUM POLYGAMUM	1
4	4	100.00	100.00	Flora EOs	Number of Eos	SOLANUM WOODBURYI	4
2	2	100.00	100.00	Flora EOs	Number of Eos	SOPHORA TOMENTOSA	2
9	9	100.00	100.00	Flora EOs	Number of Eos	STAHLIA MONOSPERMA	9
2	2	100.00	100.00	Flora EOs	Number of Eos	STYRAX PORTORICENSIS	2
2	2	100.00	100.00	Flora EOs	Number of Eos	SYMPLOCOS LANATA	2
5	5	100.00	100.00	Flora EOs	Number of Eos	TERNSTROEMIA HEPTASEPALA	5
3	3	100.00	100.00	Flora EOs	Number of Eos	TERNSTROEMIA LUQUILLENSIS	3
1	1	100.00	100.00	Flora EOs	Number of Eos	TERNSTROEMIA SUBSESSILIS	1
3	3	100.00	100.00	Flora EOs	Number of Eos	TILLANDSIA FLEXUOSA	3
3	3	100.00	100.00	Flora EOs	Number of Eos	TILLANDSIA LINEATISPICA	3
3	3	100.00	100.00	Flora EOs	Number of Eos	TILLANDSIA PRUINOSA	3
8	8	100.00	100.00	Flora EOs	Number of Eos	TILLANDSIA TENUIFOLIA VAR TENUIFOLI	8

7	7	100.00	100.00	Flora EOs	Number of Eos	TRICHILIA TRIACANTHA	7
3	3	100.00	100.00	Flora EOs	Number of Eos	URERA CHLOROCARPA	3
1	1	100.00	100.00	Flora EOs	Number of Eos	VERNONIA PROCTORII	1
3	3	100.00	100.00	Flora EOs	Number of Eos	WALTHERIA CALCICOLA	3
3	3	100.00	100.00	Flora EOs	Number of Eos	XYLOSMA PACHYPHYLLUM	3
3	3	100.00	100.00	Flora EOs	Number of Eos	XYLOSMA SCHWANECKEANUM	3
1	1	100.00	100.00	Flora EOs	Number of Eos	ZANTHOXYLUM BIFOLIOLATUM	1
5	5	100.00	100.00	Flora EOs	Number of Eos	ZANTHOXYLUM THOMASIANUM	5
4	5	100.00	80.00	Flora EOs	Number of Eos	ZIZIPHUS RIGNONII	5
3	3	100.00	100.00	Flora EOs	Number of Eos	ZIZIPHUS TAYLORII	3
22	20	60.61	110.00	Fauna Eos	Number of Eos	ACCIPITER STRIATUS VENATOR	33
13	15	100.00	86.67	Fauna Eos	Number of Eos	AGELAIUS XANTHOMUS	15
3	3	100.00	100.00	Fauna Eos	Number of Eos	AMAZONA VITTATA	3
3	3	100.00	100.00	Fauna Eos	Number of Eos	AMPHISBAENA BAKERI	3
5	5	100.00	100.00	Fauna Eos	Number of Eos	ANAS BAHAMENSIS	5
12	12	100.00	100.00	Fauna Eos	Number of Eos	ANOLIS COOKI	12
1	1	100.00	100.00	Fauna Eos	Number of Eos	ANOLIS CUVIERI	1
9	9	100.00	100.00	Fauna Eos	Number of Eos	ANOLIS OCCULTUS	9
2	2	100.00	100.00	Fauna Eos	Number of	ANOLIS PONCENSIS	2

1	1	100.00	100.00	Fauna Eos	Number of Eos	ANOLIS ROOSEVELTI	1
1	1	100.00	100.00	Fauna Eos	Number of Eos	ANTHRACOTHORAX VIRIDIS	1
15	15	100.00	100.00	Fauna Eos	Number of Eos	BUTEO PLATYPTERUS BRUNNESCENS	15
28	20	37.74	140.00	Fauna Eos	Number of Eos	CAPRIMULGUS NOCTITHERUS	53
5	5	100.00	100.00	Fauna Eos	Number of Eos	CARETTA CARETTA	5
2	2	100.00	100.00	Fauna Eos	Number of Eos	CHARADRIUS ALEXANDRINUS TENUIROSTRI	2
20	20	74.07	100.00	Fauna Eos	Number of Eos	CHELONIA MYDAS	27
22	20	71.43	110.00	Fauna Eos	Number of Eos	COLUMBA INORNATA WETMOREI	28
10	10	100.00	100.00	Fauna Eos	Number of Eos	COLUMBA LEUCOCEPHALA	10
9	9	100.00	100.00	Fauna Eos	Number of Eos	CYCLURA CORNUTA	9
14	14	100.00	100.00	Fauna Eos	Number of Eos	DENDROCYGNA ARBOREA	14
1	1	100.00	100.00	Fauna Eos	Number of Eos	DENDROICA ANGELAE	1
49	50	100.00	98.00	Fauna Eos	Number of Eos	DERMOCHELYS CORIACEA	50
5	5	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS COOKI	5
11	11	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS ENEIDAE	11
1	1	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS GRYLLUS	1
4	4	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS HEDRICKI	4
14	14	100.00	100.00	Fauna Eos	Number of	ELEUTHERODACTYLU	14

					Eos	S JASPERI	
8	8	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS KARLSCHMIDTI	8
1	1	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS LOCUSTUS	1
1	1	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS PORTORICENSIS	1
1	1	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS RICHMONDI	1
1	1	100.00	100.00	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS UNICOLOR	1
22	20	74.07	110.00	Fauna Eos	Number of Eos	EPICRATES INORNATUS	27
42	20	29.85	210.00	Fauna Eos	Number of Eos	ERETMOCHELYS IMBRICATA	67
13	13	100.00	100.00	Fauna Eos	Number of Eos	FULICA CARIBAEA	13
2	2	100.00	100.00	Fauna Eos	Number of Eos	LOXIGILLA PORTORICENSIS	2
8	8	100.00	100.00	Fauna Eos	Number of Eos	MABUYA SLOANEI	8
3	3	100.00	100.00	Fauna Eos	Number of Eos	MELANERPES PORTORICENSIS	3
2	2	100.00	100.00	Fauna Eos	Number of Eos	MONOPHYLLUS REDMANI PORTORICENSIS	2
3	3	100.00	100.00	Fauna Eos	Number of Eos	MORMOOPS BLAINVILLII	3
3	3	100.00	100.00	Fauna Eos	Number of Eos	MYIARCHUS CINNAMOMEUM ANTILLARUM	3
1	1	100.00	100.00	Fauna Eos	Number of Eos	NESOSPINGUS SPECULIFERUS	1
6	6	100.00	100.00	Fauna Eos	Number of Eos	OXYURA DOMINICA	6

24	25	100.00	96.00	Fauna Eos	Number of Eos	OXYURA JAMAICENSIS	25
6	6	100.00	100.00	Fauna Eos	Number of Eos	PELTOPHRYNE LEMUR	6
5	5	100.00	100.00	Fauna Eos	Number of Eos	PORZANA FLAVIVENTER	5
4	4	100.00	100.00	Fauna Eos	Number of Eos	PTERONOTUS PARNELLII PORTORICENSIS	4
2	2	100.00	100.00	Fauna Eos	Number of Eos	SPHAERODACTYLUS MICROPITHECUS	2
16	17	100.00	94.12	Fauna Eos	Number of Eos	STERNA ANTILLARUM	17
11	11	100.00	100.00	Fauna Eos	Number of Eos	TACHYBAPTUS DOMINICUS	11
33	35	100.00	94.29	Fauna Eos	Number of Eos	TRICHECHUS MANATUS MANATUS	35
380421.107	377267.44	65.00	100.84	Marine	Meters Length	Mangrove Interface	580411.452
97364.299	97357.47	65.00	100.01	Marine	Hectares	Whales Distribution	149780.721
10396.066	10396.066	100.00	100.00	Marine	Hectares	SPAGS	10396.066
28339	27946.8	59.99	101.40	Marine	Average Pelican Value	Pelican	46587
28374738	28249424.4	60.00	100.44	Marine	Average Manatee Value	Manatee	47082374
13205	8206.8	60.00	160.90	Marine	Average Sea Turtle Eretmochelys Nest	Sea Turtle Eretmochelys Nest	13678
5337.9166	5286.6	86.47	100.97	Marine	Average Sea Turtle Dermo	Sea Turtle Dermochelys Nest	6113.9166
301	239.4	77.23	125.73	Marine	Average Sea Turtle Chelonia	Sea Turtle Chelonia Nest	310

Appendix 6 (Scenario 2 Results)

Amount in Solution	GOAL Amount	Goal Percent	Percent Met	TargetType	Units	Name	Total Amount Available
665.82	133.5	16.78928	498.741573	Ecological Systems	Hectares	Caribbean coastal rocky shore	795.15
227.16	84	22.35528	270.428571 4	Ecological Systems	Hectares	Caribbean montane wet short shrubland	375.75
52	20	29.85074	260	Fauna Eos	Number of Eos	ERETMOCHELYS IMBRICATA	67
68.12	26.9109	30	253.131630 7	Marine	Hectares	Backreef_Colonized Bedrock/Colonized Pavement with Sand and Channels	89.703
3467.188	1657.4289	30	209.190753 2	Marine	Hectares	Seagrass/Lagoon	5524.763
3256.38	1669.5	34.39771	195.051212 9	Ecological Systems	Hectares	Caribbean montane wet serpentine woodland	4853.52
38	20	37.73584	190	Fauna Eos	Number of Eos	CAPRIMULGUS NOCTITHERUS	53
1429.187	854.0472	30	167.342858 8	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Colonized Bedrock and Pavement/Colonised Pavements with Sand and Channels	2846.824
17.963	10.9458	30	164.108607 9	Marine	Hectares	Forereef/Bank/Shelf Escarpment_Patch Reef (Individual) Scattered Coral/Rock in Unconsolidated Sediment	36.486

13419	8206.8	60	163.5107472	Marine	Average Sea Turtle Eretmochelys Nest	Sea Turtle Eretmochelys Nest	13678
1561.763	1046.535	30	149.2317983	Marine	Hectares	Bank/Shelf_Linear Reef/Spur and Groove Reef	3488.45
2351.7	1620.9	43.16667	145.0860633	Ecological Systems	Hectares	Caribbean montane wet elfin forest	3754.98
2680.65	1848.3	31.53422	145.0332738	Ecological Systems	Hectares	Caribbean montane/submontane karst forest	5861.25
514460.1	377267.44	64.99999	136.3648292	Marine	Meters Length	Mangrove Interface	580411.4
36786	27946.8	59.98840	131.6286659	Marine	Average Pelican Value	Pelican	46587
26	20	74.07407	130	Fauna Eos	Number of Eos	EPICRATES INORNATUS	27
303	239.4	77.22580	126.566416	Marine	Average Sea Turtle Chelonia	Sea Turtle Chelonia Nest	310
33745553	28249424.4	60	119.4557189	Marine	Average Manatee Value	Manatee	47082374
619.025	561.7662	30	110.1926389	Marine	Hectares	Seagrass/Backreef	1872.554
22.413	21.06	30	106.4245014	Marine	Hectares	Backreef_Patch Reef (Individual and Aggregated)/Scattered Coral/Rock in Unconsolidated Sediment	70.2
638.43	601.8531	30	106.07738	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Linear reef/Spur and Groove Reef	2006.177

878.04	834.9	82.90140	105.1670859	Ecological Systems	Hectares	Caribbean coastal thorn scrub	1007.1
21	20	60.60606	105	Fauna Eos	Number of Eos	ACCIPITER STRIATUS VENATOR	33
21	20	71.42857	105	Fauna Eos	Number of Eos	COLUMBA INORNATA WETMOREI	28
9734.94	9306.6	85.37679	104.6025401	Ecological Systems	Hectares	Caribbean riparian forest and woodland	10900.62
13033.08	12833.4	60.55612	101.55594	Ecological Systems	Hectares	Caribbean wet montane forest	21192.57
30.508	30.1149	30	101.3053339	Marine	Hectares	Backreef Linear Reef	100.383
37709.1	37415.4	68.00175	100.7849709	Ecological Systems	Hectares	Caribbean lowland dry semi-deciduous forest	55021.23
2252.79	2238.3	95.36774	100.6473663	Ecological Systems	Hectares	Caribbean coastal sandy beach	2347.02
428.163	425.901	30	100.5311093	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Linear Reef	1419.67
5305.9166	5286.6	86.46830	100.365388	Marine	Average Sea Turtle Dermo	Sea Turtle Dermochelys Nest	6113.916
35362.35	35251.2	74.35545	100.3153084	Ecological Systems	Hectares	Caribbean wet submontane/lowland forest	47409.03
76495.23	76292.4	72.05133	100.2658587	Ecological Systems	Hectares	Caribbean seasonal evergreen submontane/lowland fo	105886.1
22928.49	22901.7	52.93974	100.1169782	Ecological Systems	Hectares	Caribbean edapho-xerophilous "mogote" complex	43259.94
4155.452	4151.6313	30	100.0920289	Marine	Hectares	Bank/Shelf_Patch Reef (Individual and Aggregated)/ Scattered Coral/Rock in Unconsolidated Sediment	13838.77

1988.425	1986.7269	30	100.0854722	Marine	Hectares	Coral Wall Reef	6622.423
330.997	330.7575	30	100.0724095	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Colonized Bedrock/Colonized Pavement with Sand and Channels	1102.525
16487.245	16482.105	30	100.0311853	Marine	Hectares	Seagrass/Bank Shelf	54940.35
97385.218	97357.47	65.00000	100.0285012	Marine	Hectares	Whales Distribution	149780.7
15162.619	15160.1232	30	100.0164629	Marine	Hectares	Bank/Shelf_Colonized Bedrock/Colonized Pavement with Sand and Channels	50533.74
30.6	30.6	100	100	Ecological Systems	Hectares	Caribbean serpentine dry scrub	30.6
2	2	100	100	Flora EOs	Number of Eos	ABUTILON COMMUTATUM	2
4	4	100	100	Flora EOs	Number of Eos	ADIANTUM VILLOSUM	4
2	2	100	100	Flora EOs	Number of Eos	ADIANTUM WILSONII	2
3	3	100	100	Flora EOs	Number of Eos	AECHMEA LINGULATA	3
1	1	100	100	Flora EOs	Number of Eos	AECHMEA NUDICAULIS	1
5	5	100	100	Flora EOs	Number of Eos	ALSOPHILA AMINTAE	5
5	5	100	100	Flora EOs	Number of Eos	ALSOPHILA BROOKSII	5
2	2	100	100	Flora EOs	Number of Eos	AMARANTHUS AUSTRALIS	2
1	1	100	100	Flora EOs	Number of Eos	AMBROSIA TENUIFOLIA	1
2	2	100	100	Flora EOs	Number of	ANEMIA HIRSUTA	2

4	4	100	100	Flora EOs	Number of Eos	ANISEIA MARTINICENSIS	4
3	3	100	100	Flora EOs	Number of Eos	ANTIRHEA PORTORICENSIS	3
3	3	100	100	Flora EOs	Number of Eos	ANTIRHEA SINTENISII	3
3	3	100	100	Flora EOs	Number of Eos	ARDISIA LUQUILLENSIS	3
4	4	100	100	Flora EOs	Number of Eos	ARISTIDA CHASEAE	4
5	5	100	100	Flora EOs	Number of Eos	ARISTIDA PORTORICENSIS	5
1	1	100	100	Flora EOs	Number of Eos	AUERODENDRON PAUCIFLORUM	1
3	3	100	100	Flora EOs	Number of Eos	BACCHARIS DIOICA	3
3	3	100	100	Flora EOs	Number of Eos	BANARA VANDERBILTII	3
2	2	100	100	Flora EOs	Number of Eos	BASIPHYLLAEA ANGUSTIFOLIA	2
2	2	100	100	Flora EOs	Number of Eos	BRACHIONIDIUM CILIOLATUM	2
1	1	100	100	Flora EOs	Number of Eos	BRACHIONIDIUM PARVUM	1
4	4	100	100	Flora EOs	Number of Eos	BRUNFELSIA LACTEA	4
5	5	100	100	Flora EOs	Number of Eos	BRUNFELSIA PORTORICENSIS	5
2	2	100	100	Flora EOs	Number of Eos	BRUNSFELSIA DENSIFOLIA	2
1	1	100	100	Flora EOs	Number of Eos	BUCHNERA LONGIFOLIA	1
4	4	100	100	Flora EOs	Number of Eos	BULBOSTYLIS CURASSAVICA	4
1	1	100	100	Flora EOs	Number of Eos	BULBOSTYLIS JUNCIFORMIS	1

2	2	100	100	Flora EOs	Number of Eos	BURMANNIA CAPITATA	2
2	2	100	100	Flora EOs	Number of Eos	BYRSONIMA SPICATA	2
3	3	100	100	Flora EOs	Number of Eos	CAESALPINIA CULEBRAE	3
1	1	100	100	Flora EOs	Number of Eos	CAESALPINIA MONENSIS	1
2	2	100	100	Flora EOs	Number of Eos	CAESALPINIA PORTORICENSIS	2
3	3	100	100	Flora EOs	Number of Eos	CALLICARPA AMPLA	3
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES DUMETORUM	2
5	5	100	100	Flora EOs	Number of Eos	CALYPTRANTHES LUQUILLENSIS	5
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES PEDUNCULARIS	2
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES PORTORICENSIS	2
1	1	100	100	Flora EOs	Number of Eos	CALYPTRANTHES THOMASIANA	1
3	3	100	100	Flora EOs	Number of Eos	CALYPTRANTHES TRIFLORA	3
5	5	100	100	Flora EOs	Number of Eos	CALYPTRANTHES WOODBURYI	5
1	1	100	100	Flora EOs	Number of Eos	CALYPTRANTHES ZUZYGIUM	1
9	9	100	100	Flora EOs	Number of Eos	CALYPTRONOMA RIVALIS	9
3	3	100	100	Flora EOs	Number of Eos	CAMPYLOCENTRUM PACHYRRHIZUM	3
2	2	100	100	Flora EOs	Number of Eos	CHAMAESYCE MONENSIS	2
2	2	100	100	Flora EOs	Number of Eos	CHAMAESYCE ORBIFOLIA	2
5	5	100	100	Flora EOs	Number of	CLIDEMIA	5

					Eos	PORTORICENSIS	
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA PALLIDA	1
14	14	100	100	Flora EOs	Number of Eos	COCCOLOBA RUGOSA	14
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA SINTENISII VAR. ALBA	1
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA TENUIFOLIA	1
5	5	100	100	Flora EOs	Number of Eos	CONOSTEGIA HOTTEANA	5
1	1	100	100	Flora EOs	Number of Eos	CORDIA BAHAMENSIS	1
5	5	100	100	Flora EOs	Number of Eos	CORDIA RUPICOLA	5
1	1	100	100	Flora EOs	Number of Eos	CORDIA WAGNERIORUM	1
5	5	100	100	Flora EOs	Number of Eos	CORNUTIA OBOVATA	5
9	9	100	100	Flora EOs	Number of Eos	CRESCENTIA PORTORICENSIS	9
1	1	100	100	Flora EOs	Number of Eos	CROTON NUMMULARIIFOLIUS	1
2	2	100	100	Flora EOs	Number of Eos	CYBIANTHUS SINTENISII	2
3	3	100	100	Flora EOs	Number of Eos	CYNANCHUM MONENSE	3
1	1	100	100	Flora EOs	Number of Eos	CYPERUS FULIGINEUS	1
3	3	100	100	Flora EOs	Number of Eos	CYPERUS URBANII	3
4	4	100	100	Flora EOs	Number of Eos	CYRTOPODIUM PUNCTATUM	4
1	1	100	100	Flora EOs	Number of Eos	DALEA CARTHAGENENSIS VAR PORTORICAN	1
13	13	100	100	Flora EOs	Number of	DAPHNOPSIS	13

					Eos	HELLERIANA	
6	6	100	100	Flora EOs	Number of Eos	DENDROPEMON PURPUREUS	6
3	3	100	100	Flora EOs	Number of Eos	DICHANTHELIUM ACICULARE	3
1	1	100	100	Flora EOs	Number of Eos	DICLIPTERA KRUGII	1
4	4	100	100	Flora EOs	Number of Eos	DIDYMOPANAX GLEASONI	4
1	1	100	100	Flora EOs	Number of Eos	DIGITARIA ARGILLACEA	1
5	5	100	100	Flora EOs	Number of Eos	DIOSPYROS SINTENISII	5
5	5	100	100	Flora EOs	Number of Eos	DROSERA CAPILLARIS	5
3	3	100	100	Flora EOs	Number of Eos	ECHINODORUS TENELLUS VAR LATIFOLIUS	3
2	2	100	100	Flora EOs	Number of Eos	ELEOCHARIS PACHYSTYLA	2
2	2	100	100	Flora EOs	Number of Eos	ELEOCHARIS ROSTELLATA	2
1	1	100	100	Flora EOs	Number of Eos	ENCYCLIA COCHLEATA VAR ALBA	1
1	1	100	100	Flora EOs	Number of Eos	ENTADA POLYPHYLLA	1
1	1	100	100	Flora EOs	Number of Eos	ERIOSEMA CRINITUM	1
4	4	100	100	Flora EOs	Number of Eos	ERYTHRINA EGGERSII	4
1	1	100	100	Flora EOs	Number of Eos	EUBRACHION AMBIGUUM	1
2	2	100	100	Flora EOs	Number of Eos	EUGENIA BELLONIS	2
4	4	100	100	Flora EOs	Number of Eos	EUGENIA EGGERSII	4

5	5	100	100	Flora EOs	Number of Eos	EUGENIA HAEMATOCARPA	5
4	4	100	100	Flora EOs	Number of Eos	EUGENIA SESSILIFLORA	4
2	2	100	100	Flora EOs	Number of Eos	EUGENIA STEWARDSONII	2
10	10	100	100	Flora EOs	Number of Eos	EUGENIA WOODBURYANA	10
2	2	100	100	Flora EOs	Number of Eos	EUPATORIUM OTEROI	2
3	3	100	100	Flora EOs	Number of Eos	EUPHORBIA OERSTEDIANA	3
1	1	100	100	Flora EOs	Number of Eos	EURYSTYLES ANANASSOCOMOS	1
5	5	100	100	Flora EOs	Number of Eos	GAUSSIA ATTENUATA	5
2	2	100	100	Flora EOs	Number of Eos	GESNERIA PAUCIFLORA	2
6	6	100	100	Flora EOs	Number of Eos	GOETZEA ELEGANS	6
3	3	100	100	Flora EOs	Number of Eos	GYMNOPOGON FOLIOSUS	3
4	4	100	100	Flora EOs	Number of Eos	HARRISIA PORTORICENSIS	4
2	2	100	100	Flora EOs	Number of Eos	HENRIETTEA MEMBRANIFOLIA	2
4	4	100	100	Flora EOs	Number of Eos	ILEX COOKII	4
2	2	100	100	Flora EOs	Number of Eos	ILEX SINTENISII	2
4	4	100	100	Flora EOs	Number of Eos	ILEX URBANIANA	4
2	2	100	100	Flora EOs	Number of Eos	IPOMOEA CARNEA SSP FISTULOSA	2
1	1	100	100	Flora EOs	Number of Eos	JUGLANS JAMAICENSIS	1
1	1	100	100	Flora EOs	Number of	JUSTICIA CULEBRITAE	1

1	1	100	100	Flora EOs	Number of Eos	LAGENOCARPUS GUIANENSIS	1
1	1	100	100	Flora EOs	Number of Eos	LANTANA RETICULATA	1
1	1	100	100	Flora EOs	Number of Eos	LANTANA TRIFOLIA	1
5	5	100	100	Flora EOs	Number of Eos	LEPANTHES DODIANA	5
2	2	100	100	Flora EOs	Number of Eos	LEPANTHES ELTOROENSIS	2
1	1	100	100	Flora EOs	Number of Eos	LEPTOCEREUS GRANTIANUS	1
11	11	100	100	Flora EOs	Number of Eos	LEPTOCEREUS QUADRICOSTATUS	11
4	4	100	100	Flora EOs	Number of Eos	LINDSAEA PORTORICENSIS	4
1	1	100	100	Flora EOs	Number of Eos	LIPARIS VEXILLIFERA	1
1	1	100	100	Flora EOs	Number of Eos	LYCASTE BARRINGTONIAE	1
1	1	100	100	Flora EOs	Number of Eos	LYCOPODIUM VERTICILLATUM	1
5	5	100	100	Flora EOs	Number of Eos	MAGNOLIA SPLENDENS	5
4	4	100	100	Flora EOs	Number of Eos	MARATTIA LAEVIS	4
2	2	100	100	Flora EOs	Number of Eos	MAYTENUS CYMOSA	2
6	6	100	100	Flora EOs	Number of Eos	MAYTENUS ELONGATA	6
4	4	100	100	Flora EOs	Number of Eos	MAYTENUS PONCEANA	4
3	3	100	100	Flora EOs	Number of Eos	MICONIA FOVEOLATA	3
4	4	100	100	Flora EOs	Number of Eos	MICONIA PYCNONEURA	4

3	3	100	100	Flora EOs	Number of Eos	MIKANIA STEVENSIANA	3
1	1	100	100	Flora EOs	Number of Eos	MITRACARPUS MAXWELLIAE	1
2	2	100	100	Flora EOs	Number of Eos	MITRACARPUS POLYCLADUS	2
3	3	100	100	Flora EOs	Number of Eos	MYRCIA PAGANII	3
2	2	100	100	Flora EOs	Number of Eos	MYRCIARIA BORINQUENA	2
4	4	100	100	Flora EOs	Number of Eos	MYRCIARIA MYRTIFOLIA	4
6	6	100	100	Flora EOs	Number of Eos	MYRICA HOLDRIDGEANA	6
3	3	100	100	Flora EOs	Number of Eos	OCOTEA FOENICULACEA	3
2	2	100	100	Flora EOs	Number of Eos	OSMUNDA CINNAMOMEA	2
2	2	100	100	Flora EOs	Number of Eos	OSSAEA KRUGIANA	2
2	2	100	100	Flora EOs	Number of Eos	OSSAEA SCABROSA	2
16	16	100	100	Flora EOs	Number of Eos	OTTOSCHULZIA RHODOXYLON	16
3	3	100	100	Flora EOs	Number of Eos	OXANDRA LANCEOLATA	3
1	1	100	100	Flora EOs	Number of Eos	PANICUM STEVENSIANUM	1
1	1	100	100	Flora EOs	Number of Eos	PAVONIA PANICULATA	1
1	1	100	100	Flora EOs	Number of Eos	PEPEROMIA MYRTIFOLIA	1
3	3	100	100	Flora EOs	Number of Eos	PEPEROMIA WHEELERI	3
3	3	100	100	Flora EOs	Number of Eos	PERSEA KRUGII	3
1	1	100	100	Flora EOs	Number of	PILEA LEPTOPHYLLA	1

					Eos		
2	2	100	100	Flora EOs	Number of Eos	PIRIQUETA VISCOSA	2
1	1	100	100	Flora EOs	Number of Eos	PISONIA HELLERI	1
4	4	100	100	Flora EOs	Number of Eos	PLEODENDRON MACRANTHUM	4
19	19	100	100	Flora EOs	Number of Eos	POLYGALA COWELLII	19
2	2	100	100	Flora EOs	Number of Eos	POLYPODIUM SECTIFRONS	2
6	6	100	100	Flora EOs	Number of Eos	PORTULACA CAULERPOIDES	6
2	2	100	100	Flora EOs	Number of Eos	PROCKIA CRUCIS	2
1	1	100	100	Flora EOs	Number of Eos	PSEUDOPHOENIX SARGENTII VAR SAONAE	1
1	1	100	100	Flora EOs	Number of Eos	PSIDIUM INSULANUM	1
2	2	100	100	Flora EOs	Number of Eos	PSIDIUM SINTENISII	2
3	3	100	100	Flora EOs	Number of Eos	PSYCHILIS KRUGII	3
2	2	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA NITENS	2
2	2	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA	2
3	3	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA VAR BREVISET	3
1	1	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA RARIFLORA	1
1	1	100	100	Flora EOs	Number of Eos	ROCHEFORTIA SPINOSA	1
4	4	100	100	Flora EOs	Number of Eos	ROLLINIA MUCOSA	4

4	4	100	100	Flora EOs	Number of Eos	SABAL CAUSIARUM	4
3	3	100	100	Flora EOs	Number of Eos	SABICEA CINEREA	3
6	6	100	100	Flora EOs	Number of Eos	SCHOEPFIA ARENARIA	6
2	2	100	100	Flora EOs	Number of Eos	SCHOEPFIA CHRYSOPHYLLOIDES	2
2	2	100	100	Flora EOs	Number of Eos	SCHOEPFIA SCHREBERI	2
5	5	100	100	Flora EOs	Number of Eos	SCLERIA DORADOENSIS	5
3	3	100	100	Flora EOs	Number of Eos	SCLERIA GEORGIANA	3
1	1	100	100	Flora EOs	Number of Eos	SCLERIA PAUCIFLORA	1
3	3	100	100	Flora EOs	Number of Eos	SCLERIA VERTICILLATA	3
2	2	100	100	Flora EOs	Number of Eos	SCOLOSANTHUS GRANDIFOLIUS	2
1	1	100	100	Flora EOs	Number of Eos	SESUVIUM MARITIMUM	1
1	1	100	100	Flora EOs	Number of Eos	SETARIA CHAPMANII	1
2	2	100	100	Flora EOs	Number of Eos	SETARIA MAGNA	2
1	1	100	100	Flora EOs	Number of Eos	SOLANUM CAMPECHIENSE	1
1	1	100	100	Flora EOs	Number of Eos	SOLANUM DRYMOPHILUM	1
1	1	100	100	Flora EOs	Number of Eos	SOLANUM POLYGAMUM	1
4	4	100	100	Flora EOs	Number of Eos	SOLANUM WOODBURYI	4
2	2	100	100	Flora EOs	Number of Eos	SOPHORA TOMENTOSA	2
9	9	100	100	Flora EOs	Number of	STAHLIA	9

					Eos	MONOSPERMA	
2	2	100	100	Flora EOs	Number of Eos	STYRAX PORTORICENSIS	2
2	2	100	100	Flora EOs	Number of Eos	SYMPLOCOS LANATA	2
5	5	100	100	Flora EOs	Number of Eos	TERNSTROEMIA HEPTASEPALA	5
3	3	100	100	Flora EOs	Number of Eos	TERNSTROEMIA LUQUILLENSIS	3
1	1	100	100	Flora EOs	Number of Eos	TERNSTROEMIA SUBSESSILIS	1
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA FLEXUOSA	3
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA LINEATISPICA	3
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA PRUINOSA	3
8	8	100	100	Flora EOs	Number of Eos	TILLANDSIA TENUIFOLIA VAR TENUIFOLI	8
7	7	100	100	Flora EOs	Number of Eos	TRICHILIA TRIACANTHA	7
3	3	100	100	Flora EOs	Number of Eos	URERA CHLOROCARPA	3
1	1	100	100	Flora EOs	Number of Eos	VERNONIA PROCTORII	1
3	3	100	100	Flora EOs	Number of Eos	WALTHERIA CALCICOLA	3
3	3	100	100	Flora EOs	Number of Eos	XYLOSMA PACHYPHYLLUM	3
3	3	100	100	Flora EOs	Number of Eos	XYLOSMA SCHWANECKEANUM	3
1	1	100	100	Flora EOs	Number of Eos	ZANTHOXYLUM BIFOLIOLATUM	1
5	5	100	100	Flora EOs	Number of Eos	ZANTHOXYLUM THOMASIANUM	5
3	3	100	100	Flora EOs	Number of	ZIZIPHUS TAYLORII	3

3	3	100	100	Fauna Eos	Number of Eos	AMAZONA VITTATA	3
3	3	100	100	Fauna Eos	Number of Eos	AMPHISBAENA BAKERI	3
5	5	100	100	Fauna Eos	Number of Eos	ANAS BAHAMENSIS	5
12	12	100	100	Fauna Eos	Number of Eos	ANOLIS COOKI	12
1	1	100	100	Fauna Eos	Number of Eos	ANOLIS CUVIERI	1
9	9	100	100	Fauna Eos	Number of Eos	ANOLIS OCCULTUS	9
2	2	100	100	Fauna Eos	Number of Eos	ANOLIS PONCENSIS	2
1	1	100	100	Fauna Eos	Number of Eos	ANOLIS ROOSEVELTI	1
1	1	100	100	Fauna Eos	Number of Eos	ANTHRACOTHORAX VIRIDIS	1
15	15	100	100	Fauna Eos	Number of Eos	BUTEO PLATYPTERUS BRUNNESCENS	15
5	5	100	100	Fauna Eos	Number of Eos	CARETTA CARETTA	5
2	2	100	100	Fauna Eos	Number of Eos	CHARADRIUS ALEXANDRINUS TENUIROSTRI	2
20	20	74.07407	100	Fauna Eos	Number of Eos	CHELONIA MYDAS	27
10	10	100	100	Fauna Eos	Number of Eos	COLUMBA LEUCOCEPHALA	10
9	9	100	100	Fauna Eos	Number of Eos	CYCLURA CORNUTA	9
14	14	100	100	Fauna Eos	Number of Eos	DENDROCYGNA ARBOREA	14
1	1	100	100	Fauna Eos	Number of Eos	DENDROICA ANGELAE	1
5	5	100	100	Fauna Eos	Number of	ELEUTHERODACTYLU	5

					Eos	S COOKI	
11	11	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS ENEIDAE	11
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS GRYLLUS	1
4	4	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS HEDRICKI	4
14	14	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS JASPERI	14
8	8	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS KARLSCHMIDTI	8
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS LOCUSTUS	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS PORTORICENSIS	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS RICHMONDI	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS UNICOLOR	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS WIGHTMANAE	1
13	13	100	100	Fauna Eos	Number of Eos	FULICA CARIBAEA	13
2	2	100	100	Fauna Eos	Number of Eos	LOXIGILLA PORTORICENSIS	2
8	8	100	100	Fauna Eos	Number of Eos	MABUYA SLOANEI	8
3	3	100	100	Fauna Eos	Number of Eos	MELANERPES PORTORICENSIS	3
2	2	100	100	Fauna Eos	Number of Eos	MONOPHYLLUS REDMANI PORTORICENSIS	2
3	3	100	100	Fauna Eos	Number of Eos	MORMOOPS BLAINVILLII	3
3	3	100	100	Fauna Eos	Number of Eos	MYIARCHUS CINNAMOMEUM ANTILLARUM	3

1	1	100	100	Fauna Eos	Number of Eos	NESOSPINGUS SPECULIFERUS	1
6	6	100	100	Fauna Eos	Number of Eos	OXYURA DOMINICA	6
6	6	100	100	Fauna Eos	Number of Eos	PELTOPHRYNE LEMUR	6
5	5	100	100	Fauna Eos	Number of Eos	PORZANA FLAVIVENTER	5
4	4	100	100	Fauna Eos	Number of Eos	PTERONOTUS PARNELLII PORTORICENSIS	4
2	2	100	100	Fauna Eos	Number of Eos	SPHAERODACTYLUS MICROPITHECUS	2
11	11	100	100	Fauna Eos	Number of Eos	TACHYBAPTUS DOMINICUS	11
10396.066	10396.066	100	100	Marine	Hectares	SPAGS	10396.06
499.86	499.95	100	99.9819982	Ecological Systems	Hectares	Caribbean salt flats and ponds	499.95
3345.66	3365.73	100	99.40369548	Ecological Systems	Hectares	Caribbean lowland moist serpentine woodland	3365.73
35705.43	35997.6	97.40361	99.18836256	Ecological Systems	Hectares	Caribbean seasonal evergreen lowland forest	36957.15
4918.14	4972.86	100	98.89962718	Ecological Systems	Hectares	Caribbean maritime shore/estuary mouth mangrove	4972.86
49	50	100	98	Fauna Eos	Number of Eos	DERMOCHELYS CORIACEA	50
967.5	989.1	100	97.81619654	Ecological Systems	Hectares	Caribbean floodplain forest	989.1
3027.33	3097.62	100	97.73083851	Ecological Systems	Hectares	Caribbean emergent herbaceous estuary	3097.62
24	25	100	96	Fauna Eos	Number of Eos	OXYURA JAMAICENSIS	25
2065.23	2164.05	100	95.43356207	Ecological Systems	Hectares	Caribbean estuarine mangrove forest	2164.05
33	35	100	94.28571429	Fauna Eos	Number of Eos	TRICHECHUS MANATUS MANATUS	35

16	17	100	94.11764706	Fauna Eos	Number of Eos	STERNA ANTILLARUM	17
2834.37	3074.76	100	92.18182883	Ecological Systems	Hectares	Caribbean freshwater marsh	3074.76
7	8	100	87.5	Flora EOs	Number of Eos	CHAMAECRISTA GLANDULOSA VAR MIRABIL	8
13	15	100	86.66666667	Fauna Eos	Number of Eos	AGELAIUS XANTHOMUS	15
4	5	100	80	Flora EOs	Number of Eos	ZIZIPHUS RIGNONII	5
3	4	100	75	Flora EOs	Number of Eos	BUXUS VAHLII	4
18.776	13.5228	30	138.8469844	Freshwater	Hectares	Karst Freshwater Pools	45.076
166364.199	100241.0808	30	165.9640914	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 2	334136.9
944481.506	541665.874	30.00000	174.3660717	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 4	1805552.9
83956.445	44394.573	30	189.1142077	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 4	147981.9
95279.829	49985.334	30	190.6155694	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 3	166617.7
51909.852	25588.5315	30	202.86374	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 1	85295.10
1354184.579	666832.288	29.99999	203.077236	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 3	2222774.2
37107.247	18207.6153	30	203.8006976	Freshwater	Meters Length	Coastal Acq EDU 5	60692.05
48924.272	23115.23	29.99999	211.6538403	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 5	77050.76
587772.669	262735.126	29.99999	223.7130139	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 2	875783.7
55164.785	24658.3734	30	223.7162367	Freshwater	Meters Length	Coastal Acq EDU 4	82194.57
810821.652	356650.419	30	227.3435299	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 4	1188834.7

878279.604	381869.637	30	229.9946157	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 1	1272898.7
1662.141	680.6094	30	244.2136415	Freshwater	Meters Length	Coastal Acq EDU 2	2268.698
3838.438	1562.4939	30	245.6609911	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 4	5208.313
1213579.963	481455.3522	30	252.0649023	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 3	1604851.1
13399.726	5178.2526	30	258.7692613	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 3	17260.84
20776.6	7816.9347	30	265.7896068	Freshwater	Meters Length	Coastal Acq EDU 1	26056.44
698855.453	254883.5715	30	274.1861505	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 2	849611.9
624758.814	226397.1507	30	275.9570127	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 1	754657.1
4344.63	1539.1089	30	282.2821699	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 2	5130.363
624655.2791	210613.8761	30	296.5879032	Freshwater	Meters Length	Karst Freshwater Streams	702046.2
10664.554	3280.4712	30	325.0921392	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 1	10934.90
15496.183	4743.0543	30	326.7131688	Freshwater	Meters Length	Coastal Acq EDU 3	15810.18
84.137	25.2411	30	333.3333333	Freshwater	Hectares	Freshwater Lakes	84.137

Appendix 7 (Scenario 3 Results)

Amount in Solution	GOAL Amount	Goal Percent	Percent Met	TargetType	Units	Name	Total Amount Available
3	4	100	75	Flora EOs	Number of	BUXUS VAHLII	4

4	5	100	80	Flora EOs	Number of Eos	ZIZIPHUS RIGNONII	5
13	15	100	86.66666	Fauna Eos	Number of Eos	AGELAIUS XANTHOMUS	15
16	17	100	94.11764	Fauna Eos	Number of Eos	STERNA ANTILLARUM	17
33	35	100	94.28571	Fauna Eos	Number of Eos	TRICHECHUS MANATUS MANATUS	35
24	25	100	96	Fauna Eos	Number of Eos	OXYURA JAMAICENSIS	25
49	50	100	98	Fauna Eos	Number of Eos	DERMOCHELYS CORIACEA	50
30.6	31	101.3071	98.70967	Ecological Systems	Hectares	Caribbean serpentine dry scrub	30.6
2	2	100	100	Flora EOs	Number of Eos	ABUTILON COMMUTATUM	2
4	4	100	100	Flora EOs	Number of Eos	ADIANTUM VILLOSUM	4
2	2	100	100	Flora EOs	Number of Eos	ADIANTUM WILSONII	2
3	3	100	100	Flora EOs	Number of Eos	AECHMEA LINGULATA	3
1	1	100	100	Flora EOs	Number of Eos	AECHMEA NUDICAULIS	1
5	5	100	100	Flora EOs	Number of Eos	ALSOPHILA AMINTAE	5
5	5	100	100	Flora EOs	Number of Eos	ALSOPHILA BROOKSII	5
2	2	100	100	Flora EOs	Number of Eos	AMARANTHUS AUSTRALIS	2
1	1	100	100	Flora EOs	Number of Eos	AMBROSIA TENUIFOLIA	1
2	2	100	100	Flora EOs	Number of Eos	ANEMIA HIRSUTA	2
4	4	100	100	Flora EOs	Number of Eos	ANISEIA MARTINICENSIS	4

3	3	100	100	Flora EOs	Number of Eos	ANTIRHEA PORTORICENSIS	3
3	3	100	100	Flora EOs	Number of Eos	ANTIRHEA SINTENISII	3
3	3	100	100	Flora EOs	Number of Eos	ARDISIA LUQUILLENSIS	3
4	4	100	100	Flora EOs	Number of Eos	ARISTIDA CHASEAE	4
5	5	100	100	Flora EOs	Number of Eos	ARISTIDA PORTORICENSIS	5
1	1	100	100	Flora EOs	Number of Eos	AUERODENDRON PAUCIFLORUM	1
3	3	100	100	Flora EOs	Number of Eos	BACCHARIS DIOICA	3
3	3	100	100	Flora EOs	Number of Eos	BANARA VANDERBILTII	3
2	2	100	100	Flora EOs	Number of Eos	BASIPHYLLAEA ANGUSTIFOLIA	2
2	2	100	100	Flora EOs	Number of Eos	BRACHIONIDIUM CILIOLATUM	2
1	1	100	100	Flora EOs	Number of Eos	BRACHIONIDIUM PARVUM	1
4	4	100	100	Flora EOs	Number of Eos	BRUNFELSIA LACTEA	4
5	5	100	100	Flora EOs	Number of Eos	BRUNFELSIA PORTORICENSIS	5
2	2	100	100	Flora EOs	Number of Eos	BRUNSFELSIA DENSIFOLIA	2
1	1	100	100	Flora EOs	Number of Eos	BUCHNERA LONGIFOLIA	1
4	4	100	100	Flora EOs	Number of Eos	BULBOSTYLIS CURASSAVICA	4
1	1	100	100	Flora EOs	Number of Eos	BULBOSTYLIS JUNCIFORMIS	1
2	2	100	100	Flora EOs	Number of Eos	BURMANNIA CAPITATA	2
2	2	100	100	Flora EOs	Number of	BYRSONIMA SPICATA	2

3	3	100	100	Flora EOs	Number of Eos	CAESALPINIA CULEBRAE	3
1	1	100	100	Flora EOs	Number of Eos	CAESALPINIA MONENSIS	1
2	2	100	100	Flora EOs	Number of Eos	CAESALPINIA PORTORICENSIS	2
3	3	100	100	Flora EOs	Number of Eos	CALLICARPA AMPLA	3
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES DUMETORUM	2
5	5	100	100	Flora EOs	Number of Eos	CALYPTRANTHES LUQUILLENSIS	5
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES PEDUNCULARIS	2
2	2	100	100	Flora EOs	Number of Eos	CALYPTRANTHES PORTORICENSIS	2
1	1	100	100	Flora EOs	Number of Eos	CALYPTRANTHES THOMASIANA	1
3	3	100	100	Flora EOs	Number of Eos	CALYPTRANTHES TRIFLORA	3
5	5	100	100	Flora EOs	Number of Eos	CALYPTRANTHES WOODBURYI	5
1	1	100	100	Flora EOs	Number of Eos	CALYPTRANTHES ZUZYGIUM	1
9	9	100	100	Flora EOs	Number of Eos	CALYPTRONOMA RIVALIS	9
3	3	100	100	Flora EOs	Number of Eos	CAMPYLOCENTRUM PACHYRRHIZUM	3
8	8	100	100	Flora EOs	Number of Eos	CHAMAECRISTA GLANDULOSA VAR MIRABIL	8
2	2	100	100	Flora EOs	Number of Eos	CHAMAESYCE MONENSIS	2
2	2	100	100	Flora EOs	Number of Eos	CHAMAESYCE ORBIFOLIA	2
5	5	100	100	Flora EOs	Number of	CLIDEMIA	5

					Eos	PORTORICENSIS	
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA PALLIDA	1
14	14	100	100	Flora EOs	Number of Eos	COCCOLOBA RUGOSA	14
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA SINTENISII VAR. ALBA	1
1	1	100	100	Flora EOs	Number of Eos	COCCOLOBA TENUIFOLIA	1
5	5	100	100	Flora EOs	Number of Eos	CONOSTEGIA HOTTEANA	5
1	1	100	100	Flora EOs	Number of Eos	CORDIA BAHAMENSIS	1
5	5	100	100	Flora EOs	Number of Eos	CORDIA RUPICOLA	5
1	1	100	100	Flora EOs	Number of Eos	CORDIA WAGNERIORUM	1
5	5	100	100	Flora EOs	Number of Eos	CORNUTIA OBOVATA	5
9	9	100	100	Flora EOs	Number of Eos	CRESCENTIA PORTORICENSIS	9
1	1	100	100	Flora EOs	Number of Eos	CROTON NUMMULARIIFOLIUS	1
2	2	100	100	Flora EOs	Number of Eos	CYBIANTHUS SINTENISII	2
3	3	100	100	Flora EOs	Number of Eos	CYNANCHUM MONENSE	3
1	1	100	100	Flora EOs	Number of Eos	CYPERUS FULIGINEUS	1
3	3	100	100	Flora EOs	Number of Eos	CYPERUS URBANII	3
4	4	100	100	Flora EOs	Number of Eos	CYRTOPODIUM PUNCTATUM	4
1	1	100	100	Flora EOs	Number of Eos	DALEA CARTHAGENENSIS VAR PORTORICAN	1
13	13	100	100	Flora EOs	Number of	DAPHNOPSIS	13

					Eos	HELLERIANA	
6	6	100	100	Flora EOs	Number of Eos	DENDROPEMON PURPUREUS	6
3	3	100	100	Flora EOs	Number of Eos	DICHANTHELIUM ACICULARE	3
1	1	100	100	Flora EOs	Number of Eos	DICLIPTERA KRUGII	1
4	4	100	100	Flora EOs	Number of Eos	DIDYMOPANAX GLEASONI	4
1	1	100	100	Flora EOs	Number of Eos	DIGITARIA ARGILLACEA	1
5	5	100	100	Flora EOs	Number of Eos	DIOSPYROS SINTENISII	5
5	5	100	100	Flora EOs	Number of Eos	DROSERA CAPILLARIS	5
3	3	100	100	Flora EOs	Number of Eos	ECHINODORUS TENELLUS VAR LATIFOLIUS	3
2	2	100	100	Flora EOs	Number of Eos	ELEOCHARIS PACHYSTYLA	2
2	2	100	100	Flora EOs	Number of Eos	ELEOCHARIS ROSTELLATA	2
1	1	100	100	Flora EOs	Number of Eos	ENCYCLIA COCHLEATA VAR ALBA	1
1	1	100	100	Flora EOs	Number of Eos	ENTADA POLYPHYLLA	1
1	1	100	100	Flora EOs	Number of Eos	ERIOSEMA CRINITUM	1
4	4	100	100	Flora EOs	Number of Eos	ERYTHRINA EGGERSII	4
1	1	100	100	Flora EOs	Number of Eos	EUBRACHION AMBIGUUM	1
2	2	100	100	Flora EOs	Number of Eos	EUGENIA BELLONIS	2
4	4	100	100	Flora EOs	Number of Eos	EUGENIA EGGERSII	4

5	5	100	100	Flora EOs	Number of Eos	EUGENIA HAEMATOCARPA	5
4	4	100	100	Flora EOs	Number of Eos	EUGENIA SESSILIFLORA	4
2	2	100	100	Flora EOs	Number of Eos	EUGENIA STEWARDSONII	2
10	10	100	100	Flora EOs	Number of Eos	EUGENIA WOODBURYANA	10
2	2	100	100	Flora EOs	Number of Eos	EUPATORIUM OTEROI	2
3	3	100	100	Flora EOs	Number of Eos	EUPHORBIA OERSTEDIANA	3
1	1	100	100	Flora EOs	Number of Eos	EURYSTYLES ANANASSOCOMOS	1
5	5	100	100	Flora EOs	Number of Eos	GAUSSIA ATTENUATA	5
2	2	100	100	Flora EOs	Number of Eos	GESNERIA PAUCIFLORA	2
6	6	100	100	Flora EOs	Number of Eos	GOETZEA ELEGANS	6
3	3	100	100	Flora EOs	Number of Eos	GYMNOPOGON FOLIOSUS	3
4	4	100	100	Flora EOs	Number of Eos	HARRISIA PORTORICENSIS	4
2	2	100	100	Flora EOs	Number of Eos	HENRIETTEA MEMBRANIFOLIA	2
4	4	100	100	Flora EOs	Number of Eos	ILEX COOKII	4
2	2	100	100	Flora EOs	Number of Eos	ILEX SINTENISII	2
4	4	100	100	Flora EOs	Number of Eos	ILEX URBANIANA	4
2	2	100	100	Flora EOs	Number of Eos	IPOMOEA CARNEA SSP FISTULOSA	2
1	1	100	100	Flora EOs	Number of Eos	JUGLANS JAMAICENSIS	1
1	1	100	100	Flora EOs	Number of	JUSTICIA CULEBRITAE	1

1	1	100	100	Flora EOs	Number of Eos	LAGENOCARPUS GUIANENSIS	1
1	1	100	100	Flora EOs	Number of Eos	LANTANA RETICULATA	1
1	1	100	100	Flora EOs	Number of Eos	LANTANA TRIFOLIA	1
5	5	100	100	Flora EOs	Number of Eos	LEPANTHES DODIANA	5
2	2	100	100	Flora EOs	Number of Eos	LEPANTHES ELTOROENSIS	2
1	1	100	100	Flora EOs	Number of Eos	LEPTOCEREUS GRANTIANUS	1
11	11	100	100	Flora EOs	Number of Eos	LEPTOCEREUS QUADRICOSTATUS	11
4	4	100	100	Flora EOs	Number of Eos	LINDSAEA PORTORICENSIS	4
1	1	100	100	Flora EOs	Number of Eos	LIPARIS VEXILLIFERA	1
1	1	100	100	Flora EOs	Number of Eos	LYCASTE BARRINGTONIAE	1
1	1	100	100	Flora EOs	Number of Eos	LYCOPODIUM VERTICILLATUM	1
5	5	100	100	Flora EOs	Number of Eos	MAGNOLIA SPLENDENS	5
4	4	100	100	Flora EOs	Number of Eos	MARATTIA LAEVIS	4
2	2	100	100	Flora EOs	Number of Eos	MAYTENUS CYMOSA	2
6	6	100	100	Flora EOs	Number of Eos	MAYTENUS ELONGATA	6
4	4	100	100	Flora EOs	Number of Eos	MAYTENUS PONCEANA	4
3	3	100	100	Flora EOs	Number of Eos	MICONIA FOVEOLATA	3
4	4	100	100	Flora EOs	Number of Eos	MICONIA PYCNONEURA	4

3	3	100	100	Flora EOs	Number of Eos	MIKANIA STEVENSIANA	3
1	1	100	100	Flora EOs	Number of Eos	MITRACARPUS MAXWELLIAE	1
2	2	100	100	Flora EOs	Number of Eos	MITRACARPUS POLYCLADUS	2
3	3	100	100	Flora EOs	Number of Eos	MYRCIA PAGANII	3
2	2	100	100	Flora EOs	Number of Eos	MYRCIARIA BORINQUENA	2
4	4	100	100	Flora EOs	Number of Eos	MYRCIARIA MYRTIFOLIA	4
6	6	100	100	Flora EOs	Number of Eos	MYRICA HOLDRIDGEANA	6
3	3	100	100	Flora EOs	Number of Eos	OCOTEA FOENICULACEA	3
2	2	100	100	Flora EOs	Number of Eos	OSMUNDA CINNAMOMEA	2
2	2	100	100	Flora EOs	Number of Eos	OSSAEA KRUGIANA	2
2	2	100	100	Flora EOs	Number of Eos	OSSAEA SCABROSA	2
16	16	100	100	Flora EOs	Number of Eos	OTTOSCHULZIA RHODOXYLON	16
3	3	100	100	Flora EOs	Number of Eos	OXANDRA LANCEOLATA	3
1	1	100	100	Flora EOs	Number of Eos	PANICUM STEVENSIANUM	1
1	1	100	100	Flora EOs	Number of Eos	PAVONIA PANICULATA	1
1	1	100	100	Flora EOs	Number of Eos	PEPEROMIA MYRTIFOLIA	1
3	3	100	100	Flora EOs	Number of Eos	PEPEROMIA WHEELERI	3
3	3	100	100	Flora EOs	Number of Eos	PERSEA KRUGII	3
1	1	100	100	Flora EOs	Number of	PILEA LEPTOPHYLLA	1

					Eos		
2	2	100	100	Flora EOs	Number of Eos	PIRIQUETA VISCOSA	2
1	1	100	100	Flora EOs	Number of Eos	PISONIA HELLERI	1
4	4	100	100	Flora EOs	Number of Eos	PLEODENDRON MACRANTHUM	4
19	19	100	100	Flora EOs	Number of Eos	POLYGALA COWELLII	19
2	2	100	100	Flora EOs	Number of Eos	POLYPODIUM SECTIFRONS	2
6	6	100	100	Flora EOs	Number of Eos	PORTULACA CAULERPOIDES	6
2	2	100	100	Flora EOs	Number of Eos	PROCKIA CRUCIS	2
1	1	100	100	Flora EOs	Number of Eos	PSEUDOPHOENIX SARGENTII VAR SAONAE	1
1	1	100	100	Flora EOs	Number of Eos	PSIDIUM INSULANUM	1
2	2	100	100	Flora EOs	Number of Eos	PSIDIUM SINTENISII	2
3	3	100	100	Flora EOs	Number of Eos	PSYCHILIS KRUGII	3
2	2	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA NITENS	2
2	2	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA	2
3	3	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA OLIGANTHA VAR BREVISET	3
1	1	100	100	Flora EOs	Number of Eos	RHYNCHOSPORA RARIFLORA	1
1	1	100	100	Flora EOs	Number of Eos	ROCHEFORTIA SPINOSA	1
4	4	100	100	Flora EOs	Number of Eos	ROLLINIA MUCOSA	4

4	4	100	100	Flora EOs	Number of Eos	SABAL CAUSIARUM	4
3	3	100	100	Flora EOs	Number of Eos	SABICEA CINEREA	3
6	6	100	100	Flora EOs	Number of Eos	SCHOEPFIA ARENARIA	6
2	2	100	100	Flora EOs	Number of Eos	SCHOEPFIA CHRYSOPHYLLOIDES	2
2	2	100	100	Flora EOs	Number of Eos	SCHOEPFIA SCHREBERI	2
5	5	100	100	Flora EOs	Number of Eos	SCLERIA DORADOENSIS	5
3	3	100	100	Flora EOs	Number of Eos	SCLERIA GEORGIANA	3
1	1	100	100	Flora EOs	Number of Eos	SCLERIA PAUCIFLORA	1
3	3	100	100	Flora EOs	Number of Eos	SCLERIA VERTICILLATA	3
2	2	100	100	Flora EOs	Number of Eos	SCOLOSANTHUS GRANDIFOLIUS	2
1	1	100	100	Flora EOs	Number of Eos	SESUVIUM MARITIMUM	1
1	1	100	100	Flora EOs	Number of Eos	SETARIA CHAPMANII	1
2	2	100	100	Flora EOs	Number of Eos	SETARIA MAGNA	2
1	1	100	100	Flora EOs	Number of Eos	SOLANUM CAMPECHIENSE	1
1	1	100	100	Flora EOs	Number of Eos	SOLANUM DRYMOPHILUM	1
1	1	100	100	Flora EOs	Number of Eos	SOLANUM POLYGAMUM	1
4	4	100	100	Flora EOs	Number of Eos	SOLANUM WOODBURYI	4
2	2	100	100	Flora EOs	Number of Eos	SOPHORA TOMENTOSA	2
9	9	100	100	Flora EOs	Number of	STAHLIA	9

					Eos	MONOSPERMA	
2	2	100	100	Flora EOs	Number of Eos	STYRAX PORTORICENSIS	2
2	2	100	100	Flora EOs	Number of Eos	SYMPLOCOS LANATA	2
5	5	100	100	Flora EOs	Number of Eos	TERNSTROEMIA HEPTASEPALA	5
3	3	100	100	Flora EOs	Number of Eos	TERNSTROEMIA LUQUILLENSIS	3
1	1	100	100	Flora EOs	Number of Eos	TERNSTROEMIA SUBSESSILIS	1
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA FLEXUOSA	3
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA LINEATISPICA	3
3	3	100	100	Flora EOs	Number of Eos	TILLANDSIA PRUINOSA	3
8	8	100	100	Flora EOs	Number of Eos	TILLANDSIA TENUIFOLIA VAR TENUIFOLI	8
7	7	100	100	Flora EOs	Number of Eos	TRICHILIA TRIACANTHA	7
3	3	100	100	Flora EOs	Number of Eos	URERA CHLOROCARPA	3
1	1	100	100	Flora EOs	Number of Eos	VERNONIA PROCTORII	1
3	3	100	100	Flora EOs	Number of Eos	WALTHERIA CALCICOLA	3
3	3	100	100	Flora EOs	Number of Eos	XYLOSMA PACHYPHYLLUM	3
3	3	100	100	Flora EOs	Number of Eos	XYLOSMA SCHWANECKEANUM	3
1	1	100	100	Flora EOs	Number of Eos	ZANTHOXYLUM BIFOLIOLATUM	1
5	5	100	100	Flora EOs	Number of Eos	ZANTHOXYLUM THOMASIANUM	5
3	3	100	100	Flora EOs	Number of	ZIZIPHUS TAYLORII	3

3	3	100	100	Fauna Eos	Number of Eos	AMAZONA VITTATA	3
3	3	100	100	Fauna Eos	Number of Eos	AMPHISBAENA BAKERI	3
5	5	100	100	Fauna Eos	Number of Eos	ANAS BAHAMENSIS	5
12	12	100	100	Fauna Eos	Number of Eos	ANOLIS COOKI	12
1	1	100	100	Fauna Eos	Number of Eos	ANOLIS CUVIERI	1
9	9	100	100	Fauna Eos	Number of Eos	ANOLIS OCCULTUS	9
2	2	100	100	Fauna Eos	Number of Eos	ANOLIS PONCENSIS	2
1	1	100	100	Fauna Eos	Number of Eos	ANOLIS ROOSEVELTI	1
1	1	100	100	Fauna Eos	Number of Eos	ANTHRACOTHORAX VIRIDIS	1
15	15	100	100	Fauna Eos	Number of Eos	BUTEO PLATYPTERUS BRUNNESCENS	15
5	5	100	100	Fauna Eos	Number of Eos	CARETTA CARETTA	5
2	2	100	100	Fauna Eos	Number of Eos	CHARADRIUS ALEXANDRINUS TENUIROSTRI	2
20	20	74.07407	100	Fauna Eos	Number of Eos	CHELONIA MYDAS	27
10	10	100	100	Fauna Eos	Number of Eos	COLUMBA LEUCOCEPHALA	10
9	9	100	100	Fauna Eos	Number of Eos	CYCLURA CORNUTA	9
14	14	100	100	Fauna Eos	Number of Eos	DENDROCYGNA ARBOREA	14
1	1	100	100	Fauna Eos	Number of Eos	DENDROICA ANGELAE	1
5	5	100	100	Fauna Eos	Number of	ELEUTHERODACTYLU	5

					Eos	S COOKI	
11	11	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS ENEIDAE	11
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS GRYLLUS	1
4	4	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS HEDRICKI	4
14	14	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS JASPERI	14
8	8	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS KARLSCHMIDTI	8
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS LOCUSTUS	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS PORTORICENSIS	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS RICHMONDI	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS UNICOLOR	1
1	1	100	100	Fauna Eos	Number of Eos	ELEUTHERODACTYLUS WIGHTMANAE	1
13	13	100	100	Fauna Eos	Number of Eos	FULICA CARIBAEA	13
2	2	100	100	Fauna Eos	Number of Eos	LOXIGILLA PORTORICENSIS	2
8	8	100	100	Fauna Eos	Number of Eos	MABUYA SLOANEI	8
3	3	100	100	Fauna Eos	Number of Eos	MELANERPES PORTORICENSIS	3
2	2	100	100	Fauna Eos	Number of Eos	MONOPHYLLUS REDMANI PORTORICENSIS	2
3	3	100	100	Fauna Eos	Number of Eos	MORMOOPS BLAINVILLII	3
3	3	100	100	Fauna Eos	Number of Eos	MYIARCHUS CINNAMOMEUM ANTILLARUM	3

1	1	100	100	Fauna Eos	Number of Eos	NESOSPINGUS SPECULIFERUS	1
6	6	100	100	Fauna Eos	Number of Eos	OXYURA DOMINICA	6
6	6	100	100	Fauna Eos	Number of Eos	PELTOPHRYNE LEMUR	6
5	5	100	100	Fauna Eos	Number of Eos	PORZANA FLAVIVENTER	5
4	4	100	100	Fauna Eos	Number of Eos	PTERONOTUS PARNELLII PORTORICENSIS	4
2	2	100	100	Fauna Eos	Number of Eos	SPHAERODACTYLUS MICROPITHECUS	2
11	11	100	100	Fauna Eos	Number of Eos	TACHYBAPTUS DOMINICUS	11
10396.066	10396.066	100	100	Marine	Hectares	SPAGS	10396.06
666853.947	666832.288	29.99999	100.0032	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 3	2222774.2
210640.5578	210613.8761	30	100.0126	Freshwater	Meters Length	Karst Freshwater Streams	702046.2
100256.354	100241.0808	30	100.0152	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 2	334136.9
16484.978	16482.105	30	100.0174	Marine	Hectares	Seagrass/Bank Shelf	54940.35
541772.615	541665.874	30.00000	100.0197	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 4	1805552.9
97381.137	97357.47	65.00000	100.0243	Marine	Hectares	Whales Distribution	149780.7
262802.79	262735.126	29.99999	100.0257	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 2	875783.7
356751.811	356650.419	30	100.0284	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 4	1188834.7
1987.845	1986.7269	30	100.0562	Marine	Hectares	Coral Wall Reef	6622.423
426.202	425.901	30	100.0706	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Linear Reef	1419.67
481893.688	481455.3522	30	100.0910	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 3	1604851.1

15174.963	15160.1232	30	100.0978	Marine	Hectares	Bank/Shelf_Colonized Bedrock/Colonized Pavement with Sand and Channels	50533.74
382269.884	381869.637	30	100.1048	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 1	1272898.7
4157.459	4151.6313	30	100.1403	Marine	Hectares	Bank/Shelf_Patch Reef (Individual and Aggregated)/ Scattered Coral/Rock in Unconsolidated Sediment	13838.77
255254.719	254883.5715	30	100.1456	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 2	849611.9
5186.747	5178.2526	30	100.1640	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 3	17260.84
226861.144	226397.1507	30	100.2049	Freshwater	Meters Length	Streams 4 - 6 No Karst on EDU 1	754657.1
1566.985	1562.4939	30	100.2874	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 4	5208.313
5304.9166	5286.6	86.46830	100.3464	Marine	Average Sea Turtle Dermo	Sea Turtle Dermochelys Nest	6113.916
44766.755	44394.573	30	100.8383	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 4	147981.9
28496029	28249424.4	60	100.8729	Marine	Average Manatee Value	Manatee	47082374
334.437	330.7575	30	101.1124	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Colonized Bedrock/Colonized Pavement with Sand and Channels	1102.525
863.716	854.0472	30	101.1321	Marine	Hectares	Lagoon/Reef Crest/Shoreline Intertidal_Colonized	2846.824

						Bedrock and Pavement/Colonised Pavements with Sand and Channels	
28397	27946.8	59.98840	101.6109	Marine	Average Pelican Value	Pelican	46587
26260.948	25588.5315	30	102.6278	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 1	85295.10
387714.447	377267.44	64.99999	102.7691	Marine	Meters Length	Mangrove Interface	580411.4
13.924	13.5228	30	102.9668	Freshwater	Hectares	Karst Freshwater Pools	45.076
579.84	561.7662	30	103.2173	Marine	Hectares	Seagrass/Backreef	1872.554
3391.392	3280.4712	30	103.3812	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 1	10934.90
1470.78	1422	46.24751	103.4303	Ecological Systems	Hectares	Caribbean freshwater marsh	3074.76
625.258	601.8531	30	103.8888	Marine	Hectares	Bank/Shelf Escarpment/Forereef_Linear reef/Spur and Groove Reef	2006.177
1614.555	1539.1089	30	104.9019	Freshwater	Meters Length	Streams 7 - 8 No Karst on EDU 2	5130.363
21	20	71.42857	105	Fauna Eos	Number of Eos	COLUMBA INORNATA WETMOREI	28
8223.21	7816.9347	30	105.1973	Freshwater	Meters Length	Coastal Acq EDU 1	26056.44
31.968	30.1149	30	106.1534	Marine	Hectares	Backreef Linear Reef	100.383
26497.327	24658.3734	30	107.4577	Freshwater	Meters Length	Coastal Acq EDU 4	82194.57
511.29	470	47.51794	108.7851	Ecological Systems	Hectares	Caribbean floodplain forest	989.1
23	20	74.07407	115	Fauna Eos	Number of Eos	EPICRATES INORNATUS	27
24.252	21.06	30	115.1566	Marine	Hectares	Backreef_Patch Reef (Individual and Aggregated)/Scattered	70.2

						Coral/Rock in Unconsolidated Sediment	
1761.84	1520	49.06993	115.9105	Ecological Systems	Hectares	Caribbean emergent herbaceous estuary	3097.62
12.771	10.9458	30	116.6748	Marine	Hectares	Forereef/Bank/Shelf Escarpment_Patch Reef (Individual) Scattered Coral/Rock in Unconsolidated Sediment	36.486
24	20	37.73584	120	Fauna Eos	Number of Eos	CAPRIMULGUS NOCTITHERUS	53
1257.66	1019	47.08763	123.4210	Ecological Systems	Hectares	Caribbean estuarine mangrove forest	2164.05
1310.251	1046.535	30	125.1989	Marine	Hectares	Bank/Shelf_Linear Reef/Spur and Groove Reef	3488.45
15054.3	11999.2	32.46787	125.4608	Ecological Systems	Hectares	Caribbean seasonal evergreen lowland forest	36957.15
306	239.4	77.22580	127.8195	Marine	Average Sea Turtle Chelonia	Sea Turtle Chelonia Nest	310
10175.76	7633.9	17.64658	133.2970	Ecological Systems	Hectares	Caribbean edapho-xerophilous "mogote" complex	43259.94
29	20	60.60606	145	Fauna Eos	Number of Eos	ACCIPITER STRIATUS VENATOR	33
2451.546	1657.4289	30	147.9125	Marine	Hectares	Seagrass/Lagoon	5524.763
38066.76	25430.8	24.01711	149.6876	Ecological Systems	Hectares	Caribbean seasonal evergreen submontane/lowland fo	105886.1
1705.23	1121.91	33.33333	151.9934	Ecological Systems	Hectares	Caribbean lowland moist serpentine woodland	3365.73
1148.13	746.1	31.78924	153.8841	Ecological Systems	Hectares	Caribbean coastal sandy beach	2347.02
4873.5	3102.2	28.4589	157.0981	Ecological	Hectares	Caribbean riparian forest	10900.62

		3		Systems		and woodland	
3643.02	2237	44.98417	162.8529	Ecological Systems	Hectares	Caribbean maritime shore/estuary mouth mangrove	4972.86
13390	8206.8	60	163.1573	Marine	Average Sea Turtle Eretmochelys Nest	Sea Turtle Eretmochelys Nest	13678
1018.17	616.1	10.51140	165.2605	Ecological Systems	Hectares	Caribbean montane/submontane karst forest	5861.25
361.53	216	43.20432	167.375	Ecological Systems	Hectares	Caribbean salt flats and ponds	499.95
20058.21	11750.4	24.78515	170.7023	Ecological Systems	Hectares	Caribbean wet submontane/lowland forest	47409.03
492.66	278.3	27.63380	177.0247	Ecological Systems	Hectares	Caribbean coastal thorn scrub	1007.1
47.853	26.9109	30	177.8201	Marine	Hectares	Backreef_Colonized Bedrock/Colonized Pavement with Sand and Channels	89.703
93846.396	49985.334	30	187.7478	Freshwater	Meters Length	Streams 1 - 3 Over 600 meters on EDU 3	166617.7
40	20	29.85074	200	Fauna Eos	Number of Eos	ERETMOCHELYS IMBRICATA	67
9489.644	4743.0543	30	200.0745	Freshwater	Meters Length	Coastal Acq EDU 3	15810.18
38343.892	18207.6153	30	210.5926	Freshwater	Meters Length	Coastal Acq EDU 5	60692.05
48944.63	23115.23	29.99999	211.7419	Freshwater	Meters Length	Streams 1 - 3 Under 600 meters on EDU 5	77050.76
27267.03	12471.8	22.66725	218.6294	Ecological Systems	Hectares	Caribbean lowland dry semi-deciduous forest	55021.23
1656.996	680.6094	30	243.4577	Freshwater	Meters Length	Coastal Acq EDU 2	2268.698
12006.63	4277.8	20.1853	280.6730	Ecological	Hectares	Caribbean wet montane	21192.57

		7		Systems		forest	
84.137	25.2411	30	333.3333	Freshwater	Hectares	Freshwater Lakes	84.137
2765.16	540.3	14.38889	511.7823	Ecological Systems	Hectares	Caribbean montane wet elfin forest	3754.98
4260.96	556.5	11.46590	765.6711	Ecological Systems	Hectares	Caribbean montane wet serpentine woodland	4853.52
270.09	28	7.451763	964.6071	Ecological Systems	Hectares	Caribbean montane wet short shrubland	375.75
518.49	44.5	5.596428	1165.146	Ecological Systems	Hectares	Caribbean coastal rocky shore	795.15