HEMMINGTON FOREST NATIONAL PARK
Protected Area Management Plan

Executive Summary

Hemmington Forest, a 194-acre area of biodiverse dry forest and shrubland in central Cayman Brac, is Crown land and is protected under the National Conservation Act. This Management Plan outlines the establishment of this area as the Cayman Islands' first formally designated and protected National Park.

The goal for management of the Hemmington Forest National Park is to give the residents of Cayman Brac and their visitors an enjoyable and inspirational experience of the natural and human history of the land, while cherishing, restoring and protecting its natural biodiversity.

The traditional Hemmington Road trail will be improved, and a new trail network will extend this and give the public access to representative areas throughout the National Park, including an area where historic land uses will be interpreted.

An open trailhead shelter with information and interpretation, and a small restroom building will be accessed from Songbird Drive. An observation tower will give visitors a view over the forest canopy with its tall, emergent Yellow Mastic trees that are characteristic of this area.

The boundaries of the protected land will be surveyed and posted. The natural environments in the Park will be enhanced by selective control of alien invasive plants and animals, restoration of parrot nesting and allowing natural rewilding of disturbed areas.

The National Park will be freely open to the public. It will be managed by the Department of Environment, in collaboration with the Department of District Administration and local community groups. DoE will employ a Protected Area Officer for the Sister Islands who will be responsible for managing and maintaining the Park's infrastructure, drawing on an annual maintenance budget requested from the Environmental Protection Fund.

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Introduction

This Management Plan envisages that the Protected Area it encompasses will be managed as a National Park, with an enhanced walking trail network suitable for a wide range of ages and physical abilities, and designed to bring visitors into close contact with nature and the human history of this land. Associated infrastructure will include a sheltered meeting area, restrooms, interpretation, and a canopy level observation tower.

Drafting of this Management Plan began in 2019 with visioning by a protected area management planning team at DoE, which concluded that the area would be suitable as a National Park under IUCN criteria, but that more detailed planning should be subject to biological surveys and stakeholder consultation. A team from TRU surveyed the protected lands on the ground, providing detailed species lists to enable generation of habitat maps, based also on government's Land Information System's digital aerial photography and LIDAR images.

Key stakeholders were identified by the protected area planning team, followed by a series of consultations on Cayman Brac and on Grand Cayman. The draft plan was then put out for general public consultation from 31 October to 28 November, 2025.

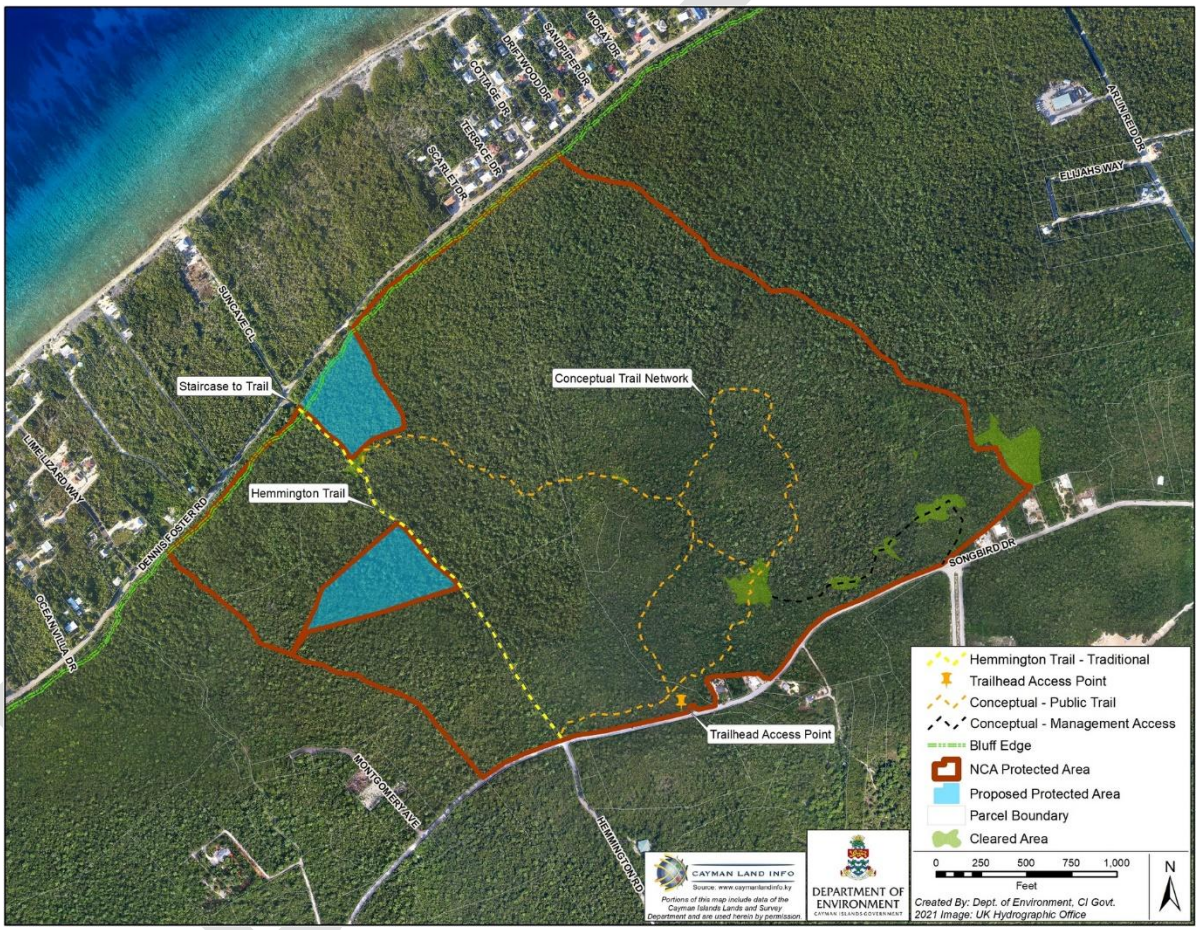
Under the provisions of NCA section 10 (9) this Management Plan must be reviewed and revised as needed no later than five years after its commencement, but may be reviewed earlier if circumstances so require.

Hemmington Road trail 2024
Photo: Nick Ebanks

1. Current Status

1.1. Location

Hemmington Forest National Park currently occupies 194.1 acres in west-central Cayman Brac, with additional lands identified for purchase and protection subject to ongoing inquiries and negotiations with the landowners. It is bounded to the south by Songbird Drive, to the North by the edge of the bluff, and a traditional walking trail (Hemmington Road) gives access through part of the protected area.



Map 1: Location of Hemmington Forest National Park, Cayman Brac West

1.2. Regional Context

The forests and shrublands of Hemmington Forest are extremely high in native biodiversity. Their protection assists in meeting the Cayman Islands' commitments under the Convention on Migratory Species and the Convention on Biological Diversity. The Department of Environment is adopting the IUCN category system for protected areas to guide local management and facilitate international contextualization of the Cayman Islands' Protected Areas. This protected area is designated as a ***National Park***.

1.3. National Context

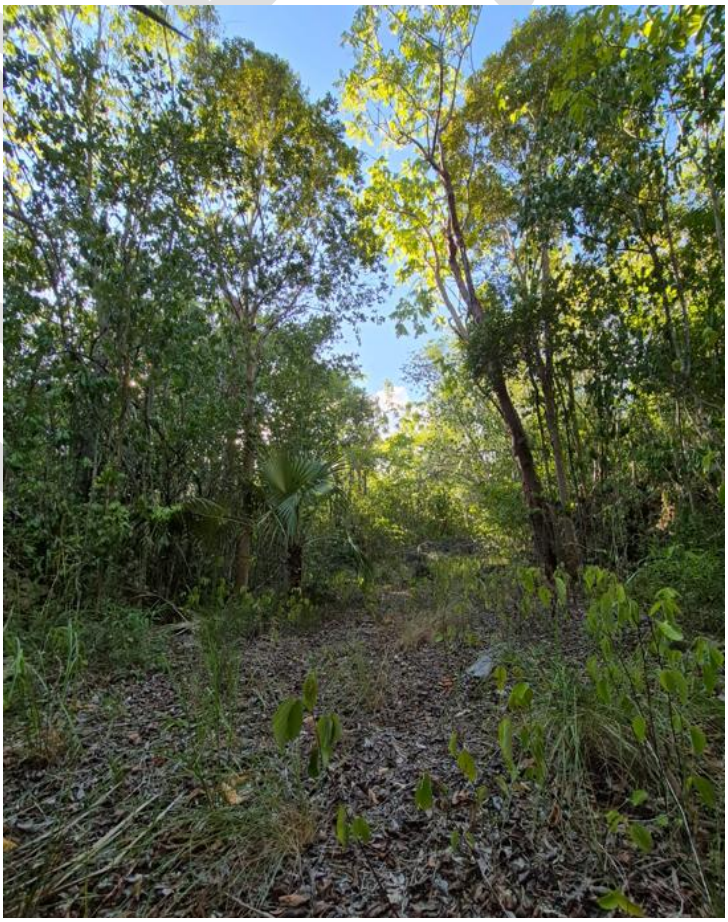
1.3.1. Basis of Protection

Hemmington Forest is defined as a Protected Area under the National Conservation Act ("the NCA") 2013 and became protected by issuance by Cabinet of The National Conservation (Protected Areas) (No. 2) Order, 2017. The site meets all the purposes, objectives and criteria for protected areas set out in section 8 of the NCA. Management Plans for Protected Areas established under the NCA are called for under section 10 of the Act, with Schedule 3 of the NCA laying out specifically required plan components.

1.3.2. Land Ownership

The protected area of Hemmington Forest is Crown property. Two additional land parcels in private ownership are included in the Protected Area Order, as land also intended to become part of the Protected Area, but the Order in respect of these parcels only comes into effect at such time that the land passes into Crown ownership.

1.3.3. Historical Use



"Hemmington Road" is a traditional pedestrian pathway and right of way, that passes through and along the western boundaries of the protected area. According to unverified accounts collected so far, Hemmington Road was most likely named after Hemmington Chesse Foster who would have originally established the pathway sometime in the latter half of the 1800's to access agricultural plots known as "Halfway Grounds" and transport provisions across family-owned Bluff lands. The trail has long been maintained by District Administration as a nature tourism and local recreational asset. It can be accessed from Songbird Drive and via a wooden staircase that ascends the northern cliff of the Bluff.

1.3.4. Evaluation of Protected Area

The dry forests of Cayman Brac, Little Cayman and Grand Cayman are floristically distinct, and of the three islands, Cayman Brac has the lowest proportion of protected area. Hemmington Forest therefore takes on a high value both for Cayman Brac and for the Cayman Islands as a whole. It protects a large area of Cayman Brac's distinctive and biodiverse xeromorphic forest and shrubland ecosystems.

The entire area of the National Park is a complex mosaic of primary xeromorphic forests and shrublands, with small areas of old-growth secondary forest on historic farm land with remnant fruit trees. The area is notable for its tall emergent Yellow Mastic trees (*Sideroxylon foetidissimum*) and its value as habitat for the Cayman Brac Parrot (*Amazona leucocephala hesterna*).

Other notable species of concern present in the Protected Area include Red-legged Thrush (*Turdus plumbeus coryi),* Vitelline Warbler (*Setophaga vitellina crawfordi*), and a wide range of seasonally migrant birds. Vascular plants include a wide diversity of regionally and locally endemic species.

Cayman Brac Parrot

Yellow Mastic Tree

Red-legged Thrush

Sister Islands Rock Iguana

2. Management Goal and Programmes

The goal for management of the Hemmington Forest National Park is to give the residents of Cayman Brac and their visitors an enjoyable and inspirational experience of the natural and human history of the land, while cherishing, restoring and protecting its natural biodiversity.

Abbreviations used in the following tables:
DoE – Department of Environment
TRU – Terrestrial Resources Unit, Department of Environment
ASCO – Alien Species Control Officer, TRU
PAO – Protected Area Officer, TRU
DOA – Department of Agriculture
DOEH – Department of Environmental Health

3.1 Public Use Management

The National Park will be freely open to the public. The traditional Hemmington Road trail will be improved, and a new trail network will extend this and give the public access to representative areas throughout the National Park, including an area where historic land uses will be interpreted. An open trailhead shelter with information and interpretation, and a small restroom building will be accessed from Songbird Drive. An observation tower will give visitors a view over the forest canopy with its tall, emergent Yellow Mastic trees that are characteristic of this area.

Programmes	Actions	Agency
Design and Procure Services for Site Development	Procure services of an architect	DoE
	Design layout of access, parking, meeting shelter, toilets, trail network; and canopy observation tower	Architect & DoE
	Design trail construction specifications and methods	Architect & DoE
	Design interpretation for natural environment and historic farming themes	Architect & DoE
	Develop detailed cost estimates	Architect & DoE
	Based on design work above, develop a detailed maintenance plan	DoE, District Admin
	Write and submit Business Case for development and subsequent maintenance	DoE
	Procure contractors	DoE, Procurement Office
Create extended trail network	Contract a trail building crew with preference to Cayman Brac-based bids	DoE, Ministry HES
	Build new trails and improve Hemmington Road trail, prepare old agriculture interpretation site	Contractor under DoE oversight

Construct meeting shelter and restrooms with parking at trailhead	Contract building contractor	DoE, Ministry HES
	Construct to plans	Contractor under DoE oversight
Construct canopy level observation tower	Construct to plans (assuming same procurement and contractor)	Contractor under DoE oversight
Maintain and interpret a representative area of historic agriculture	Identify a cleared area, or one in an early state of rewilding, with remnant fruit trees and soil, on or near a public trail.	DoE, District Admin
	Develop and implement an annual area management plan to maintain this clearing in optimal state to complement interpretational signage/technology.	DoE, District Admin
Open to Public	Hold an official opening and commence operation	DoE, District Admin, MPs
Involve public in monitoring rewilding	Invite members of the public to take and submit their own photographs from repeat fixed point stands readily accessible from trails	TRU, PEO officer DoE, Public
Develop and implement an on and off-site public engagement strategy	Investigate e.g.: options for live streaming from the Protected Area (e.g. parrot nest cam, weather cam); links to the local schools; volunteer guided walks; "Friends of Hemmington Forest" association etc.	DOE, NTCI, Schools

3.2 Natural Resource Management

The boundaries of the protected land will be surveyed and posted. The natural environments in the Park will be enhanced by selective control of alien invasive plants and animals, restoration of parrot nesting and allowing natural rewilding of disturbed areas.

Programmes	Actions	Agency
Mark the outer boundaries of the Protected Area	Design and cost boundary signs and mounts, identify and quantify placements	DoE
	Procure services of a land surveyor	DoE
	Mark boundary sign locations	Contracted surveyor w/ DoE oversight
	Procure signs and mounts	DoE
	Procure sign installation contractor	DoE
	Install boundary signs	Contractor w/ DoE oversight
Include Hemmington Road footpath into Protected Area	Seek a Protected Area Order to include the unparcelled segment of Hemmington Road, where it passes through the National Park	NCC, Cabinet
Complete purchase of land for protection	Continue efforts to purchase 101A/11 and 101A/8	Lands & Survey, Ministry HES, Cabinet
Control alien invasive species	**Wild Tamarind:**	
	Map distribution of *Leucaena leucocephala* in the protected area	TRU

Control alien invasive species	Assess feasibility of local eradication	TRU
	If feasible, develop and implement eradication plan	TRU - ASCO
	Shamrock:	
	Map extent of *Tecoma stans* invasion in formerly farmed areas	TRU
	Assess if this species is impeding rewilding in any areas where control is feasible	TRU
	Brazilian Pepper:	
	Monitor for spread near and in the National Park: control pre-emptively using basal bark treatment	TRU – ASCO & PAO
	New alien species threats:	
	Monitor for new invasive species threats and assess	TRU – ASCO & PAO
	Conduct localized control as indicated by assessment above	TRU – ASCO & PAO
	Chickens:	
	Determine if any neighboring landowners own chickens	TRU - ASCO w. DOA
	If so, seek commitments to retain them on property vs. risk loss to lethal control in Nat Park	TRU - ASCO w. DOA
	Conduct regular searches of accessible areas and trap/shoot all chickens found	TRU - ASCO
	Feral Cats:	
	Monitor development of new technology for control of feral cats, and test when available	TRU
	Implement pulsed feral cat suppression at times of bird nesting and parrot fledging	TRU/ASCO
	Green Iguanas:	
	Monitor for presence, add to ongoing control programme as necessary	ASCO
	Rats:	
	Maintain high hygienic standards in visitor areas to avoid attracting rats	TRU - PAO
	Operate snap traps in bait boxes routinely around the visitor shelter and toilets	TRU - PAO
Restore parrot nesting cavities	Map any old nest trees in the Nat Park that were cut open or fell and can be restored	TRU - PAO
	Map active parrot nesting trees to the extent possible	TRU - PAO
	Implement nest restorations if available and as appropriate	TRU - PAO


Domestic Cat


Domestic Chicken


Black Rat


Green Iguana

3.3 Monitoring

Programmes	Actions	Agency
Monitor trail usage volume	Using motion sensors and ground level camera placements, record human traffic rates without capturing information that could identify persons (also use cameras and sensors to protect parrot nest trees and other sensitive environmental resources)	TRU, PAO
Monitor for littering	Record simple metrics on any litter removed from trails and public areas: use this information to guide responsive management actions	PAO
Monitor tree canopy health and National Park boundary integrity	Include the Nat Park in DoE's periodic satellite image analysis for reporting condition of protected areas to UK	DoE, JNCC
Monitor diversity and abundance of bird species	Investigate feasibility and cost-effectiveness of acoustic recording with automated bird and bat call identification	TRU
	Deploy annual spring time audio monitors if technique is viable.	TRU
Monitor native and alien animal abundance	Investigate viability and cost-effectiveness of a low power, wide area radio network of cameras and motion sensors to serve multiple purposes throughout the National Park	TRU
	Implement if viable, or develop alternative protocols with standalone game cameras	TRU
	Use cameras to monitor Rock Iguanas	TRU
	Use cameras to generate indices of cat and rat numbers to inform and assess control efforts	TRU
Monitor rewilding of disturbed areas	Set up fixed stands and instructions for repeat fixed point photography	TRU, PAO

3.4 Infrastructure Management

[This section to be completed once discussions with District Administration have resolved how they and DoE will work together; and discussions with the NTCI have indicated what involvement they may have.]

3.5 Administration

Establish human resource capacity for management of Protected Areas in the Sister Islands	**Establish a Protected Area Officer post (Sister Isles) and recruit**	**DoE/Ministry HES/PoCS**
	Convert grant-funded fixed term contract for Alien Species Control Officer to a permanent post	DoE/Ministry HES/PoCS
Commence budgeting for annual maintenance and operating costs	Formalize a maintenance schedule for all Park infrastructure, and develop an annual budget estimate to be requested starting in the 2028-9 budget cycle	DoE, Ministry HES

3. Directives

The following Directives are made under section 11 of the NCA.

In these Directives the term "Management Officer" means an officer of the Department of Environment assigned with responsibility for implementing the relevant aspects of this Management Plan. Any contravention of these Directives constitutes an offence under the NCA.

Directive 1: Site development

Notwithstanding s.32 of the NCA, Management Officers, and persons acting under contract or in partnership with or under their agency, may remove vegetation and modify the ground surface in the National Park for the purpose of developing and maintaining visitor and management infrastructure as specified in this Management Plan.

Directive 2: Access

Persons visiting the National Park must remain only on the paths and other public access areas provided, unless otherwise authorized by a Management Officer. Paths are for pedestrian use only. Bicycles and motorized or motor-assisted transport devices are not permitted, excepting motorized wheelchairs may use the sections of the trail designed for this and signposted as wheelchair accessible.

Directive 3: Equipment protection

Persons may not interfere with or tamper with or damage in any way any equipment or infrastructure in the National Park that has been installed by Management Officers for the purposes of monitoring wildlife, alien species, visitor frequency, weather or any other parameter; and/or for the purposes of control of alien species.

Directive 4: Pets and alien species

No person is permitted to bring a dog or cat or other pet animal into the National Park, or to allow their dog, cat or other pet to enter the National Park.

Any dog found alive in the National Park may be removed by a Management Officer and transferred to the Pound at the Department of Agriculture. Any cat roaming or living within the National Park may be subject to any lethal or other control measures as may be in operation at that time. Management Officers and persons acting under their agency may also remove and control any other alien plant and animal specimens or populations occurring within the National Park.

Directive 5: Littering, Vandalism and Feeding of Wildlife

Persons entering the National Park may not leave any litter, food remains, or other waste material in any place other than in covered receptacles provided specifically for this purpose.

Persons defacing or causing damage to infrastructure or natural features in the National Park are guilty of an offence under the NCA. Carving or painting inscriptions on infrastructure, dead wood or living plants constitutes defacement and is therefore prohibited.

It is prohibited for any person to offer food to, or leave food accessible to any wild animal in the National Park. Feeding wildlife disrupts natural feeding behaviour, may cause health issues, and often stimulates aggressive behaviour in the fed animals, as well as attracting rats to any unconsumed residues.

Officers and agents of the DOE may set baited traps and lures for alien species control purposes provided that measures are taken to minimize any risk of native non-target species being trapped or harmed, and that expired or unconsumed bait is disposed of properly.

Enforcement of these section 11 Directives, and of section 32 of the NCA in respect of the National Park generally, lies primarily with the Conservation Officers of the Department of Environment, with assistance from the Royal Cayman Islands Police as and when necessary.

4. Policies

Health and Safety Policy

Visitor infrastructure at the National Park will be open to the public on a generally self-guided basis. There will be no permanent staff presence and no gated opening or closing hours. For these reasons, public safety advice shall be displayed prominently at the trailhead shelter and on related digital platforms:

- Visitors are responsible for their own safety
- Carry sufficient drinking water
- Use sun protection
- Stay on the trails
- Choose cooler times of day for walking
- Plan times to avoid being caught by nightfall
- Know the emergency services contact number

Drinking water will be permanently available at the trailhead shelter/restrooms area. Trail signage will advise visitors of distances and estimated times to walk various routes.

Trail segments may be temporarily closed to public access by the Protected Area Officer if a hazard or obstruction affecting the trail is observed or reported.

Public Liability Policy

With reference to the health and safety measures above, visitors to the National Park must be advised that their safety is their own responsibility, and that Government is not liable for consequences of careless, unwise or irresponsible behaviour.

Disaster Preparedness Policy

Resiliency to damage during hurricanes and tropical storms will be a key design criterion for all infrastructure. A formal Disaster Preparedness Plan will be developed and adopted by DoE in the year of opening of the National Park, with primary emphasis on extreme weather events.

Research Policy

Persons wishing to conduct scientific research in the National Park must first apply to the DoE for authorization using the Application to Conduct Scientific Study form provided online on the DOE web site.

Community Participation Policy

The National Park is intended to serve as a resource to the community as well as a nature tourism asset, and may be of value to school groups, tour operators, and community groups such as the National Trust and CBRAC. Any formal or long-term participation agreements can be structured between interested community groups and DoE. DoE will always consider proposals in relation to its primary mandate to protect the natural resources the site contains, and to ensure the quality of experience for all visitors is maximized.

Public Use Policy

The site is intended to be open to the public, with non-invasive devices constantly monitoring of the volume of visitor traffic on the trails. It is expected at Cayman Brac's current resident population and visitor levels that the trails will be lightly used, and visitors to the Park will be able to experience the forest, wildlife and interpretation without unwanted distraction by other visitors. If at any time monitoring suggests carrying capacity limits need to be set, DoE will review this and consider revisions to this policy and the Park access arrangements.

All visitors to the National Park are expected to abide by the rules set out in this Management Plan, which must also be displayed at the trailhead shelter. Any person violating the NCA inclusive of the Directives may be required to leave by a Management Officer, a Conservation Officer or an officer of the RCIPS.

5. Timeline

This provisional timeline for the initial development phase of the National Park is highly dependent on budget approval and successful procurement of contractors.

Action	Target start date	Target completion date
Budget submissions	September 2025	December 2025
Preparation of Business Case	Underway	January 2026
Ministry approval of Business Case	February 2026	February 2026
PPC approval	March 2026	March 2026
Procurement	April 2026	June 2026
Contracting	July 2026	August 2026
Infrastructure development	September 2026	December 2027

6. Financing

Financing for the development of infrastructure for the National Park will be requested by DOE from the Environmental Protection Fund, for each of the years 2026 and 2027. These funds (which are not restricted to this Protected Area) should be made available for architectural design services, surveying and posting boundaries, building the structures and trails outlined in this Management Plan, installing signage, interpretation, and monitoring and control equipment.

Annual recurrent costs cannot be drawn from the infrastructure development budget, and will have to be provided for in DoE's and/or District Administration's operational budget:

- Cleaning and stocking the restrooms, on site litter management
- Garbage collection
- Keeping the trails clear of debris
- Signage cleaning, repair and replacements
- Periodic inspection and maintenance of trailhead structures, Bluff cliff stairway, trails, and observation tower
- Alien species control costs (inter-island airfares, supplies)

DoE's personal emoluments budget will need to be adjusted to include:

- Protected Area Officer/Warden salary and benefits (from 2027)
- Alien Species Control Officer salary and benefits (from 2027)

7. Action Plans

A detailed plan and budget for site development will be developed as part of a Business Case which, subject to approval by the Ministry HES and the Public Procurement Committee and the associated budget allocation requests, will be used to procure contractors in order to implement the infrastructure development called for in this Management Plan.

After completion of the infrastructure and the formal opening of the National Park, budgeting and annual work planning will be conducted as part of the DOE's normal operation.

8. Evaluation and Review

DOE will create internal reports on all substantial management actions as they are delivered, and on the outputs of all research and monitoring actions. Once the National Park is open and operational, DOE will conduct annual reviews of these reports to enable adaptive management to respond to any changes in the natural environment including any external factors which may affect it, or its management.

This Management Plan will be reviewed no later than five years from its commencement, and if any change is needed, revisions will be made following the requirement of Section 10.9 of the NCA.

The national flower, the wild banana orchid has a subspecies endemic to Cayman Brac.

9. APPENDICES

9.1. Management and Organizational Background

[This section to be completed once discussions with District Administration have resolved how they and DoE will work together; and discussions with the NTCI have indicated what involvement they may have.]

Primary management authority for the Hemmington Forest National Park lies with the Cayman Islands Department of Environment, whose mission is to facilitate responsible management and sustainable use of the natural environment and resources of the Cayman Islands through environmental protection and conservation programmes and strategies. The DoE's governing legislation is the National Conservation Act 2013, which provides the legal basis for establishing and managing Protected Areas.

DoE is structured into a number of specialist Units, one of which is the Terrestrial Resources Unit (TRU) whose work encompasses land-based conservation including protected areas and protected species, and control of alien invasive species. TRU currently has six full time staff comprising a Manager, four Research Officers and an Alien Species Control Officer (currently grant funded and Sister Islands based). TRU can draw on support from other DoE Units (especially the Environmental Management Unit, and Legislation Implementation & Coordination Unit); and from DoE senior management (a Director and two Deputy Directors).

The TRU currently lacks the human resource capacity to provide ongoing maintenance, caretaking and visitor management in an expanding terrestrial protected area network.

Human resource strengthening will be required to enable DoE to manage the Hemmington Forest National Park. Specifically, this will require establishing a new Sister Islands based post for a Protected Area Officer/Warden, and the establishment of the Alien Species Control Officer as a permanent post within TRU. Both these posts will have responsibilities throughout the Sister Isles, while ensuring an adequate presence to implement management actions in this National Park.

9.2. Stakeholder Context

The Cayman Islands Department of Environment is the lead agency responsible for drafting this Management Plan, as required by the NCA section 10 (3).

The National Conservation Council is the entity responsible for assessing public feedback on the draft Management Plan, and for submitting it to Cabinet for final approval.

The National Conservation Council and the Department of Environment fall within the Ministry of Health, Environment and Sustainability.

The Government's District Administration on Cayman Brac currently takes responsibility for maintaining all the traditional footpaths across the Bluff, including Hemmington Road along with the staircases that ascend the cliffs.

Other key stakeholders include the National Trust for the Cayman Islands, especially the Trust's Cayman Brac District Committee; the Sister Islands Tourism Association; and landowners with property adjacent to the protected area.

Individual stakeholders include owners and occupants of five residential house lots located between Songbird Drive and the southern boundary of Hemmington Forest National Park, and individuals whose ancestors were involved in farming the land in the National Park that is now in secondary growth.

Hemmington Forest lies in the constituency of the Member of Parliament for Cayman Brac West and Little Cayman.

Stakeholder consultations conducted prior to, and during development of this Management Plan are detailed below:

Stakeholder	Interest areas	Consultation mode	Date(s) consulted
Ministry of Health, Environment & Sustainability	Policy, budgeting, procurement	In-person and email	June 2025;
District Administration, Cayman Brac	Management authority partner	In-person meeting	
Ministry District Administration & Home Affairs	Policy guidance for DA involvement	In-person meeting	
MP for Cayman Brac West & Little Cayman	Constituency representation	In-person meeting	
National Conservation Council	Review and first level approval of Plan	DoE presentation to NCC	
Cabinet	Final approval of Plan	Paper by Ministry HES	
National Trust, Cayman Brac district	Volunteer support, conservation partner	Presentation at membership meeting	

Sister Islands Tourism Association	Visitor attractions and activities	e-mail circulation	
Adjacent residential land owners	Boundaries, access, roaming pets	In-person visits	
Other adjacent landowners	Boundaries, adjacent land use	Registered letters as part of formal consultation	
Persons with family connections to the land	Historical land use interpretation	Individual meetings and correspondence	December 2017;

9.3. Physical Environment of the Protected Area

9.3.1. Climate

The Cayman Islands' climate is sub-humid tropical with strong seasonal variation.

Central Cayman Brac experiences an average annual rainfall of approximately 46 inches (1,174mm), but this varies greatly in amount and seasonal pattern. Typically, the months February to April are arid, with the rainy season extending from May to November. December and January are variably drier, transitioning to the following dry season (Burton 1994).

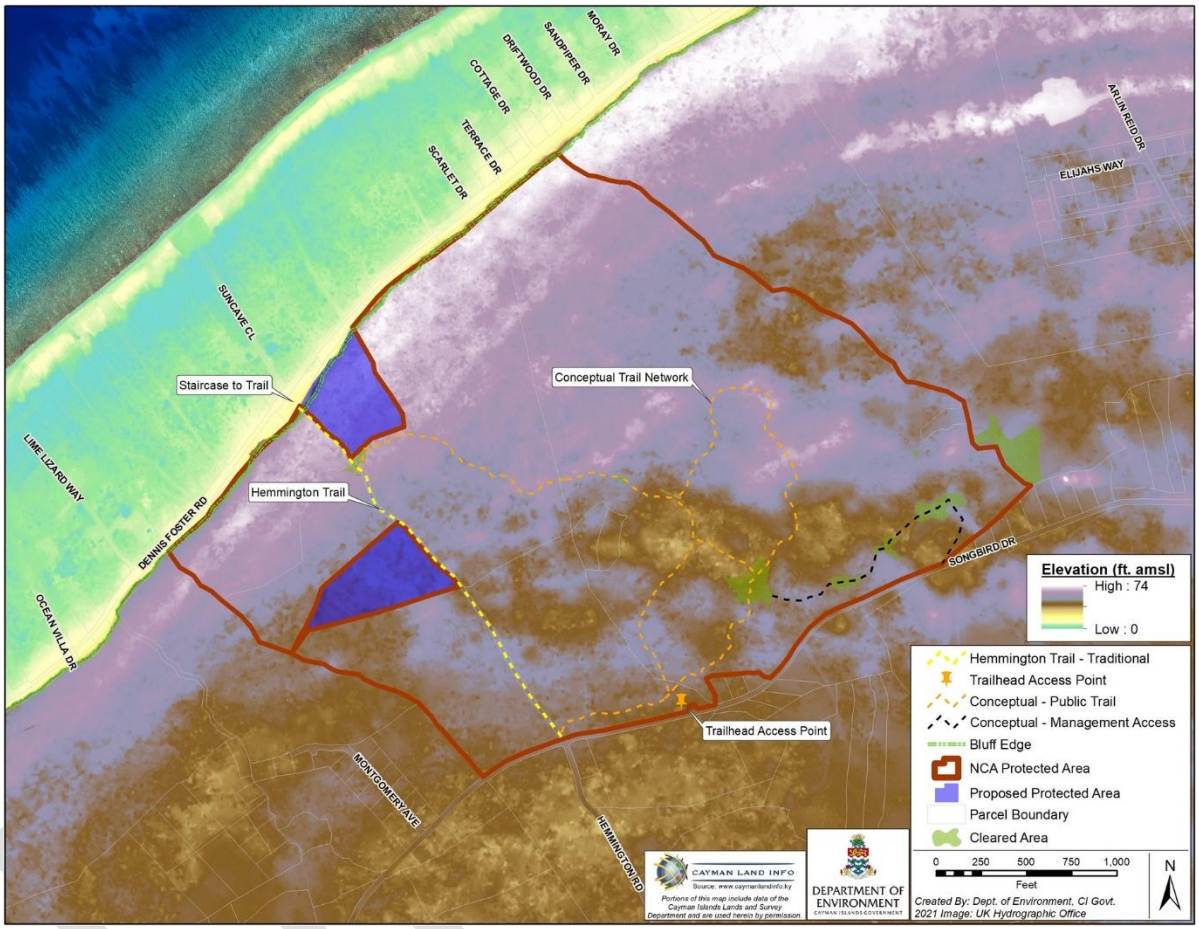
Tropical depressions, storms and hurricanes exert a strong influence on rainfall patterns. Winds are generally light and dominated by trade winds from the Northeast to Southeast, but hurricane winds can inflict severe physical damage to the vegetation structure. Evidence of widespread tree canopy damage caused by hurricane Paloma in 2008 can still be seen in 2024, though recovery is well advanced.

9.3.2. Geology, soils and hydrology

The majority of Hemmington Forest is growing on dolostone karst terrain of the Cayman Formation, with localized accumulations of "red mold" oxisol soils derived from airborne Saharan dust fallout, perhaps supplemented by dust fallout from regional volcanic events. The underlying hydrology of the Brac's Bluff is poorly known, but sinkholes and caves in nearby areas show the bedrock is highly porous and the trees are rooted into the damp but aerated "vadose" zone well above any permanent water table.

9.3.3. Topography

The land elevations in the National Park range from 35ft to 71ft above sea level, with the highest land adjacent to the northern cliff edges. Generally, the elevation rises east-northeastwards in keeping with the overall slope of the bluff.



Map 2: Land surface elevation of the National Park and surrounds

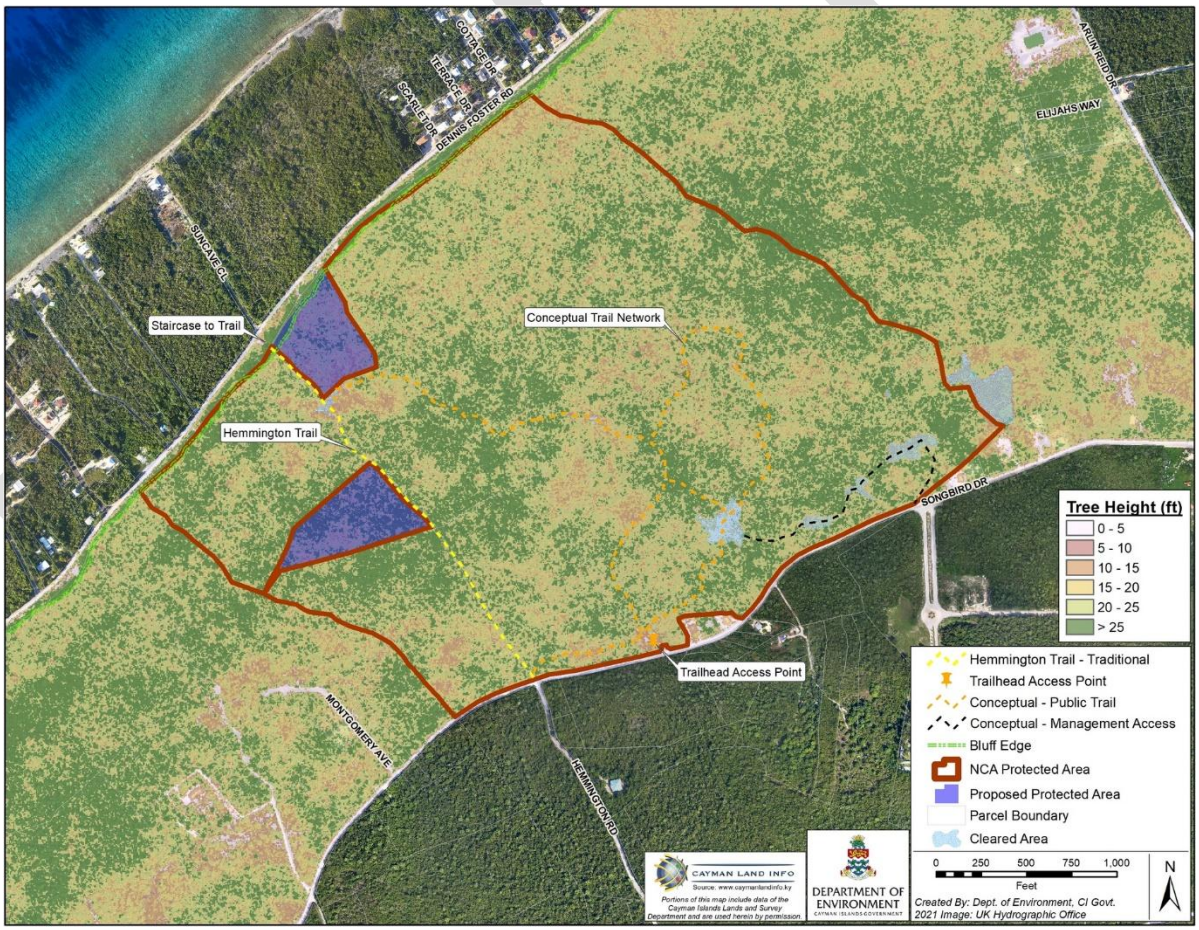
9.4. Biodiversity of the Protected Area

9.4.1. Ecosystems

Undisturbed areas within the National Park include

- xeromorphic mixed evergreen -drought deciduous forest, and
- mixed evergreen- drought deciduous shrubland with succulents, occurring in a complex mosaic.

Much of the shrubland likely results from the history of variable site-specific storm damage to mature forest, so the habitat mosaic is constantly changing with major hurricane events and gradual periods of recovery.



Map 3: Tree canopy height showing the complex patterns of low shrubland and taller forest communities

The xeromorphic mixed evergreen - drought deciduous forest is a *Bursera simaruba - Pilosocereus jamaicensis – Agave caymanensis* community. The main tree canopy ranges from 15ft to 35ft, with occasional Yellow Mastic trees (*Sideroxylon foetidissimum*) emerging far above the canopy.

The mixed evergreen – drought deciduous shrubland with succulents is an *Agave caymanensis – Pilosocereus jamaicensis – Heterosavia erythroxyloides* community, floristically related to the forest it is intermingled with, but distinguished by the abundance of Wild Cocoplum (*Heterosavia erythroxyloides*). Emergent trees are comparatively small, apart from Silver Thatch palms (*Coccothrinax proctorii*). The shrubland canopy is generally 6 – 12ft with emergent trees and shrubs up to 16-20ft. Approximately 25% of the tree and shrub cover is drought-deciduous.

Very localized areas of red mold soil terrain are scattered throughout the National Park. These have almost without exception been the focus of traditional farming activity, at various times dating back to the earliest days of human settlement on Cayman Brac. Areas which ceased to be under cultivation longest ago are now revegetating with native trees and shrubs. Areas more recently left fallow have been colonized by invasive plants which arrived more recently, notably the shrub *Tecoma stans*, known in Cayman as “Shamrock”. Surviving fruit trees such as Mango and Naseberry are still found in these areas. Trails that must once have connected many of these areas have been disused for so long that no sign of them remains.

Approximately 25 acres within the National Park shows evidence of past agriculture, accounting for just under 13% of the total area under protection at this time.

9.4.2. Flora

The following table of 82 vascular plant species were recorded in the National Park during surveys conducted by DOE’s Terrestrial Resources Unit in 2019, and in the biodiversity survey site CB11 sampled in 1998. Species in bold are endemic (unique) to the Cayman Islands. Those marked with an asterisk are alien species. This list should not be taken as complete: undoubtedly many more plant species will be observed in this area over time.

Family	Species	Common name
Apocynaceae	Plumeria obtusa	Wild Jasmine
Apodanthaceae	Pilostyles blanchetii	
Arecaceae	**Coccothrinax proctorii**	Silver thatch
Asparagaceae	**Agave caymanensis**	Corato
Asteraceae	Bidens pilosa var. radiata*	Spanish Needle
Bignoniaceae	Tabebuia heterophylla	Whitewood
	Tecoma stans*	Shamrock
Bromeliaceae	Tillandsia balbisiana	
	Tillandsia festucoides	
	Tillandsia flexuosa	
	Tillandsia utriculata	
Burseraceae	Bursera simaruba	Red Birch
Cactaceae	Pilosocereus jamaicensis	Dildo Cactus
Canellaceae	Canella winterana	Pepper Cinnamon
Capparaceae	Cynophalla flexuosa	Raw Bones
	Quadrella cynophallophora	Headache bush
Celastraceae	Gyminda latifolia	
	Monteverdia buxifolia	Bastard Chelamella
	Schaefferia frutescens	Yellow Wood
Clusiaceae	Clusia flava	Balsam
	Clusia rosea	
Convolvulaceae	Jacquemontia havanensis	
Cordiaceae	Cordia gerascanthus	Spanish Elm
Cyperaceae	Scleria lithosperma	
Ehretiaceae	Bourreria velutina	Parrot Berry
Erythroxylaceae	Erythroxylum areolatum	Smokewood
	Erythroxylum rotundifolium	Rat Wood
Euphorbiaceae	Adelia ricinella	Wild Lime
	Argythamnia proctorii	Cayman Silverbush
	Croton glabellus	Basket Hoop
	Croton linearis	Rosemary
	Gymnanthes lucida	Crab Bush
Fabaceae	Abrus precatorius*	John Crow Bead
	Bauhinia divaricata	Bullhoof
	Desmodium incanum*	Chick Weed
	Leucaena leucocephala*	Wild Tamarind
Heliotropiaceae	Myriopus volubilis	Aunt Eliza bush
Lamiaceae	Petitia domingensis	Fiddlewood
Lauraceae	Damburneya coriacea	Sweetwood
Malvaceae	Malvaviscus arboreus	Mahoe
Meliaceae	Trichilia glabra	Bastard Mahogany
Menispermaceae	Cissampelos pareira	Quacori

Moraceae	Ficus aurea	Wild Fig
	Maclura tinctoria	Fustic
Myrtaceae	Eugenia axillaris	Wild Strawberry
	Myrcia chytraculia var. pauciflora	Bastard Strawberry
	Myrcianthes fragrans	Cherry
Nyctaginaceae	Guapira discolor	Cabbage Tree
Oleaceae	**Chionanthus caymanensis**	Ironwood
Orchidaceae	Eulophia maculata*	Monk Orchid
	Myrmecophila thomsoniana var. minor	Banana Orchid, Brac variety
Passifloraceae	Passiflora suberosa	Wild Pumpkin
Phyllanthaceae	Chascotheca neopeltandra	
	Heterosavia erythroxyloides	Wild Coco-plum
	Phyllanthus angustifolius	Duppy Bush
	Phyllanthus nutans	
Poaceae	Lasiacis divaricata	Bamboo, Draw Water
	Paspalum spp.	
Polygalacaea	Badiera penaea	
Polypodiaceae	Pleopeltis polypodioides	Resurrection Fern
Rhamnaceae	Colubrina cubensis	Cajon
Rubiaceae	Chiococca alba	Snow Berry
	Exostema caribaeum	Bastard ironwood
	Guettarda elliptica	Picklewood
	Randia aculeata	Lancewood
Rutaceae	Amyris elemifera	Candlewood, Torchwood
	Zanthoxylum spinosum	Shake Hand
Salicaceae	Casearia laetioides	Jeremiah Bush
Sapindaceae	Allophylus cominia	Christmas Berry
	Cardiospermum corindum	
	Exothea paniculata	Wild Ginep
	Hypelate trifoliata	Pompero
Santalaceae	Phoradendron quadrangulare	Scorn-the-Ground
Sapotaceae	Manilkara zapota*	Neeseberry, Sapodilla
	Sideroxylon foetidissimum	Yellow Mastic
	Sideroxylon salicifolium	Wild Sapodilla, White Bullet
Solanaceae	Cestrum diurnum	
Verbenaceae	Citharexylum spinosum	White fiddlewood
Verbenaceae	Lantana involucrata	Bitter Sage
	Lantana x bahamensis	Wild Sage
Vitaceae	Cissus trifoliata	Grape Ivy
Zamiaceae	Zamia integrifolia	Bull Rush

9.4.3. Fauna

No systematic surveys of the fauna specifically of Hemmington Forest National Park have been carried out to date. However, knowledge of the fauna of Cayman Brac's bluff more generally is a guide to the species almost certain to occur in the National Park, permanently or occasionally.

The avifauna of Cayman Brac's dry forests and shrublands is well documented by Bradley P.E. (2000, 2013): the native species that breed in Cayman Brac's bluff forests and shrublands are in the following table. Again, bold type indicates birds that are endemic to the Cayman Islands at the species or sub-species level.

Family	Species	Common Name
Columbidae	Patagioenas leucocephala	White-crowned Pigeon
	Zenaida asiatica	White-winged Dove
	Zenaida aurita	Zenaida Dove
	Columbina passerina	Common Ground Dove
	Amazona leucocephala hesterna	Cayman Brac Parrot
Cuculidae	Coccyzus minor	Mangrove Cuckoo
	Crotophaga ani	Smooth-billed Ani
Tytonidae	Tyto alba	Barn Owl
Strigidae	Asio flammeus	Short-eared Owl
Tyrannidae	**Elaenia martinica caymanensis**	Caribbean Elaenia
	Tyrannus caudifasciatus caymanensis	Loggerhead Kingbird
Turdidae	**Turdus plumbeus coryi**	Red-legged Thrush
	Mimus polyglottus	Northern Mockingbird
Vireonidae	**Vireo crassirostris alleni**	Thick-billed Vireo
Parulidae	**Setophaga vitellina crawfordi**	Vitelline Warbler
Thraupidae	**Coereba flaveola sharpei**	Bananaquit
Icteridae	**Quiscalus niger bangsi**	Greater Antillean Grackle

In addition to these breeding birds, a diverse array of migrant bird species passes through or resides seasonally in Cayman Brac and occurs in the habitats present in the National Park.

Reptiles of Cayman Brac known in, or likely to occur in the National Park are listed below. Note that although the lizard *Anolis maynardi* is endemic to Little Cayman, its appearance on Cayman Brac is recent and may (based on its initial colonization location and pattern of spread) have been human mediated. It is therefore considered to be possibly alien (though apparently not harmful) in the Protected Area.

Family	Species	Common Name
Iguanidae	**Cyclura nubila caymanensis**	Sister Islands Rock Iguana
Diploglossidae	**Celestus maculatus**	Galliwasp
Colubridae	**Cubophis fuscicauda**	Cayman Brac Racer
Dactyloidae	**Anolis luteosignifer**	Brown Anole
Dactyloidae	**Anolis maynardi*?**	Little Cayman Green Anole
Sphaerodactylidae	Aristelliger praesignis	Wood Slave

Alien invasive vertebrate species certain to be present and causing environmental degradation within the National Park are the Domestic Cat, *Felis catus*; Domestic junglefowl, *Gallus gallus domesticus*; and the Black Rat, *Rattus rattus.* Green Iguanas (*Iguana iguana*) have not been observed to date in the National Park, but may well be present and otherwise are highly likely to invade.

9.5. Research and Monitoring prior to this Management Plan

The vegetation communities present in the National Park were described as part of a Cayman Islands wide survey and classification study by Burton (2008). This involved satellite image interpretation and ground-truthing at stratified random sample locations throughout primary and old growth habitats on all three of the Cayman Islands. One ground truthing sample (CB11) was recorded within the current protected area extent.

The DOE's Terrestrial Resources Unit surveys the Cayman Brac Parrot population at two-year intervals, monitoring fixed points throughout the island. Two of these monitoring stations fall within the National Park, with four more close to the Park's boundaries. The survey generates a population estimate for the whole island and gives an indication of the parrot population distribution, and its trend over time. The survey also records a suite of other forest birds in the same way and for the same purposes.

In 2019 the DOE's Terrestrial Resources Unit tabulated plant species, terrain and notable features sampled along a series of transects evenly distributed throughout the National Park. This data was used to refine a habitat map to inform management planning work. The field data was combined with government's aerial photography series over past years, LIDAR imagery, and DoE's habitat classification layers.

9.6. Cultural and Socio-Economic Values of the Protected Area

9.6.1. Community and Stakeholder Use

Some small-scale agricultural activity is occurring in privately-owned adjacent parcels bordering Songbird Drive: clear boundary delineation will be necessary here to ensure the activity does not accidentally extend into the National Park. Within the Park the only current community use is for recreation, using the traditional Hemmington Road footpath (see below).

9.6.2. Paleontological Sites

The possibility exists that as-yet undiscovered caves and other underground features may be present in the protected area: these often hold sub-fossil remains of extinct species, which are of paleontological interest. There are no known archaeological sites.

9.6.3. Recreation and Tourism Use

The “Hemmington Road” traditional path has been in use as a nature tourism and recreational asset for many years. It is currently maintained by District Administration, whose staff periodically clear vegetation from the path, and maintain the wooden staircase which climbs the northern bluff face. This staircase and associated interpretive signage were installed as part of a locally funded project to enhance nature tourism sites throughout the Sister Islands.

9.6.4. Education Use

There is currently very little use of the existing trail by school and youth groups. The highly uneven terrain, seasonal overgrowth of the trail, and intense heat during the summer months are identified deterrents at this time.

The traditional Hemmington Road footpath, showing a section of its uneven rock terrain

9.7. References

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