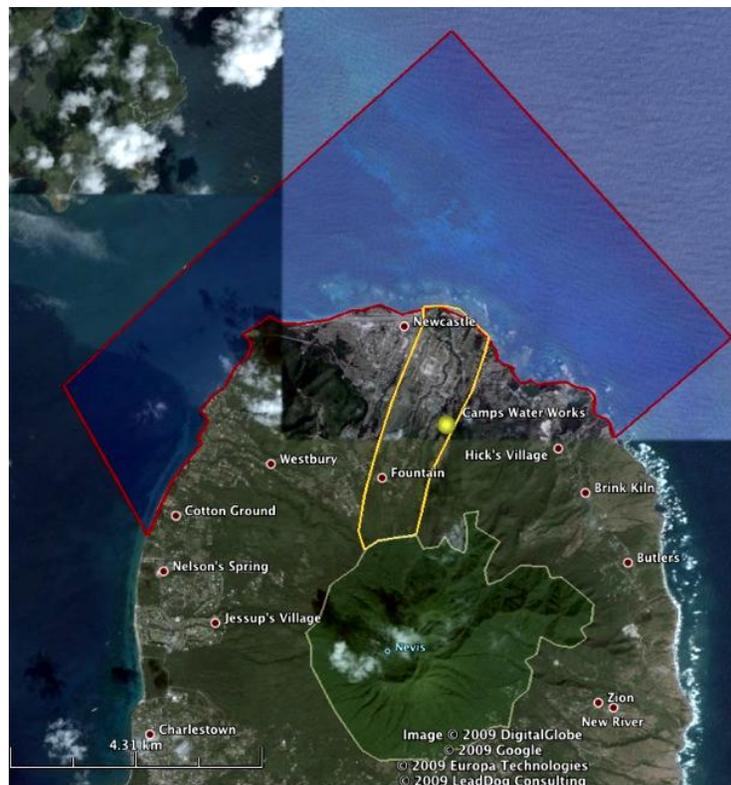




ORGANIZATION OF EASTERN CARIBBEAN STATES (OECS) SECRETARIAT  
ENVIRONMENT AND SUSTAINABLE DEVELOPMENT UNIT (ESDU)  
PROTECTING THE EASTERN CARIBBEAN REGION'S BIODIVERSITY (PERB) PROJECT

## Boundary Recommendations: Nevis Peak National Park and Camps River Watershed



FEDERATION OF ST. KITTS AND NEVIS



JUNE 2009

**Cover:**  
**Image of proposed boundaries for**  
**Nevis Peak National Park and Camps River Watershed**  
**from Google Earth, 23 April 2009**

ORGANIZATION OF EASTERN CARIBBEAN STATES (OECS) SECRETARIAT  
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*PROTECTING THE EASTERN CARIBBEAN REGION'S BIODIVERSITY (PERB) PROJECT*

MINISTRY OF PHYSICAL PLANNING, INFRASTRUCTURAL DEVELOPMENT,  
ENVIRONMENT AND NATURAL RESOURCES  
NEVIS ISLAND ADMINISTRATION



## **Boundary Recommendations: Nevis Peak National Park and Camps River Watershed**

PREPARED BY:

Bruce Potter, David Robinson, Kevel Lindsay, Bruce Horwith,



Tortola, British Virgin Islands ♦ St. Thomas, U.S. Virgin Islands ♦ Washington, DC

June 2009

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# Boundary Recommendations: Nevis Peak National Park and Camps River Watershed

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## SUMMARY

Island Resources Foundation (IRF) was retained by the Environment and Sustainable Development Unit of the Organisation of Eastern Caribbean States (OECS/ESDU) for the "Preparation of a Management Plan for the Proposed Nevis Peak National Park and Camps River Watershed, inclusive of a Biodiversity Inventory and Status Assessment."

This report is a preliminary discussion of the issues affecting the determination of boundaries for the various elements of the possible protected area(s). We have identified three major issues for this report:

**The core areas of the proposed protected areas**, largely as addressed in the original Terms of Reference for the project, including specifically 1) the Nevis Peak area; 2) the Camps River Ghaut from the Peak to the sea, and 3) adjacent marine and coastal areas to the Camps River Ghaut to the north and northwest of Nevis.

**Additional areas of biodiversity and cultural importance.** These areas have arisen largely from field investigations of natural resources and contributions of members of the various stakeholder groups in Nevis. Among the major subjects would be the unique dry land scrub on Round Hill to the northwest of Nevis Peak, the Bath Bog and adjacent historical areas including Fort Charles and the Nelson house; and other ghauts providing unique ecotones and ecological corridors from the Peak to the coast.

**A possible buffer area** below the core Nevis Peak Park area, considering both geographic extents and management issues.

## Core Areas of the Proposed Protected Area

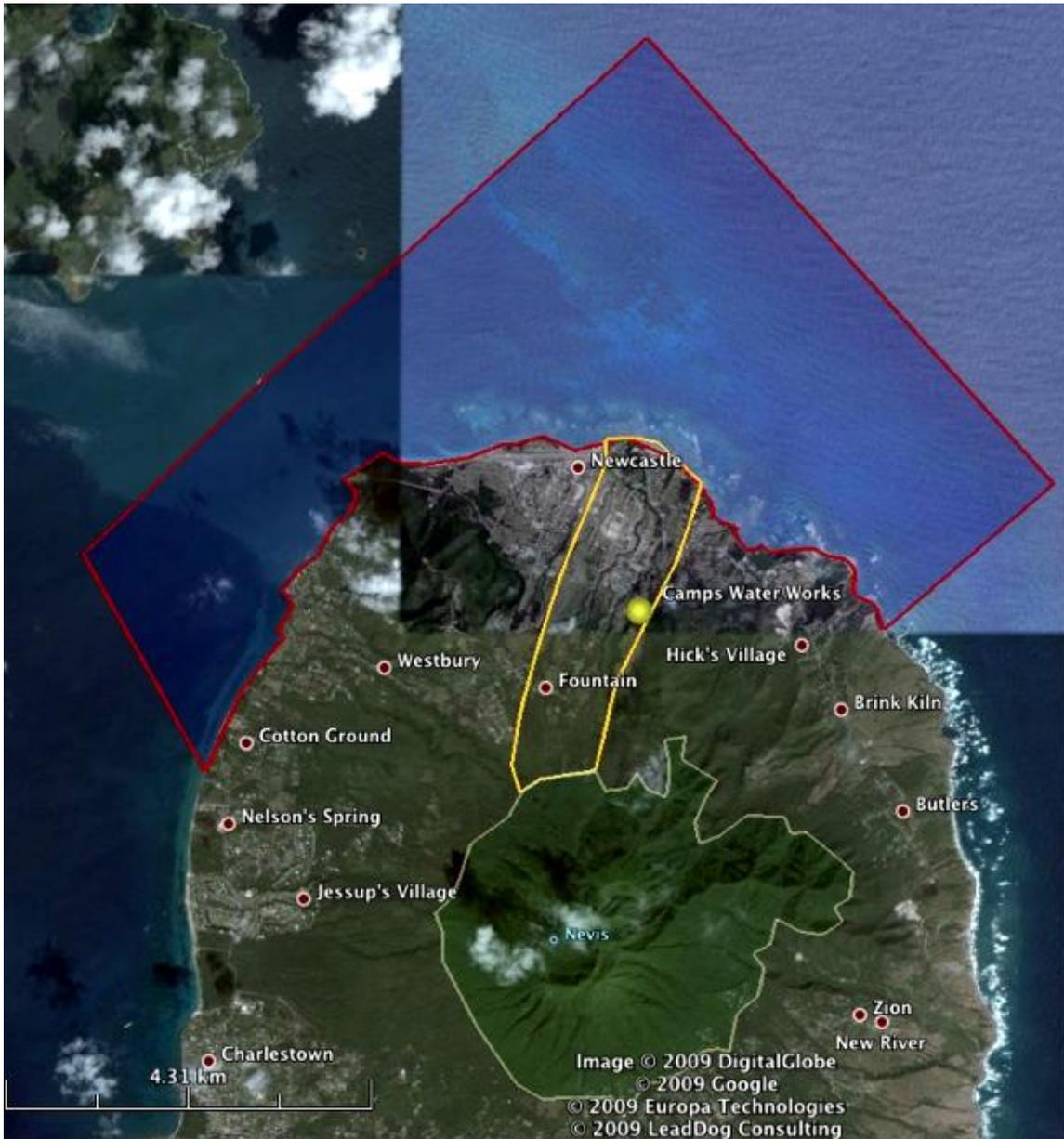


Figure 1: Map of Proposed Protected Areas

Source: Google Earth, April 2009

	Green is 1000' contour boundary proposed for Nevis Peak Park
	Yellow is approximate boundary of Camps River ghaut proposed protected area
	Red is boundary of Nevis coastal and marine protected area

## Nevis Peak

By long-established consent, the area of Nevis above the 1,000-foot contour, extending to and including the 3,200-foot Nevis peak itself is the heart of the previously defined Nevis Peak National Park. This background and the designation of the upper slopes of the volcano as a park is encapsulated in the draft Physical Development Plan (November 2008), section 6.41 and the associated table 6.1 in that document

### Designated Areas of Protection

*[From the draft Nevis Physical Development Plan, p. 33]*

6.41 *Four areas have been identified where conservation and enhancement of the natural environment should take precedence over development. It must be appreciated that once 'key areas' are lost, they are lost for all time. Table 6.1 provides a brief description of the main areas that are designated as Protection Areas. The areas identified are included on the Island Plan Zoning Plan. Within these protected areas there is a strong presumption against any form of development.*

**Table 6.1 Designated Areas of Protection**

<b>Ref. No.</b>	<b>Name</b>	<b>Description</b>
14(1)	Nevis Peak Protected Area	<i>The Nevis Peak National Park is a volcanic formation that consists of the rainforest and all major watersheds and sources as well as nature trails. This area is vital for the control of climate, maintenance of heritage and recreation areas. Among its various features are the Camps and New River springs, nature trails and hikes, virgin forests, abandoned roads and settlement areas, ruins, lush vegetation that includes giant tree ferns, bamboos, sarsaparilla vines, medicinal plants etc. This area also provides habitats for various animals namely the Vervet monkey, coneys, doves, pigeons, and many insects etc. The Nevis Peak National Park is actually at the heart of life on Nevis; its often cloud-covered top and sloping hillside is a scenic beauty which can be seen from anywhere on the island.</i>

*[End excerpt from the draft Nevis Physical Development Plan, p. 33]*

One of the tasks of the Literature Review and the April 2009 field inventory conducted by four external consultants, three local experts and several volunteers, has been to delineate the several micro eco-regions and vegetative communities within the thousand-foot boundary. Field work and literature review are being complemented with lab work and specimen collections being supported by several outside groups, including the University of the West Indies<sup>1</sup>,

The Nevis Peak area is approximately 5 square miles or 12.9 square kilometers, of steep and rugged land, and includes several residential areas along the lower skirts, especially along the southern and western edges, including the traditional communities of Rawlings in the southeast and Fountain to the north of the Peak area.

## Camps River Ghaut

The land area of the Camps River wetland and Ghaut is approximately 1.5 square miles (3.9 km<sup>2</sup>). The ghaut was suggested for protected status both because of the newly recognized role of ghauts in providing "communication lanes" from upland areas to the coast, and as a "slice" through the variety of environments encountered between the shore and the 1000-foot elevation in the Caribbean. In addition, the Camps River Ghaut is readily accessible and the springs that feed the water system are a well-known and frequently used recreational site.

The draft *Nevis Physical Development Plan* describes the Camps River Ghaut area mostly for its significant coastal wetland area, as the third most important protected area in Nevis:

14(3)	Camps River Wetland Protected Area	The wetland system of Camps River consists mainly of mangrove swamp that provides habitats for local biodiversities and is of natural beauty. Currently it is a habitat for shore birds such as the great blue and great white herons, moor hens, kingfishers etc. It enhances the fisheries stock by serving as a nursery for pelagics such as snook and gars. Also it serves as a protection to the land from erosion by wave activities and protects the marine environment from over siltation by surface runoff. (draft Nevis Physical Development Plan, p 34)
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## Proposed Marine and Coastal Area

The surface area of the proposed Nevis coastal and marine area is approximately 13.6 square miles (35.25 km<sup>2</sup>). A detailed study of this proposed marine area and a rationale for the specific boundaries proposed has been contributed to the Nevis Island Administration and shared with this report by Dr. Judy and Bob Foster-Smith, principals of Envision.co.uk, who have also involved the Nevis Ministry of Agriculture, Lands, Housing, Cooperatives, and Fisheries, the Nevis Air and Sea Ports Authority, the Nevis Historical and Conservation Society, Under-the-Sea Nevis, and the Oudlie Beach Hotel in their studies. That report follows:

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<sup>1</sup> Principal in organizing the UWI participation is Ms Yasmin Baksh-Comeau, Curator of the National Herbarium of Trinidad and Tobago at the University of the West Indies, St Augustine, who has agreed to assist in the collection of unique, rare and new species, and to identify and document any relevant information. Specimens collected under the supervision of Island Resources researchers will be sent to Ms. Baksh-Comeau at the UWI campus in Trinidad-Tobago for archiving and further analysis.

## Introduction to Considerations for a Marine Component for Nevis's Protected Areas

The remit of the Nevis Peak Project is to include a marine element in the proposed National Park. The inclusion of an intertidal and offshore area in the Park will ensure that the complete range of the island's natural habitats is represented. It will also encompass an important cultural aspect of the island's economy: fisheries.

### The Marine Protected Area Site

The proposed Marine Protected Area is illustrated in Figure 1, on page 16 below. The proposed Marine Protected Area is basically a rectangular "hat" on the island head of Nevis. The area is bounded to the north east by the outer edge of the stony coral reef, encompassing the 'drop-off' into deep water. The south eastern boundary is situated at right angles to the shore from Hick's Cove (to the south of St James's Church). The north western boundary is the mid-line between Nevis and St Kitts, passing through Cow Rocks. The south western boundary coincides with the line taken between Nag's Head on St Kitts and St Thomas's Church at Paradise. The site includes approximately 7 miles of coastline.

The coordinates of the principal points of the proposed marine protected area are:

On the northwestern Nevis coast (low tide line) START at:

<b>17°10'20"</b>	<b>-62°37'40"</b> , north northwest to the center of the Narrows Channel;
<b>17°11'43"</b>	<b>-62°38'30"</b> , north east up the Narrows, to the Cow Rocks
<b>17°12'53"</b>	<b>-62°37'14.5"</b> , continuing on the same course, to the corner;
<b>17°15'0"</b>	<b>-62°34'45"</b> , turning 90 degrees to the next corner;
<b>17°12'10"</b>	<b>-62°32'0"</b> , turning 90 degrees to intersect the NE coast of Nevis at
<b>17°11'12.7"</b>	<b>-62°33'7"</b>

The boundary then follows the high-tide line (including mangroves and turtle nesting beaches) of the coast to the START point.

### Justification for the Boundary

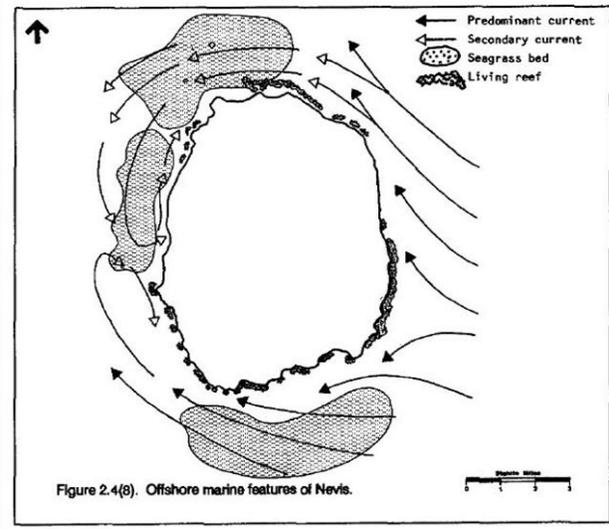
This particular boundary has been suggested to include the ecological integrity of the site as follows:

- The area contains a wide range of marine habitats, namely robust stony coral reef, a distinctive patch of the shallow water Elkhorn coral (*Acropora palmata*, considered to be one of the most important reef-building corals in the Caribbean, and recently declared an endangered species in the USA), soft coral and algal communities, two types of sea grass beds, and a variety of sediment types. Certain marine organisms are dependent on different types of habitat during the course of their life cycle and so it is essential to include the whole 'mix.' Sandy beaches, rocky shore and mangrove communities form the intertidal zone, further increasing the habitat diversity within the suggested protected site. Importantly, the site also includes a range of exposure levels, from very exposed to

sheltered. Together these factors create the basis for a high diversity of marine life. See the copy of the map based on the investigations by Envision (UK) at the bottom of this report<sup>2</sup>.

- The outer reef is important for reducing coastal erosion. It acts as a barrier, protecting the island from the impacts of northerly ground swells and waves.

- Because of the directional nature of the sea currents around Nevis (Figure 2.4 from the *Caribbean Conservation Association Country Environmental Profile for St. Kitts-Nevis, 1991*), the quality of the proposed site has a direct impact on other offshore areas around the island, particularly along the western coast. The fate of the larval stages of many organisms carried to the island from the open ocean, for instance, is largely determined within this proposed marine protected area site; those that survive will continue along much of the west coast of the island, providing an important niche in the food chain that sustains the commercial species. Similarly, any pollutants or sediment originating in the area (such as from the watershed) will also be carried towards the more sheltered western coast.



- The deep water immediately to the north east of the stony reef is subject to up-welling, and this helps to increase the nutrient source within the immediate locality (*i.e.* the proposed area).
- Contained within the proposed area is a nursery ground for both conch and lobster. The conch fishery is important to the local community, contributing approximately EC\$ 5,000,000.00 annually (Ansyn). However, it is increasingly in need of an effective ecosystem-based management. Inshore stocks have been depleted. The nursery area plays a vital role in replenishing stocks to over-fished areas. Sustainable management of the nursery should restore productivity, providing spillover additions to adjacent areas. Initial consultations with conch divers indicate that they are beginning to accept the notion that a “no-take” management scheme might eventually generate increased income as a result of increased productivity (Ansyn).
- The majority of the intertidal sandy bays included in the proposed area are important Turtle nesting sites. Three species of sea turtle nest on the shores of Nevis: the Hawksbill, the Leatherback and the Green. The waters within the proposed site provide year-round foraging habitat for a fourth species, the Loggerhead. All of these species are considered endangered or critically endangered (IUCN), and each is protected against international trade (CITES).

<sup>2</sup> The diversity of this area has also been confirmed by species lists produced by Barbara Whitman of Under Sea Nevis, personal communication from Ellis of the Dive school at Oualie, and Beaulieu (1999).

The process of defining the boundaries also takes into account the need for landmarks so that fishermen and others, who do not have positioning capability on their vessels, can determine their position in relation to the proposed site. Thus, Cow rocks, and St Thomas's Church and Hick's Cove should be specifically mentioned and placed on the map of the site.

[This section of this report is adapted from the report submitted to the Nevis Core Committee by Judy and Bob Foster-Smith, (March 2009).]

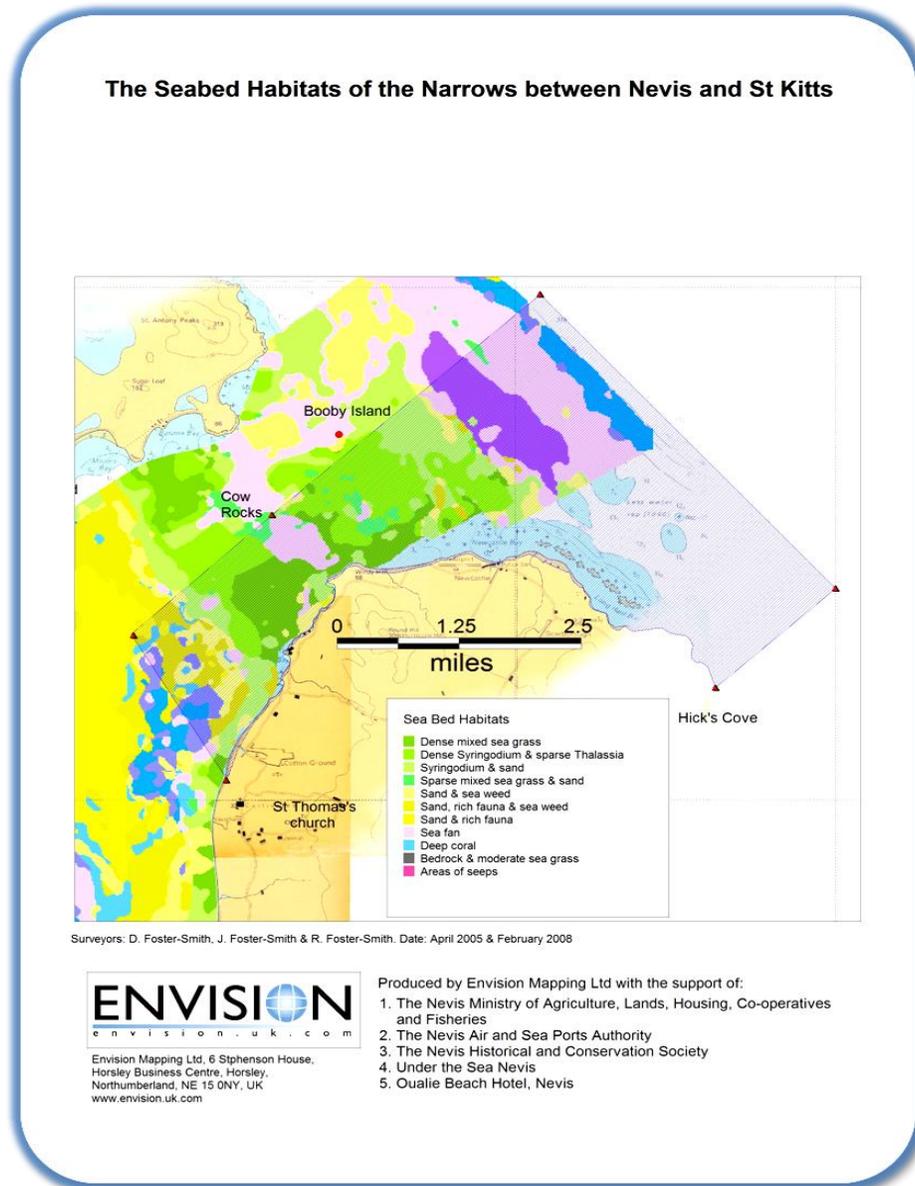


Figure 2  
Habitats and marine protected area boundaries  
*Image by Envision, UK, April 2009*

## Additional Candidate Areas for Protected Status

There are a long series of responsible and authoritative recommendations for additional protected areas in Nevis. The *St. Kitts-Nevis Country Environmental Profile* (CCA & Island Resources, 1991) summarizes several on pages 184 and 185 as presented in Figure 3 and Table 1 below.

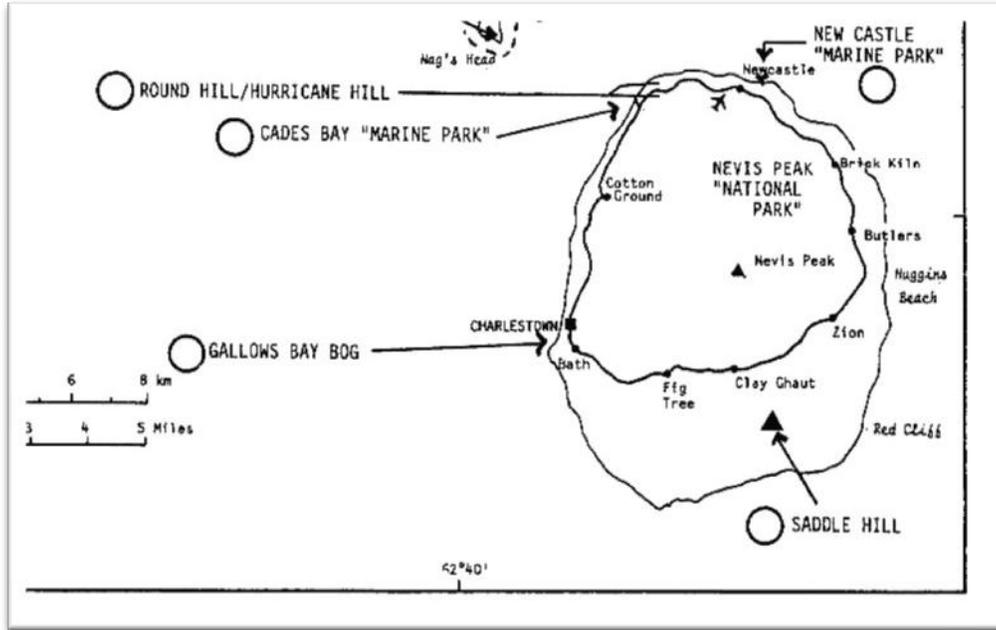


Figure 3.  
Recommended protected areas in Nevis,  
from the *St. Kitts-Nevis Country Environmental Profile* (1991).

Table 1.  
Protected area recommendations from the *St. Kitts-Nevis Country Environment Profile* (1991).

NEVIS	
- NEVIS PEAK "NATIONAL PARK" (NHCS)	Forest and habitat protection; soil, water, and species conservation; recreation
- GALLOWS BAY BOG (NHCS)	Wetland habitat; species protection
- SADDLE HILL (NHCS)	Historic and scenic value
- ROUND HILL/HURRICANE HILL (NHCS)	Bird habitat
- HURRICANE BAY "RESERVE" (NHCS)	Turtle nesting
- CADES BAY "MARINE PARK" (Corker, 1988a)	Reef habitat; Amerindian site; recreation
- NEW CASTLE "MARINE PARK" (NHCS)	Reef protection; recreation

A more extensive list of tourist attractions, many of them with conservation objectives and biodiversity implications, was developed in the *St. Kitts and Nevis Tourism Master Plan* by the Organization of American States (OAS, 1993) as presented in Figure 4 below.

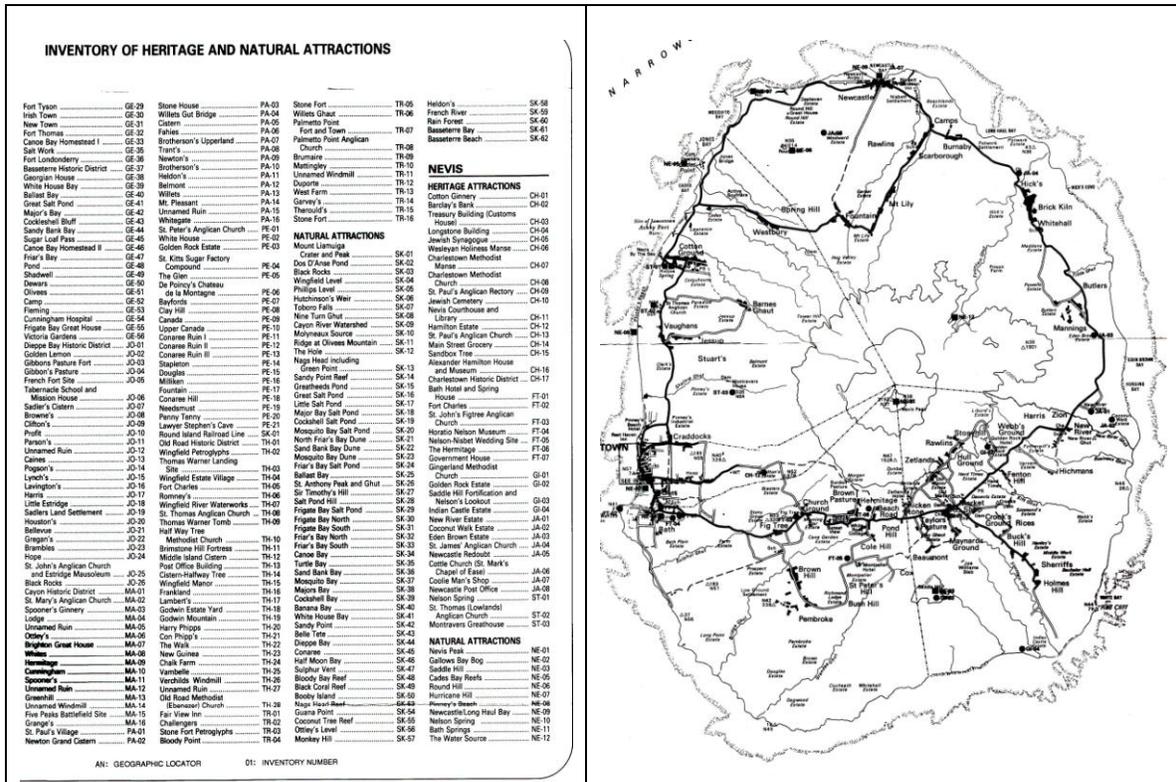


Figure 4. Inventory of heritage and natural attractions in Nevis (from OAS, 1993).

Finally, the draft *Nevis Physical Development Plan* (2008, p. 32) identifies many sites for protection, with the following rationale from this Plan:

6.39 *There is a wealth of biodiversity resources on Nevis particularly in the coastal wetlands, the lower links and the ghuts. The wetlands are of great interest for biodiversity, landscape and nature trails and play a role in the chain of marine life. They are frequently threatened by tourism development (Pinneys, the wetland east of Hurricane Hill, the wetland at Nisbet) and general urban development (the wetland behind Gallows Bay).*

*Any proposed development must recognise their significance and importance. These wetlands play a key role in the overall mosaic of resources in Nevis and must be safeguarded and managed in a sustainable way. The*

biodiversity resources include coral reefs, mangrove stands, sea grass beds, wetlands, and forests.

- 6.40 Through the Environmental Impact Assessment process, the Director of Physical Planning will assess the potential for adverse effects on the islands biodiversity resource. Where unacceptable direct, indirect or cumulative adverse effects are identified, then the development will not be permitted. This includes the potential adverse effects of alien invasive species. Specific consideration will be given to the St Kitts and Nevis National Biodiversity Action Plan, and agreement on the appropriate level of protection of marine, terrestrial and atmospheric resources, organisms and ecosystems, and their diversity.

In addition to sites previously identified, the draft *Nevis Physical Development Plan* gives priority protection to the Bath Bogs Protected Area and the Indian Castle Protected Area.

- |       |                              |   |
|-------|------------------------------|---|
| 14(4) | Indian Castle Protected Area | Indian Castle Conservation Area consists of two stretches of sandy beaches, two Amerindian settlements of archaeological value and a system of offshore reefs that provide a barrier against high waves. The area is mainly used for recreation (p. 34) |
|-------|------------------------------|---|

We have identified three specific sites, with additional natural features that are **not** addressed in the discussion above of Nevis Peak, Camps River Ghaut (including the coastal wetlands), and the Marine and Coastal Area. These additional sites are recommended for further study toward a determination of the need for further formal protection. The boundaries for the three areas for further study are illustrated in the image presented in Figure 5 below.



Figure 5  
Additional areas in Nevis recommended for possible protected area status.

## The Bath Bogs and Adjacent Areas

As a peri-urban area, the Bath Bogs proposed protected area is both small, and multi-faceted, including both an important coastal wetland and migratory bird area with the Nelson Museum and the remains of the major colonial fortification on the island, Fort Charles.

- |       |                             |   |
|-------|-----------------------------|---|
| 14(2) | Bath Bogs<br>Protected Area | Bath Bogs is a wetland system adjacent to the urban fabric of Charlestown. The site consists of mixed estuarine mangrove system, which is fed by the Bath Stream and two additional ponds. This system is a habitat for both resident and migrant shore birds, crustaceans, adult and juvenile fish, etc. One very important feature of the system is its function as a nursery for juvenile fish. This makes it very attractive to various species of migrating shorebird. (p. 33) |
|-------|-----------------------------|---|

## Round Hill

Results of the field surveys and expert testimony have confirmed that the dryland conditions at Round Hill in the northwest of the island are unique for Nevis and deserve special protection,

## Fountain River Ghaut

As mentioned above, the Camps River Ghaut represents an important social and cultural area, in addition to its function as a "communication path" between the coast and the interior Nevis Peak uplands. Because Camps River has been developed for centuries, there are other areas with less intensive development that may be better avenues for communication among the various species and natural communities indigenous to Nevis.

Because of its size and lack of development, we suggest detailed investigation of the natural resource conditions and services provided by the Fountain River Ghaut, and to securing increased protection for its natural values and ecological services.

## Management Issues for Nevis Peak Buffer Areas

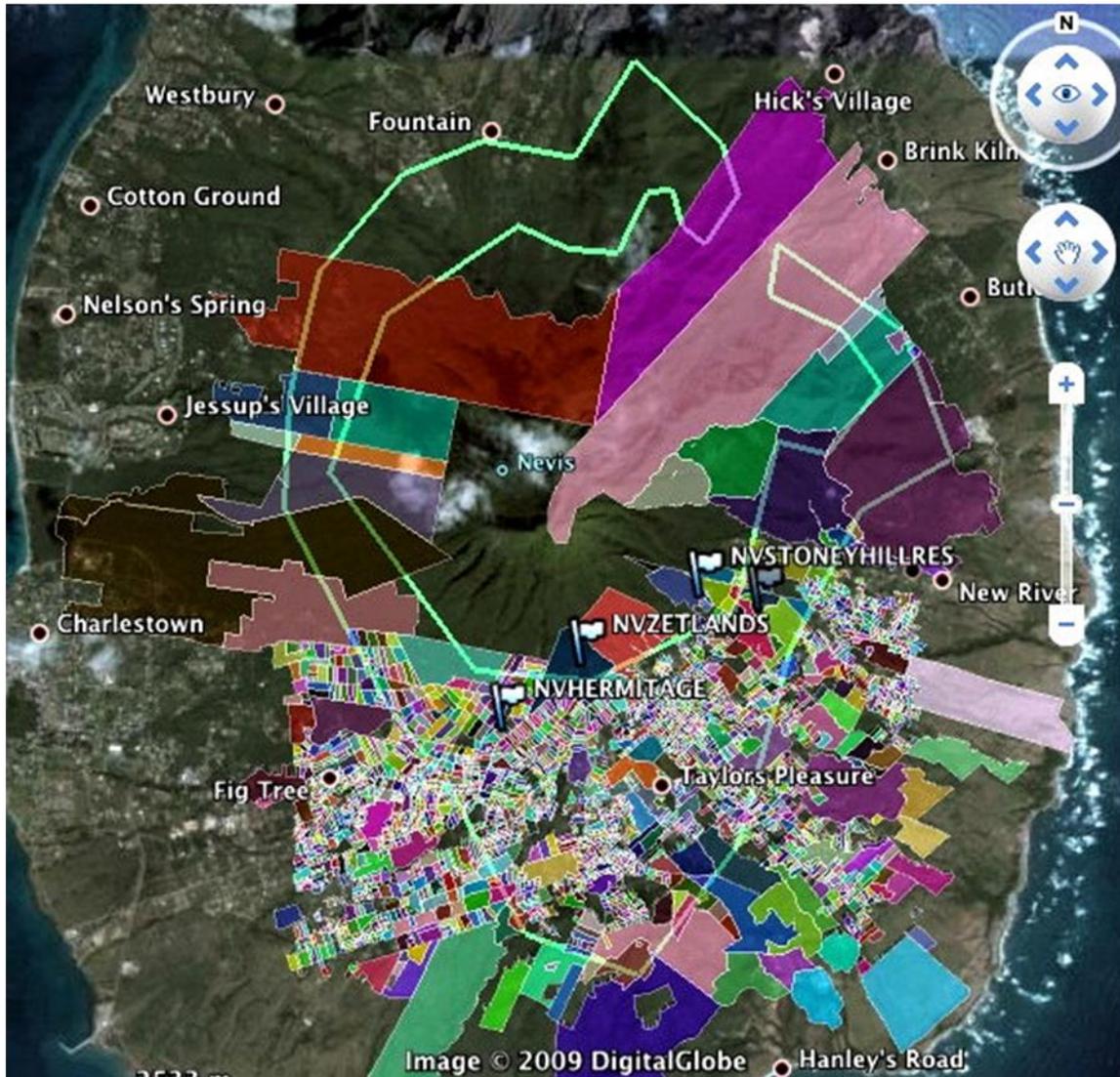


Figure 6  
Nevis Peak Buffer and 3,000 Property Parcels  
*Google April 2009, and Dept of Physical Planning Parcel shapefile*

The illustration in Figure 6 simply shows the overlay of land parcels, especially in the area between Nevis Peak and Saddle Hill, and the buffer area comprised of the “collar” around Nevis Peak, from 700- to 1000-feet above sea level. This is just part of the whole picture of land parcels in Nevis, but it does include over 3,000 individual land holdings.

This makes vividly clear the single biggest problem with the implementation of a comprehensive management plan for the all of the areas on Nevis above 700 feet. The management problem for the buffer area in general is politically complex and logistically very hard to organize on a small island, because it affects thousands of established homes and developed properties.

There are, however, smaller areas of concern within the buffer area that have been identified in general terms as areas of concern in the draft *Nevis Physical Development Plan*, and these are areas with steep slopes. The sketch below, taken from the *St. Kitts-Nevis Country Environmental Profile* (1991) and overlaid on the Nevis Peak Park buffer outline shows that most of the steep slopes in Nevis are inside the Nevis Peak Park, but some steep areas are found in the buffer, such as the area in the northeast corner of the buffer area, overlooking the Camps River Ghaut. These steep areas above 700 feet should be emphasized as areas undesirable for development, with strict enforcement of the restrictions established in the draft Physical development plan.

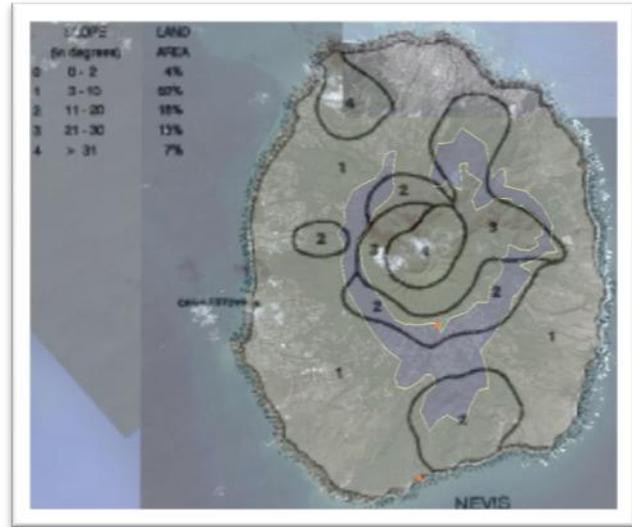


Figure 6  
Steep slopes identified in the *St. Kitts-Nevis Country Environment Profile* (1991) and overlaid on the Nevis Peak Park buffer outline.

## Annex 1

### Selected Excerpts from the (draft) Nevis Physical Development Plan

This Annex includes relevant excerpts from the draft Nevis Physical Development Plan with major effect on the physical extent of protected areas in Nevis. The body of this report identify specifies individual geographic areas that are recommended for attention. This annex highlights land use management policies that will promote biodiversity and socio-economic conservation, both within specific sites and as general governmental policies.

#### Designated Areas of Protection

6.41 *Four areas have been identified where conservation and enhancement of the natural environment should take precedence over development. It must be appreciated that once 'key areas' are lost, they are lost for all time. Table 6.1 provides a brief description of the main areas that are designated as Protection Areas. The areas identified are included on the Island Plan Zoning Plan. Within these protected areas there is a strong presumption against any form of development.*

**Table 6.1 Designated Areas of Protection**

Ref. No.	Name	Description
14(1)	Nevis Peak Protected Area	The Nevis Peak National Park is a volcanic formation that consists of the rainforest and all major watersheds and sources as well as nature trails. This area is vital for the control of climate, maintenance of heritage and recreation areas. Among it various features are the Camps and New River springs, nature trails and hikes, virgin forests, abandoned roads and settlement areas, ruins, lush vegetation that includes giant tree ferns, bamboos, sarsaparilla vines, medicinal plants etc. This area also provides habitats for various animals namely the Vervet monkey, coneys, doves, pigeons, and many insects etc. The Nevis Peak National Park is actually at the heart of life on Nevis; its often cloud covered top and sloping hillside is a scenic beauty which can be seen from anywhere on the island.
14(2)	Bath Bogs Protected Area	Bath Bogs is a wetland system adjacent to the urban fabric of Charlestown. The site consists of mixed estuarine mangrove system, which is fed by the Bath Stream and two additional ponds. This system is a habitat for both resident and migrant shore birds, crustaceans, adult and juvenile fish, etc. One very important feature of the system is its function as a nursery for juvenile fish. This makes it very attractive to various species of migrating shorebird.
14(3)	Camps River Wetland Protected Area	The wetland system of Camps River consists mainly of mangrove swamp that provides habitats for local biodiversities and is of natural beauty. Currently it is a habitat for shore birds

		such as the great blue and great white herons, moor hens, kingfishers etc. It enhances the fisheries stock by serving as a nursery for pelagics such as snook and gars. Also it serves as a protection to the land from erosion by wave activities and protects the marine environment from over siltation by surface runoff.
14(4)	Indian Castle Protected Area	Indian Castle Conservation Area consists of two stretches of sandy beaches, two Amerindian settlements of archaeological value and a system of offshore reefs that provide a barrier against high waves. The area is mainly used for recreation.

## Policy 15 – Designated Areas of Protection

*There will be a presumption against any development, in the areas listed in Table 6.1 and identified under Policy 15 on the Island Plan Zoning Plan*

### Coastal Conservation Areas

6.42 *In addition to the four 'Protected Areas' two Coastal Conservation Areas have been identified. While within these areas development may be possible any development must respect the natural quality of the area in its design, scale and type of use. [Nevis Physical Development Plan, Page 34]*

**Table 6.2 Coastal Conservation Areas**

Ref No.	Name	Description
15(1)	Pinneys Beach Conservation Area	<p>The area consists of 2.6 miles of sandy coastline backed by coconut palms, lagoons and lush vegetation. Major features include both natural and archaeological interests namely;</p> <ul style="list-style-type: none"> <li>• Wetlands: Pinneys Pond, Parish Pond, Cades Pond and Nelson Spring: the first three are estuarine mangrove systems which support both resident and migrant shore birds, turtle nesting, crustaceans, juvenile/adult fish and plants; the latter is a marshland system supported by a coastal spring;</li> <li>• Sandy beach: this is the longest stretch of sandy coastline in the Federation; it provides recreation for various users such as tourists, Nevisians, fishers etc. and is well known for its natural beauty;</li> <li>• Historical structures: Pinneys beach contains ruins of several forts and redoubts commencing at Golden Rock Pavilion in the south and ending with Fort Ashby and James Town in the North</li> </ul>

- 15(2) Sea Haven Conservation Area      This beach is the most significant turtle nesting site in the Federation. Two critically endangered turtles, the leatherback and hawks bill, nest within the shelter of its thick littoral forest, which is made primarily of sea grapes. The area is also a habitat for several resident and migrating shorebirds such as herons, red tail hawk, American osprey, sandpipers etc. Other inhabitants include the Vervet monkey.

## **Policy 16 – Coastal Conservation Areas**

*Coastal Conservation Areas are listed in Table 6.2 and identified under Policy 16 on the Island Plan Zoning Plan. Development may be possible in the defined Coastal Conservation Areas, but it must reflect the importance and significance of the natural environment, habitats and local landscape features. [Nevis Physical Development Plan. Page 36]*

- 6.60 *Individual properties not related to any particular community would normally be resisted unless there were special circumstances, as would any development above the 1000 ft contour. Any development above 700ft would need to take advice from Nevis Water Department with regard to any water supply, drainage issues or additional run off areas. In addition the potential for landslips, impact of removal of vegetation and the problem of setting a precedent would also be considered. Soil loss due to site clearance, water run off, landslips or poor land management can result in sedimentation in coastal areas which can have a serious impact on the coastal and marine environments. [Nevis Physical Development Plan – draft -- Page 42]*

## **Policy 25: – Housing (Outside of Existing Settlements)**

*Proposals for new dwellings or changes of use to residential outside of existing settlements would normally be refused unless:*

- *it can be demonstrated that the dwelling is essential for the efficient and economic use of the local land use;*
  - *that for applications above the 700ft contour, the approval of the Water Department with regard to water service provision and drainage is obtained and the implications of possible landslips and vegetation clearance are clearly addressed; and*
  - *that with regard to change of use there is no other practical alternative use for the building [Nevis Physical Development Plan – draft -- Page 43].*
- 6.61 *For the avoidance of doubt, it is emphasised that land designated for agriculture, industry, public open space or environmental protection will have a high degree of protection from residential use. [Nevis Physical Development Plan – draft -- Page 43]*

### **Policy 52 – Energy**

*... The routing of power lines should take account of the visual effects of tree clearance, impact on watersheds and slope stability and will be resisted above the 700 foot contour. [Nevis Physical Development Plan – draft -- Page 63]*

### **Policy 56 – Water Resources**

*... Development in areas that could affect the quality or quantity of available water resources will not normally be supported. Measures to improve the efficiency in the use of water resources will be supported. The Water Department will be consulted on all planning applications over the 700ft contour. [Nevis Physical Development Plan – draft -- Page 66]*

### **Policy 58 – Drainage**

*The impact of increasing areas of surface run off and developments above 700 feet on the drainage system must be considered and mitigation measures proposed where the development is likely to have an adverse impact or could increase the likelihood of flooding. [Nevis Physical Development Plan – draft -- Page 68]*

## **Annex 2**

### **Additional Publications on Nevis and St. Kitts-Nevis by Island Resources Foundation**

*An Inventory of the Historical Landmarks of St. Kitts-Nevis* (IRF Occasional Paper #15)  
George and Carolyn Tyson, photocopy only, 1974, 13 pp.

*Environmental Agenda For The 1990's: A Synthesis Of The Eastern Caribbean Environmental Profile Series for Antigua, Dominica, Grenada, St. Kitts-Nevis, St. Lucia, and St. Vincent.*  
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