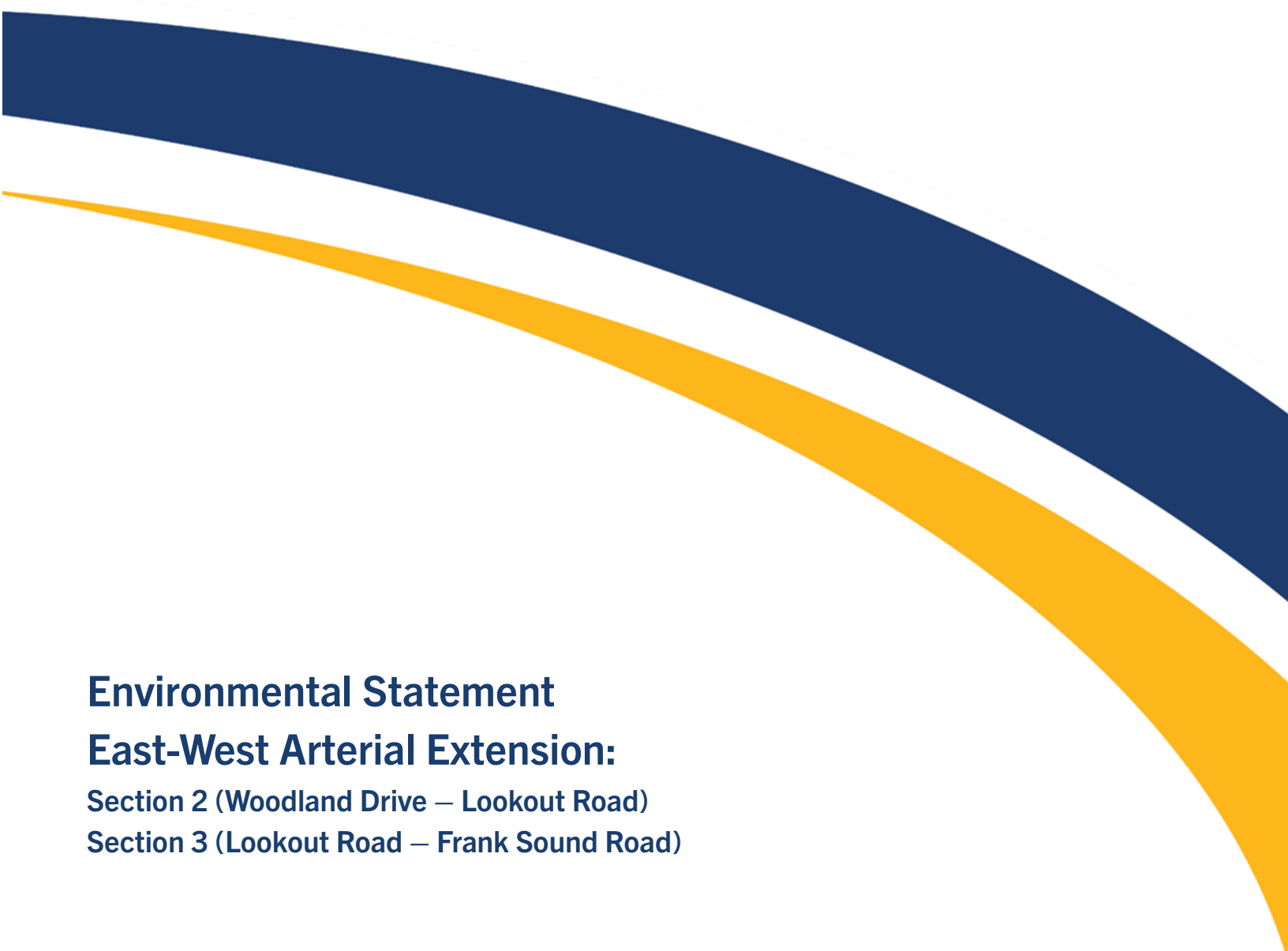


Appendix E, Attachment G – Cultural & Natural Heritage – Assessment of Alternatives



Environmental Statement
East-West Arterial Extension:
Section 2 (Woodland Drive – Lookout Road)
Section 3 (Lookout Road – Frank Sound Road)



Cultural and Natural Heritage FINAL

Assessment of Alternatives Grand Cayman East-West Arterial Extension



January 23, 2024

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List of Terms

CMW	Central Mangrove Wetland
DEH	Department of Environmental Health
DoE	Department of Environment
EIA	Environmental Impact Assessment
IEMA	Institute of Environmental Management and Assessment
IFC	International Finance Corporation
NCA	National Conservation Act
NEA	National Ecosystem Assessment
NRA	National Roads Authority
NT	National Trust
PS	Performance Standard
ToR	Terms of Reference
WebTAG	UK Department for Transport “Transport Analysis Guidance”

1 Introduction

The East-West Arterial (EWA) Extension Environmental Impact Assessment (EIA) is proposed to evaluate an alternative east-west travel route on Grand Cayman. The Terms of Reference (ToR) for the proposed EWA Extension EIA was finalized on April 4, 2023. Since then, five Build alternatives (B1, B2, B3, B4, and C1), in addition to the No-Build scenario, were developed and assessed as part of the Longlist Alternatives Evaluation. A separate Longlist Evaluation Document has been prepared to document this analysis.

As a result of the Longlist Alternatives Evaluation, four Build alternatives (B1, B2, B3, and B4) and the No-Build scenario were advanced to the shortlist evaluation. This report focuses on the assessment of cultural and natural heritage resources for these shortlisted alternatives. Information from this report will be incorporated within the Shortlist Alternatives Evaluation Document and Environmental Statement.

2 Shortlist Evaluation

Grand Cayman is home to numerous cultural and natural heritage resources. These features include resources that are protected by legislation and sites that are of cultural, historical, archaeological, and architectural interest at the local and/or national level. Please refer to Section 4.6 of the Final ToR for additional information regarding the Cultural and Natural Heritage assessment.

The Assessment of Alternatives specifically concentrates on analysing direct impacts since these impacts can be more accurately assessed and quantified based on the project's level of design. The potential for possible indirect and cumulative effects has been discussed where applicable; however, since these impacts are less defined due to numerous variables outside of the project's design process, they have only been noted and qualitatively described. Further evaluation of indirect and cumulative effects will occur as part of the analyses which will be carried out for the Preferred Alternative.

To avoid double-counting, elements such as ecosystem services are not considered in this stage of the assessment, but they are discussed in the Terrestrial Ecology Assessment of Alternatives.

The Shortlist of Alternatives includes the No-Build scenario and four Build Alternatives (B1, B2, B3, and B4) as depicted in **Figure 1**. As shown in **Figure 1**, the four Build Alternatives all share the same common section beginning at the western terminus, near Woodland Drive, and continuing east to near Lookout Road. They also share the same common improvements to the local roadway network referred to as the Will T Connector. Additional details describing the Shortlist of Alternatives including full descriptions of each alternative along with typical design sections can be found in the Shortlist Evaluation Document.

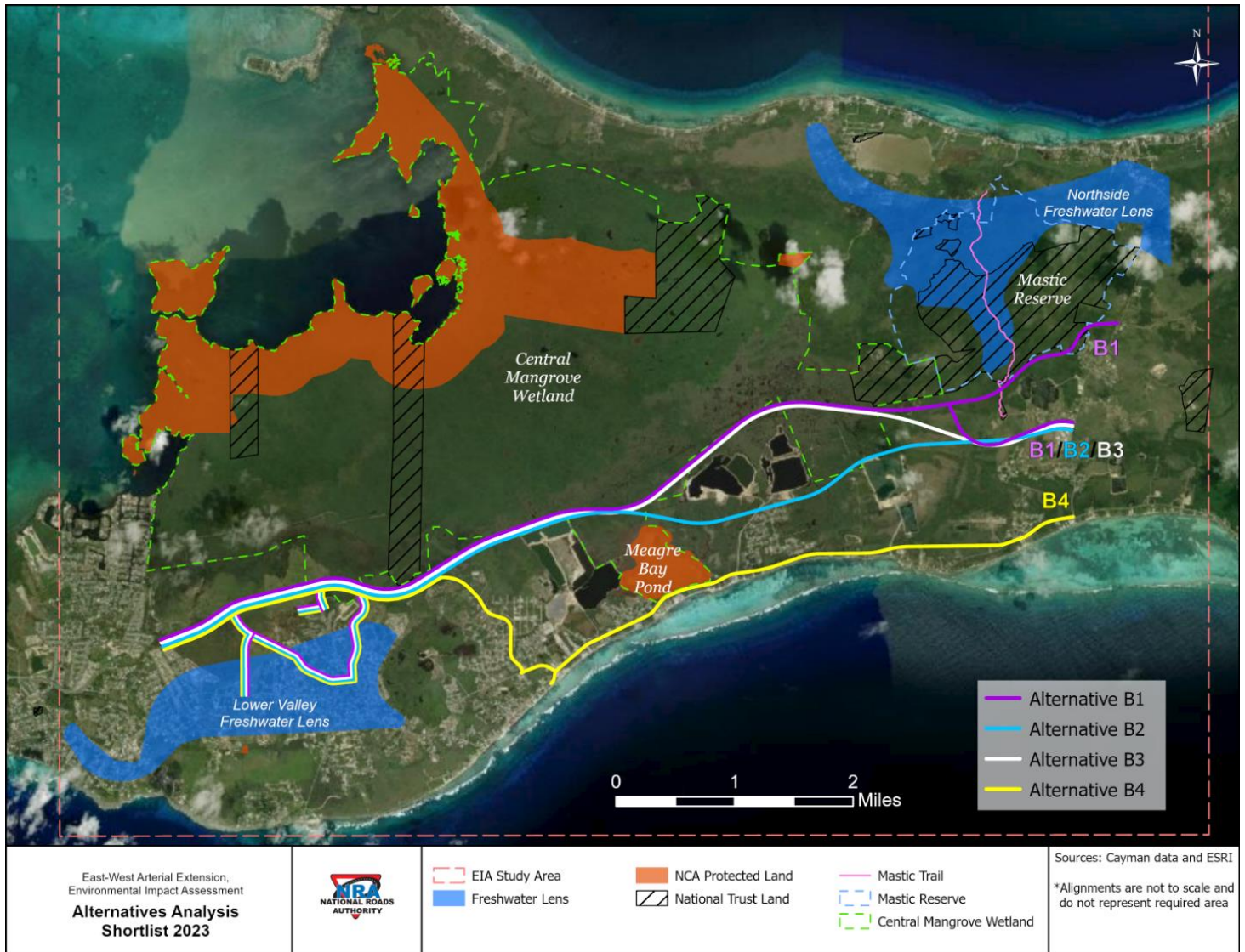


Figure 1: Shortlist of Build Alternatives

3 Baseline Conditions

3.1 Data Sources Evaluated

3.1.1 Desktop Review

A desktop review of cultural and natural heritage sites was completed to identify the sites that may be impacted by the Shortlist of Alternatives. Resources for desktop review included:

- Lands protected under the National Conservation Act (NCA) of 2013 (*.shp shapefile provided by the Cayman Islands Department of Environment (DoE) in November of 2022).
- Lands owned by the Cayman Islands National Trust (NT) (*.shp shapefile provided by DoE in November of 2022).
- Central Mangrove Wetland (CMW) (*.shp shapefile provided by DoE on July 19, 2023).
- Mastic Reserve and Mastic Trail (*.shp shapefile provided by DoE on July 19, 2023).

- List of parcels and inalienability status of National Trust lands (provided by NT on July 24, 2023).
- Cemeteries (*.shp shapefile provided by Cayman Islands National Roads Authority (NRA) on July 31, 2023).
- Heritage Register (obtained from NT web database in July of 2023).
- NT draft document: “Historic Built Heritage Policy Recommendations” (provided by NT during on-island meeting on July 26, 2023; Attachment A).

3.1.2 Stakeholder Consultation

A kick-off meeting was held with the DoE and NT to discuss Terrestrial Ecology and Cultural and Natural Heritage on July 19th, 2023. The project study team provided an overview of the project goals and objectives, discussed data requests for the DoE and NT, collected project information from the agencies, and presented study methodology proposed for the project. Regarding Cultural and Natural Heritage, the NT discussed the lands that are Trust property, how the National Trust Law (2010 Revision) outlines the process of declaring these properties inalienable, and the process under the same law of alienating currently inalienable properties. The NT also presented their concerns surrounding direct primary habitat impacts, habitat fragmentation, induced development, and wildlife roadkill. For unavoidable impacts that would result from the project, the NT proposed conserving additional primary habitat as a possible mitigation measure. Based on the resources identified for potential direct impacts, the NT and DoE were noted as the applicable stakeholders to consult at this stage of the project. Please see **Attachment A** for meeting minutes.

Another meeting between the project study team and the NT took place on July 26th, 2023. Topics discussed included NT-owned parcels of natural land, current entries to the Heritage Register and future updates, the historic importance of the Mastic Trail, and the historic overlay zones. The NT shared its draft “Historic Build Heritage Policy Recommendations” document with the project study team. Please see **Attachment A** for the draft “Historic Build Heritage Policy Recommendations” document.

3.1.3 Field Visit

A field verification of identified cultural and natural heritage sites took place from Monday, July 24th through Thursday, July 27th, 2023. Sites visited throughout the study area included:

- Heritage Register listings
- Cemeteries
- Meagre Bay Pond
- Portions of the CMW
- The Mastic Trail
- Other cultural facilities including public parks and places of worship.

Go-Pro camera footage of the areas throughout the study area was also collected as part of the field effort.

3.2 Central Mangrove Wetland

The CMW is an 8,655-acre ecosystem hydrologically connected to Little Sound. Three species of mangrove (red, black, and white) dominate the system. This wetland provides habitat for several native birds, including the Grand Cayman Parrot. The CMW may potentially meet the criteria for designation as a Ramsar Site according to local environmental organizations, though there are no current plans to submit it for consideration. The Ramsar Convention on Wetlands is the sole international mechanism with a focus on protecting globally important wetlands; the Convention on Biological Diversity also allows for protection. Ramsar sites are known for containing rare, representative, or unique wetland types or for their importance in conserving biological diversity.

Within the CMW, 1,500 acres receive legal protection under the NCA; much of this buffers Little Sound in north-central Grand Cayman (**Figure 2**). The NCA allows the Cabinet to designate portions of Grand Cayman’s terrestrial or marine environments as protected areas. Meagre Bay Pond is also NCA protected land. To create a CMW Reserve, the NT has been purchasing acreage in the CMW (**Figure 2**). To date, the NT owns 1,032 acres of CMW (parcel data provided by NT).



Figure 2: CMW full extent per DoE shapefile, including NCA protected areas and NT-owned parcels.

Source: DoE, Esri

3.3 Mastic Reserve

The Mastic Reserve, a 1,329-acre ecosystem¹, is classified as “forest and woodland” by the Cayman National Biodiversity Action Plan of 2009. This ecosystem type has cultural importance for the Cayman Islands: it houses several species that have contributed to the development and the identity of the Cayman Islands, including the national bird (Cayman Parrot), the national tree (Silver Thatch Palm), the national flower (Banana Orchid), and endemic species like the black

¹ Calculated geospatially with shapefile data provided by DOE.

mastic tree and the white-crowned pigeon. It also offers cultural importance for local and visiting naturalists as it boasts some of the most unique habitat on Grand Cayman.

To date, the NT owns 46 parcels of Mastic Reserve (**Figure 3**). This amounts to 845 acres of land protected under the NT Act (except parcel 11 in block 54A, of which the Trust has 25% ownership, according to parcel ownership data provided by NT).

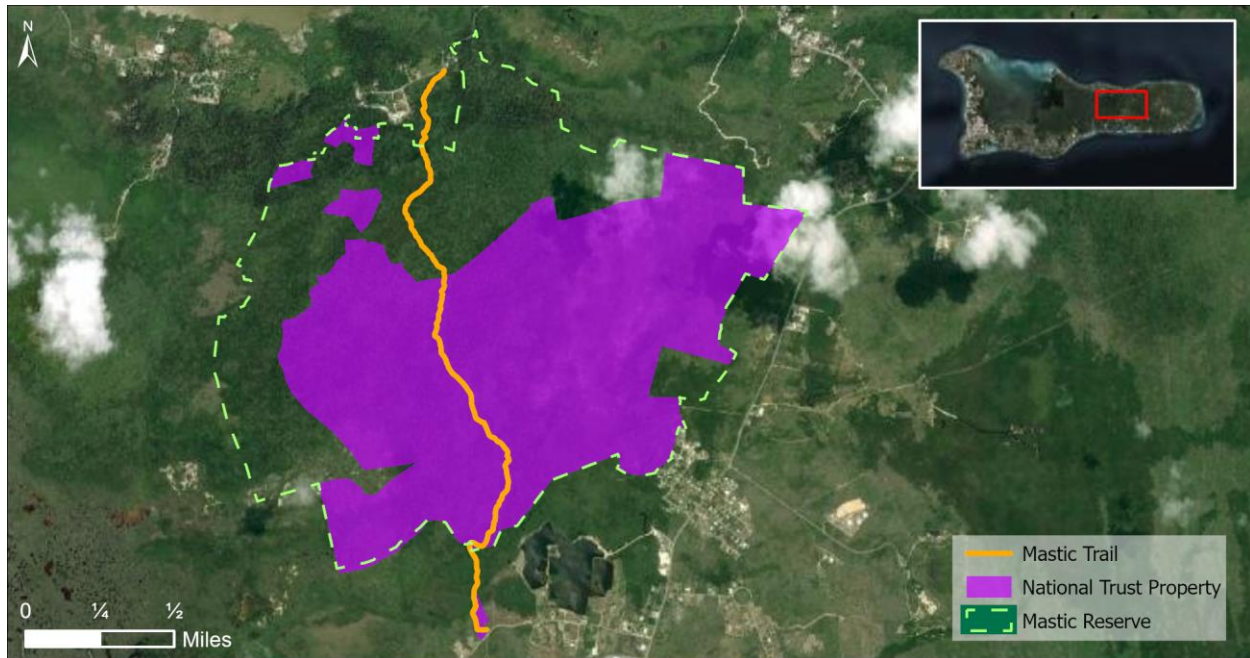


Figure 3: The Mastic Reserve, the Mastic Trail, and National Trust-owned parcels.

Source: DoE, Esri

3.4 Mastic Trail

The Mastic Trail is a 2.3-mile hiking trail that traverses north to south through the Mastic Reserve (**Figure 3**). The NT reports that the Mastic Trail’s history goes back further than a century, when the trail served as a major walking trail that modern roads have since supplanted. In 1994, the Rotary Club located the original trail and removed forest overgrowth to restore it; in 1995, the trail was officially dedicated and opened to the public. Since the trail is within the public right of way, it is protected by the Public Lands Law (2020 Revision).

The Mastic Trail offers visitors a look into some of the oldest habitat on Grand Cayman and a view of culturally important species like the Banana Orchid (**Figure 4**), and guided tours of the trail can be booked via the NT. The trail is a popular hiking destination for residents and visitors to the Cayman Islands and has received write-ups in travel journals including Frommer’s and U.S. News Travel. The Mastic trail received an estimated 1,772 visitors in 2015 (Childs et al., 2015).



Figure 4: An Endemic Banana Orchid (*Myrmecophila thomsonia*)

Source: seen on the Mastic Trail during July 2023 field visit.

3.5 Meagre Bay Pond

Located in Bodden Town near the southern coast, Meagre Bay Pond is one of Grand Cayman’s oldest protected areas (**Figure 5**). In 1976, the pond and the 300-foot-wide band of mangroves around it received protection as an Animal Sanctuary. In 2013, Meagre Bay Pond received designation as a protected area under the NCA. The pond occupies one Crown-owned land parcel. Some of the surrounding wetland in adjacent parcels is also owned by the Crown. Other surrounding wetland area (approximately 76 acres) is privately owned and makes up portions of adjacent parcels.



Figure 5: Meagre Bay Pond

Source: photo from field visit July 2023

The southern limit of the protected area is Bodden Town Road. To the north are several quarries and the CMW. Meagre Bay Pond has a seasonal hydrologic connection to the CMW. In addition, Meagre Bay Pond may potentially meet the criteria necessary to be listed as a Ramsar Site

according to local environmental organizations, though no plans exist to submit it for consideration.

On February 15th, 2022, the DoE’s “Protected Area Management Plan for Meagre Bay Pond” was approved by the Cabinet under section 10(7) of the NCA. Part of this Management Plan focuses on allowing access to this natural heritage resource so that the public can experience the natural landscape and the numerous bird species of Meagre Bay Pond. The Management Plan also outlines constructing a small boardwalk and viewing platform (i.e., for no more than 12 persons at one time) to facilitate the experience of bird watchers and naturalists, and to provide educational opportunities for school groups. A boat launching point is planned for kayaking (i.e., possible during high water times), however the Management Plan emphasizes a limited amount of boating activity, meaning large-scale commercial operations would not be permitted.

3.6 Cemeteries

The Cayman Islands Department of Environmental Health (DEH) is responsible for managing public cemeteries, which includes creating cemetery capacity reports, overseeing vault construction, and other projects. The DEH also monitors private cemeteries. The Public Health Act (2021 Revision) regulates the DEH’s management of cemeteries. Cemeteries provide cultural and natural heritage as sacred spaces, urban green spaces, and objects of community history (Sallay *et al.*, 2023).

Bodden Town Cemetery

Bodden Town Cemetery (Block 43D, Parcel 147) is located southeast of Bodden Town Road, across from the Bodden Town Bypass intersection, with a boundary adjacent to Bodden Town Road (**Figures 6 and 7**). According to cemetery parcel data provided by the NRA, this cemetery is Crown-owned and is designated “closed.” Google Earth aerial imagery from March 3rd, 2023 shows most of this cemetery is full of grave sites (**Figure 6**).



Figure 6: Bodden Town Cemetery aerial view

Source: Google Earth Pro, Imagery Date 6/3/2023



Figure 7: Bodden Town Cemetery view from road

Source: still image from July 2023 GoPro video

Bodden Town New Cemetery

In September of 2014, two new cemetery parcels (Block 43D Parcel 8, and Block 43D Parcel 2, both owned by the Crown) opened in Bodden Town a short distance along Bodden Town Road from Bodden Town Cemetery (**Figure 8**). Titled “Bodden Town New Cemetery” in parcel data provided by the NRA, this cemetery land is meant to provide additional burial space in Bodden Town.



Figure 8: Bodden Town New Cemetery aerial view

Source: Google Earth Pro, Imagery Date (6/3/2023)

The northwestern parcel opened with 20 vaults already constructed, and Cayman iNews reported that the new acreage has space for 500 additional vaults.

The northwestern vaults are located away from Bodden Town Road, and the parcel contains a parking lot between the vaults and the road (**Figure 9**). The southeastern parcel is currently marked as “vacant” in the parcel data and is yet undeveloped.



Figure 9: Bodden Town New Cemetery northwest parcel wall view from the road

Source: still image from July 2023 GoPro video)

Watler or Wood Family Cemetery

On the southeastern side of Bodden Town road, less than a mile from Bodden Town Cemetery, is a privately-owned family cemetery, designated in the parcel data as “Watler or Wood Family Cemetery” (**Figure 10**).



Figure 10: Watler or Wood Family Cemetery aerial view

Source: Google Earth Pro (6/3/2023)

The cemetery (Block 43D Parcel 61) is adjacent to Bodden Town road and contains a few above ground vaults which are close to the road (**Figure 10**). Aerial imagery from March 3rd, 2023 (**Figure 10**) shows little development of the parcel farther back from the road.



Figure 11: Watler or Wood Family Cemetery view from the road

Source: still image from July 2023 GoPro video

4 Assessment Methodology

4.1 Laws and Standards

Relevant Cayman Islands laws, United Kingdom (UK) standards/guidelines, and international standards were reviewed to determine the methodology to be used to assess heritage resources. The laws, policies, and standards assessed included:

Cayman Law

- National Trust Act 2010 Revision
- National Conservation Act 2013
 - Species conservation plans
 - Management plans
- Directive for Environmental Impact Assessments (EIA)
- Public Lands Law 2020 Revision
- Development and Planning Act 2021 Revision

Cayman Plans and Frameworks

- National Environmental Policy Framework 2002
- National Biodiversity Action Plan 2009

UK Standards

- UK Greenbook
- UK Department for Transport “Transport Analysis Guidance” (WebTAG)
 - Unit A3 – Environmental Impact Appraisal

International Standards

- International Finance Corporation (IFC) Performance Standards (PS)s on Environmental and Social Sustainability (2012)
 - PS 1, 6, and 8
- World Heritage Resource Manual: Guidance and Toolkit for Impact Assessments
- Institute of Environmental Management and Assessment (IEMA) Principles of Cultural Heritage Impact

4.2 Steps of Analysis

The standards and guidance documents that were assessed to determine the evaluation methodology for Grand Cayman’s Cultural and Natural Heritage resources included policies and standards listed in the ToR and in Section 4.1 of this document. As a result, the following three-step process (**Figure 12**) was developed and undertaken to evaluate cultural and natural heritage resources and the potential impacts of the project on these resources.

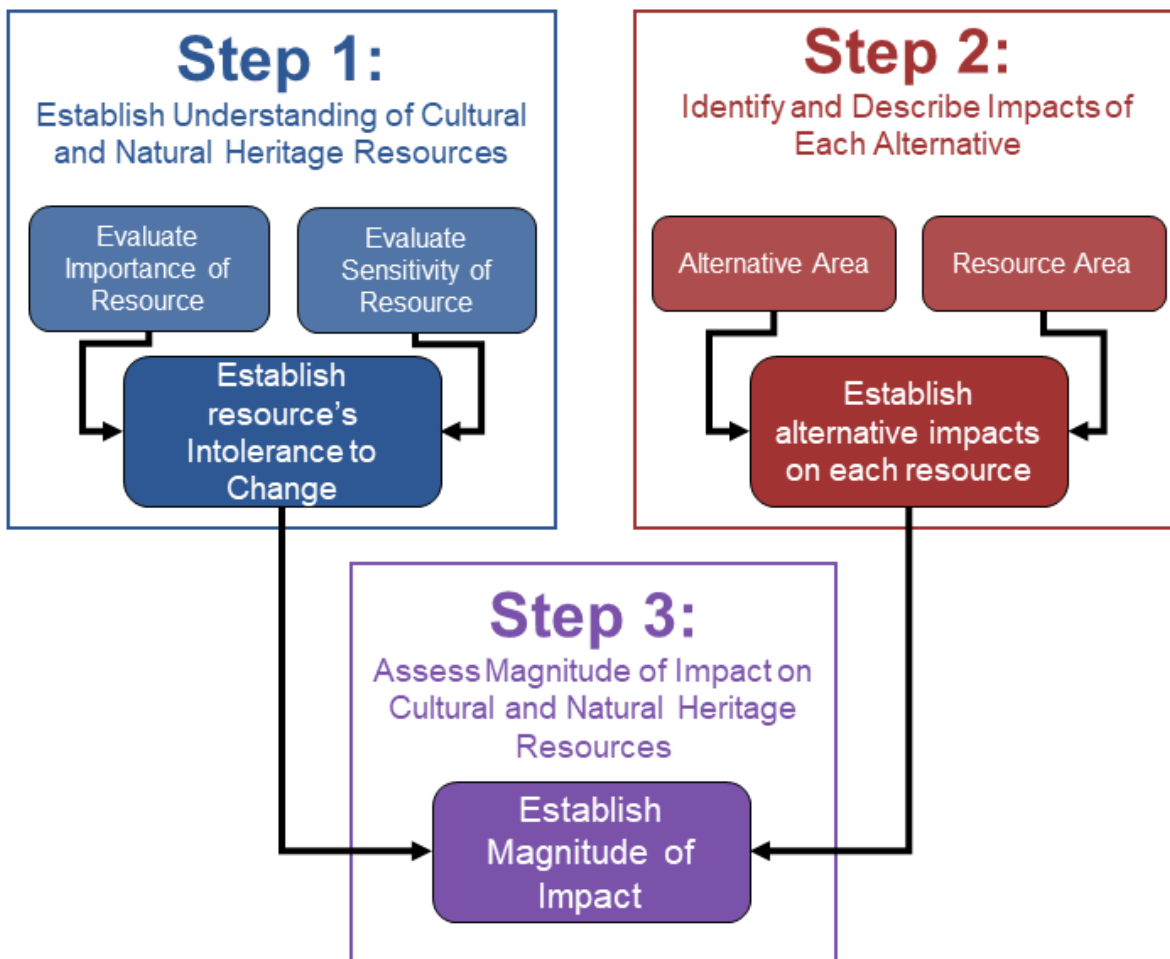


Figure 12: Shortlist Evaluation Steps of Analysis

Step 1 involves establishing an understanding of cultural and natural heritage resources, which encompasses evaluating the Importance of Resource and the Sensitivity of Resource. These two evaluations are combined to understand the resource’s Intolerance to Change.

Step 2 involves quantifying the direct impact each alternative will have on each resource. The impacts are quantified via criteria set forth in WebTAG Unit A3. While indirect impacts are acknowledged, a focus on direct impacts was adopted based on the available level of detail, consistent with WebTAG Unit A3 Section 1.2.

Step 3 combines the results of Step 1 (Intolerance to Change) and Step 2 (Impacts of Alternatives) to determine the Magnitude of Impact each alternative will have on each cultural and natural heritage resource. The Magnitude of Impact is reported on a 1-7 scale established in WebTAG Unit A3.

4.2.1 Step 1: Establish Understanding of Cultural and Natural Heritage Resources

Identifying, describing, and understanding the importance of the cultural and natural heritage resources is a key step in the study process. These elements are outlined in the following sources:

- The “IFC Performance Standards on Environmental and Social Sustainability” document, under Performance Standard 8, discusses cultural heritage objects as being both tangible (*e.g.*, properties or natural features) and intangible (*e.g.*, local knowledge).
- The UK National Ecosystem Assessment (NEA) ascribes cultural services to natural systems and defines these services as “the non-material benefits people obtain from ecosystems” (UK NEA).
- The IEMA’s “Principles of Cultural Heritage Impact,” presents recommendations for understanding these resources including describing the resources, assigning significance to them, and attaching importance.
- The UK’s WebTAG Unit A3 describes the “Historic Environment” as including heritage resources such as parks, public landscapes, and a “sense of identity and place,” and outlines a process for describing and evaluating the sensitivity of these resources (p. 66). WebTAG also describes evaluating “Landscape” and “Biodiversity.” Because several cultural and natural heritage resources on Grand Cayman are natural in nature, all three of these sections were applied to this evaluation.

In addition, Cayman Islands laws, plans, and frameworks offer insight into identifying and describing natural and cultural heritage resources. The National Conservation Act of 2013 (NCA) sets forth a legal precedent for protecting areas of land on the Cayman Islands, including for cultural value. In tandem with the NCA, species conservation plans and ecosystem management plans were consulted. The National Trust Act, 2010 Revision, describes the process by which the NT obtains property of natural and cultural importance, and describes the ‘inalienable’ designation the NT may place on those properties. The National Biodiversity Action Plan of 2009 describes species and ecosystems that contribute to the cultural identity of the islands.

The UK and international standards recommend using qualitative evaluation matrices rather than monetising cultural or natural resources. Specifically, Unit A3 of UK’s WebTAG proposes using a 7-point scale when evaluating heritage resources. The following evaluation matrix (**Table 1**) was developed and utilized for this study. It describes each resource by two metrics: Importance of Resource and Sensitivity of Resource and uses these two metrics to define the resource’s Intolerance to Change.

Table 1: Intolerance to Change Scoring Matrix

Intolerance to Change		Importance of Resource				
		Very High	High	Medium	Low	Very Low
Sensitivity of Resource	Very High	Very High	Very High	High	Medium	Low
	High	Very High	High	Medium	Low	Very Low
	Medium	High	High	Medium	Low	Very Low
	Low	High	Medium	Low	Low	Very Low
	Very Low	Medium	Medium	Low	Very Low	Very Low

Unit A3 of WebTAG (Table 8, p. 77 and Table 9, p. 79) contains a scale for evaluating biodiversity and earth heritage. The Cayman Islands National Conservation Council “Directive for Environmental Impact Assessments” highlights the importance of considering the sensitivity of

the environmental resource as part of the Environmental Statement. These sources were utilized to describe and evaluate the importance of natural heritage resources. For each resource, a score from “Very Low” to “Very High” was determined and assigned.

As referenced, **Tables 2 and 3** below describe the criteria for Importance of Resource scoring and Sensitivity of Resource scoring.

Table 2: Importance of Resource

Importance of Resource	Criteria	Examples
Very High	High importance and rarity, international scale and limited potential for substitution	Internationally designated sites
High	High importance and rarity, national scale, or regional scale with limited potential for substitution	Nationally designated sites Regionally important sites with limited potential for substitution
Medium	High or medium importance and rarity, local or regional scale, and limited potential for substitution	Regionally important sites with potential for substitution Locally designated sites
Low	Low or medium importance and rarity, local scale	Undesignated sites of some local biodiversity and earth heritage interest
Negligible	Very low importance and rarity, local scale	Other sites with little or no local biodiversity and earth heritage interest

Source: WebTAG Unit A3, Table 8, p.77

Table 3: Sensitivity of Resource

Sensitivity of Resource	Criteria	Examples
Very High	High fragility or vulnerability to change, international scale. No potential for substitution	Internationally protected sites. Resource is complex or unique and has no potential for substitution.
High	High fragility or vulnerability to change, national scale. Limited potential for substitution	Nationally protected sites, unique regional sites with high fragility and complexity, and limited or no potential for substitution.
Medium	High or medium fragility or vulnerability to change, local or regional scale	Regional sites with some potential for substitution, exhibits differences between sites
Low	Low or medium fragility or vulnerability to change, local scale	Resource is relatively common and exhibits small variation between sites
Very Low	Very low fragility or vulnerability to change, no rarity, local scale	Resource is common and exhibits little variation between sites

Source: WebTAG Unit A3, section 8.2.5

4.2.2 Step 2: Identify and Describe Impacts of Each Alternative

Step 2 is to evaluate the potential impacts the project is anticipated to have on the cultural and natural heritage resources described in Step 1. Step 2 provides an assessment of the degree of

impact each alternative is likely to have on each cultural and natural heritage resource. Step 2 differentiates between areas of protected status and the effect of the project’s area of influence.

The following sources were consulted in developing the evaluation criteria for Step 2:

- The Cayman Islands Directive for EIAs, published in 2016, outlines an impact prediction scale and information on rating and scaling direct impacts. These scales and ratings standards were used for the evaluation of the project’s potential impacts on cultural and natural heritage resources.
- The NCA and National Biodiversity Action Plan were consulted to evaluate potential impacts and actions relating to conservation and management plans, *e.g.*, the DoE’s “Protected Area Management Plan: Meagre Bay Pond, Grand Cayman” (approved in 2022).
- IFC Performance Standard 6 recommends that any development due to the project must be legally permitted, and that any actions should work in tandem with any management plans set forth by the local government.
- The UK’s WebTAG Unit A3 details a similar stepwise approach to evaluating the impacts on heritage resources. After describing the resource and assessing its significance and its sensitivity to change, Unit A3 delves into evaluating impacts in both magnitude and over time, including the “worst-case” scenario. These impacts could be either adverse or beneficial.

Overall, Step 2 evaluates the impacts of the proposed project compared to baseline conditions by quantitatively assessing the direct adverse or beneficial effect the project is likely to have. Major, intermediate, minor, neutral, and positive impacts are assessed based on the direct impacts to the resource (**Table 4**). WebTAG Unit A3’s Table 10 (reproduced with alterations in **Table 4** below) originally applies to biodiversity. It has been adapted in line with WebTAG Unit A3’s “Impacts on the Historic Environment” to create a set of criteria appropriate for cultural and natural heritage sites specific to this project, given that most cultural and natural heritage assets discussed in this appendix are tied to the natural environment.

Table 4: Criteria for Determining Impact

Impact	Criteria
Major negative	The proposal (either on its own or with other proposals) may adversely affect the integrity of the key heritage resource, in terms of the coherence of its structure and function, across its whole area, that enables it to remain for future generations.
Intermediate negative	The key environmental resource’s integrity will not be adversely affected, but the effect on the resource is likely to be significant in terms of its heritage objectives.
Minor negative	Neither of the above apply, but some minor negative impact is evident.
Neutral	No observable impact in either direction.
Positive	Impacts which provide a net gain overall.

Source: WebTAG Unit A3, section 8.2.5, and Table 10, p. 81

4.2.3 Step 3: Assess Magnitude of Impact on Cultural and Natural Heritage Resources

The “Magnitude of Impact” scoring matrix considers both the “Intolerance to Change” described in Step 1 and the impacts evaluated in Step 2 (**Table 5**). The “Magnitude of Impact” scoring matrix was designed to equate the magnitude of each impact to WebTAG Unit A3’s 7-point scale for determining an “Overall Assessment Score.” Therefore, impact magnitudes are reported on a 7-point qualitative scale.

Table 5: Magnitude of Impact Scoring Matrix

Magnitude of impact	Intolerance to Change				
	Very high	High	Medium	Low	Very Low
Major negative	Large adverse	Large adverse	Moderate adverse	Slight adverse	Neutral
Intermediate negative	Large adverse	Large adverse	Moderate adverse	Slight adverse	Neutral
Minor negative	Slight adverse	Slight adverse	Slight adverse	Slight adverse	Neutral
Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
Positive	Large beneficial	Large beneficial	Moderate beneficial	Slight beneficial	Neutral

Source: WebTAG Unit A3, Table 11, p. 83

Unit A3’s 7-point scale allows the results of the cultural and natural heritage assessment to be reported in the Appraisal Summary Table for the Shortlist Alternatives Evaluation. **Table 6** defines how the 7-point scale is applied to the impacts of projects on heritage resources.

Table 6: Definitions of Assessment Scores

Score	Definition
Large beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • Provide potential, through removal, relocation or substantial mitigation of very damaging or discordant existing impacts (direct or indirect) on the historic environment, for very significant or extensive restoration or enhancement of characteristic features or their setting • Make a major contribution to government policies for the protection or enhancement of the historic environment • Remove or successfully mitigate existing visual intrusion, such that the integrity, understanding and sense of place of a highly valued area, a group of sites or features of national or regional significance is re-established
Moderate beneficial (positive) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • Provide potential, through removal, relocation or mitigation of damaging or discordant existing impacts on the historic environment, for significant restoration of characteristic features or their setting • Contribute to Regional or Local policies for the protection or enhancement of the historic environment • Enhance existing historic landscape/townscape character through beneficial landscaping/mitigation and good design
Slight beneficial (positive) effect	<p>The scheme:</p> <ul style="list-style-type: none"> • Is not in conflict with national, regional or local policies for the protection of the historic environment • Restores or enhances the form, scale, pattern, or sense of place of the historic environmental resource through good design and mitigation • Removes or mitigates visual intrusion (or other indirect impacts) into the context of locally or regionally significant historic environmental features, such that appreciation and understanding of them is improved
Neutral effect	<p>The scheme:</p> <ul style="list-style-type: none"> • Is not in conflict with, and does not contribute to policies for the protection or enhancement of the historic environment • Maintains existing historic character in a landscape/townscape • Has no appreciable impacts, either positive or negative, on any known or potential historic environmental assets • Is a combination of slight positive and negative impacts, on locally significant aspects of the historic environment • Does not result in severance or loss of integrity, context or understanding with in a historic landscape
Slight adverse (negative) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • Be in conflict with local policies for the protection of the local character of the historic environment • Have a detrimental impact on the context of regionally or locally significant assets, such that their integrity is compromised and appreciation and understanding of them is diminished • Damage locally significant historic environmental features for which adequate mitigation can be specified • Not fit well with the form, scale, pattern and character of a historic landscape/townscape area

Score	Definition
Moderate adverse (negative) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • Be out of scale with, or at odds with the scale, pattern or form of the historic environmental resource • Be intrusive in the setting (context), and will adversely affect the appreciation and understanding of the characteristic historic environmental resource • Be in conflict with local or regional policies for the protection of the historic environment • Be damaging to nationally significant historic environmental assets, resulting in loss of features such that their integrity is compromised, but not destroyed, and adequate mitigation has been specified • Be a major direct impact on regionally or locally significant historic environment, resulting in loss of features such that their integrity is substantially compromised, but adequate mitigation can be specified
Large adverse (negative) effect	<p>The scheme would:</p> <ul style="list-style-type: none"> • Have a major direct impact on nationally significant historic environmental assets such that they are lost or their integrity is severely damaged • Have a moderate direct impact on or compromise the wider setting of multiple nationally or regionally significant historic environmental assets, such that the cumulative impact would seriously compromise the integrity of a related group or historic landscape/townscape • Have a major direct impact on regional historic environmental assets, such that their integrity is lost and no adequate mitigation can be specified • Be highly intrusive and would seriously damage the setting of the historic environment, such that its context is seriously compromised and can no longer be appreciated or understood • Be in serious conflict with government policy for the protection of the historic environment, as set out in PPG 15 and PPG 16 • Be strongly at variance with the form, scale and pattern of a historic landscape/townscape

Source: WebTAG Unit A3, Table 7, p. 73

5 Anticipated Project Impacts

5.1 Establish Understanding of Cultural and Natural Heritage Resources

The cultural and natural heritage resources within the footprint of the Shortlist of Alternatives are identified and described in Section 3: Baseline Conditions. To understand how a project may affect these resources, an Intolerance to Change must be established for each resource. Intolerance to Change describes cultural and natural heritage resources on a qualitative scale (**Table 1**). This scale ranks the resource for its relationship with Grand Cayman culture. To avoid double-counting, elements such as ecosystem services are not considered in this section of the evaluation, but they are discussed in the Terrestrial Ecology Assessment of Alternatives. **Table 7** provides a summary of Intolerance to Change scores.

Intolerance to Change: Central Mangrove Wetland

Most of the CMW along North Sound is protected under the 2013 NCA. Additional southwestern and southeastern parcels of the wetland are owned by the NT. The NCA protected areas make up 26% of the total wetland parcels designated in data sent by DoE in November of 2022, and the NT-owned land makes up 12%. Public comments received during the ToR review process indicate that residents of the Cayman Islands see the CMW as a valued natural heritage resource. For these reasons, the CMW is considered a nationally designated site with limited potential for substitution, and therefore it receives a score of **“High”** rating on the Importance of Resource scale.

As the only large mangrove forest on Grand Cayman, the CMW is a unique national site with significant complexity and therefore it receives a **“High”** rating on the Sensitivity of Resource scale.

As a result of the **“High”** rating received for the previous scales, the CMW receives a **“High”** rating on the Intolerance to Change matrix.

Intolerance to Change: Meagre Bay Pond

Meagre Bay Pond is protected under the 2013 NCA. Because of its status as nationally protected under the NCA and the limited potential for substitution, Meagre Bay Pond receives a rating of **“High”** on the Importance of Resource scale.

Various development is adjacent to Meagre Bay Pond. To the north and west of Meagre Bay Pond are several active quarries, and to the south is Bodden Town Road. The Meagre Bay Pond Management Plan describes that, due to planning error, a small amount of subdivision development occurred on portions of parcels that were within protected boundaries. The land-use encroachment into the buffer zone adds fragility to the Meagre Bay Pond area and combined with its status as a destination for birdwatching, Meagre Bay Pond receives a rating of **“High”** on the Sensitivity of Resource scale.

As a result of the **“High”** rating received for the previous scales, Meagre Bay Pond receives a **“High”** rating on the Intolerance to Change matrix.

Intolerance to Change: Mastic Reserve

The Mastic Reserve offers habitat for many culturally important species, including the endangered Blue Iguana and the Grand Cayman Parrot. It is also culturally important as a tourism destination, as the Mastic Reserve sits on Grand Cayman’s highest point and offers visitors views of exposed limestone bedrock along with views of the oldest forest ecosystem on the island. In total, 64% of the Mastic Reserve has been purchased by the NT and it has high importance and rarity on the national scale. For these reasons, the Mastic Reserve receives a rating of “**High**” on the Importance of Resource scale.

The Mastic Reserve is an ecosystem unique to the Cayman Islands. It occupies a small land area that has the highest elevation on the island with no potential for substitution. For these reasons it receives a rating of “**High**” on the Sensitivity of Resource scale.

As a result of the “**High**” rating received for the previous scales the Mastic Reserve receives a “**High**” rating on the Intolerance to Change matrix.

Intolerance to Change: Mastic Trail

The Mastic Trail is a unique local feature on Grand Cayman, offering access to view a variety of the island’s natural resources. This defined trail allows people to view the ecosystem from the path rather than entering the ecosystem, and therefore helps protect the Mastic Reserve as a whole. As reported by the NT, it also contributes to Grand Cayman’s history. The Mastic Trail, like the Mastic Reserve, has high national importance and rarity with limited potential for substitution. Therefore, it receives a rating of “**High**” in the Importance of Resource category.

As with the Mastic Reserve, the Mastic Trail is a unique national feature on Grand Cayman that cannot be replicated or moved. It also represents an important piece of Grand Cayman history. Therefore, in the Sensitivity of Resource category, the Mastic Trail receives a rating of “**High.**”

As a result of the “**High**” rating received for the previous scales the Mastic Trail receives a score of “**High**” on the Intolerance to Change matrix.

Intolerance to Change: Cemeteries

Cemeteries provide local cultural significance as memorials to passed loved ones and as records of some of the people who lived in the area. The cultural significance of a cemetery evolves and strengthens over time as it ages. Cemeteries are human-made features that have some potential for substitution or relocation and have local or regional importance. Therefore, cemeteries in Grand Cayman receive a rating of “**Medium**” in the Importance of Resource category.

Depending on their content, context, and location, cemeteries can be fragile or vulnerable to change. Both the Bodden Town Cemetery and the Watler or Wood Family Cemetery are adjacent to existing main roadways while New Bodden Town Cemetery is set further back from the road. Due to these conditions and the nature of this land use, cemeteries receive a rating of “**Medium**” on the Sensitivity of Resource scale.

As a result of the “Medium” rating received for the previous scales the cemeteries receive a rating of “Medium” on the “Intolerance to Change” matrix.

Table 7: Summary Table of Resources’ Intolerance to Change

Resource	Importance of Resource	Sensitivity of Resource	Intolerance to Change
CMW	High	High	High
Mastic Reserve	High	High	High
Mastic Trail	High	High	High
Meagre Bay Pond	High	High	High
Cemeteries	Medium	Medium	Medium

5.2 Identify and Describe Impacts of Each Alternative

The anticipated direct impacts each of the four shortlist Build alternatives (B1, B2, B3, and B4) and the No-Build would have on cultural and natural heritage resources are quantified and summarized in **Table 8** below. A discussion of direct impacts and potential indirect impacts are included below. Further evaluation of indirect impacts to cultural and natural heritage resources, including impacts of mitigation measures, will occur during evaluation of the Preferred Alternative, per the ToR. An analysis of hydrological connectivity and noise impact for applicable resources can be found in the Hydrology & Drainage and Noise Assessment of Alternatives reports.

5.2.1 No-Build

The No-Build scenario is not anticipated to have a direct impact on the cultural and natural heritage of the CMW, the Mastic Reserve, the Mastic Trail, Meagre Bay Pond, or the cemeteries, therefore, the impact is neutral. Potential indirect impacts, such as noise levels and access, will be evaluated further as part of the Preferred Alternative.

5.2.2 Alternative B1

Central Mangrove Wetland

The NCA protected portion of the CMW (the buffer around Little Sound) is not within the area needed for Alternative B1 and therefore, no impacts are anticipated. The area needed for Alternative B1 is located south of NT-owned parcels of the CMW and no direct impacts are anticipated.

This alternative is anticipated to directly impact approximately 76 acres (31 hectares) of unprotected CMW parcels (**Figure 13**). This represents an estimated <1% of the total CMW (per geospatial data provided by DoE). The size of the resource is part of its cultural heritage value, so any action that alters the resource’s size, even in a small way, has an impact on the integrity of the heritage resource. Alternative B1 will likely have indirect impacts to the cultural heritage of the CMW, including noise levels, visual intrusion, hydrological connectivity, and habitat fragmentation which will be further evaluated as part of the Preferred Alternative. Based on the overall physical size of the CMW (8,655 acres) and location of Alternative B1 near the southern,

developed border, Alternative B1 is expected to have a **minor negative impact** to the cultural and natural heritage of the CMW.

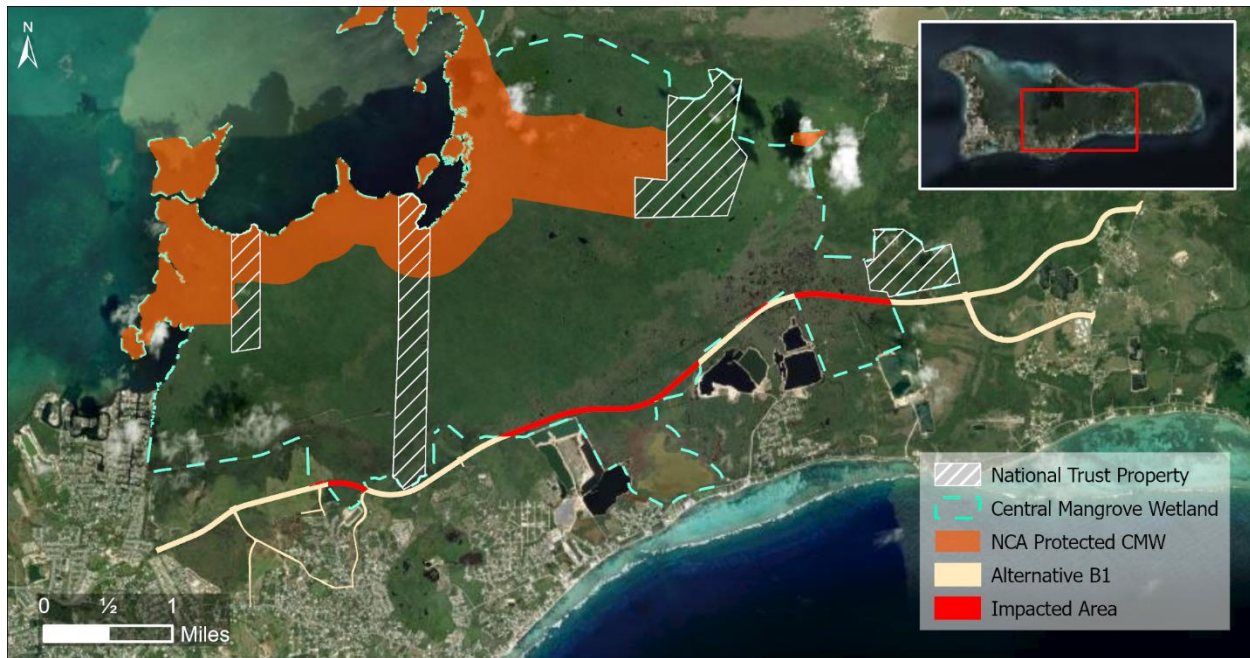


Figure 13: Alternative B1 Central Mangrove Wetland Impacts.

Source: DoE, Esri

Mastic Reserve

Alternative B1 would travel through the edge of several Mastic Reserve parcels owned by the National Trust. This alternative is anticipated to directly impact approximately 8 acres (3 hectares) of these parcels (**Figure 14**). This accounts for approximately <1% of the NT-owned Mastic Reserve parcels (per geospatial data provided by DoE), and an estimated <1% of the total Mastic Reserve Area (per geospatial data provided by DoE). The size of the resource is part of its cultural heritage value, so any action that alters the resource’s size, even in a small way, has an impact on the integrity of the heritage resource. Alternative B1 will likely have indirect impacts to the cultural heritage of the Mastic Reserve, including noise levels, visual intrusion, hydrological connectivity, and habitat fragmentation which will be further evaluated as part of the Preferred Alternative. Public usage of the Mastic Reserve will be addressed with the Mastic Trail since the Trail is the only public access point to the Reserve.

Based on the overall physical size of the Mastic Reserve (1,329 acres) and location of Alternative B1 near the southern, developed border, Alternative B1 is expected to have a **minor negative impact** to the cultural and natural heritage of the Mastic Reserve.

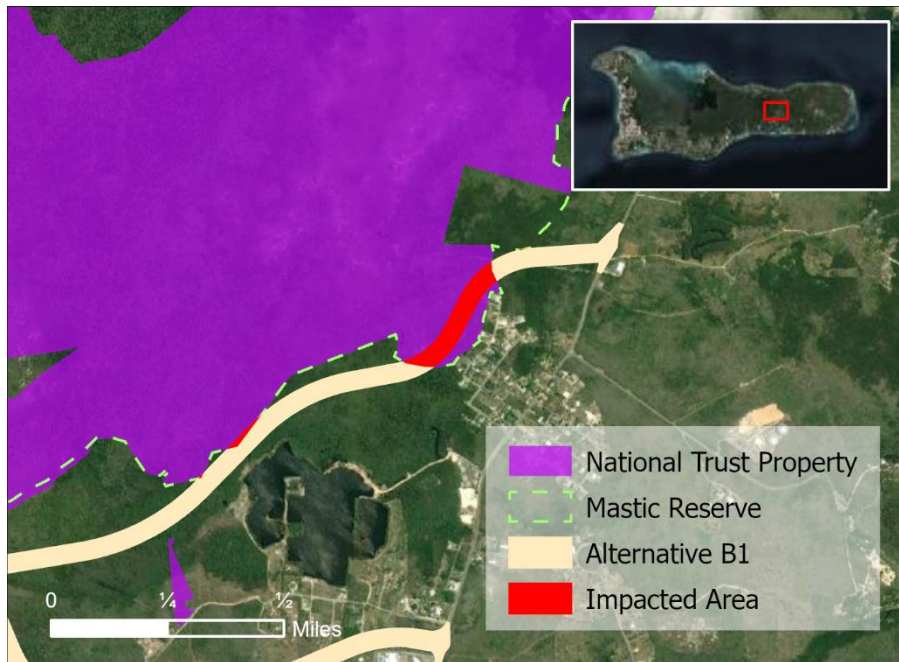


Figure 14: Alternative B1 Mastic Reserve Impacts

Source: DoE, Esri

Mastic Trail

Alternative B1 would bridge approximately 271 linear feet (83 meters) of the southern portion of the Mastic Trail, leaving the trail intact at ground level as an underpass (**Figure 15**). This bridging accounts for <5% of the overall trail length and would not directly impact the trail’s length. Alternative B1 will likely have indirect impacts to the cultural heritage of the Mastic Trail, including noise levels and visual intrusion which will be further evaluated as part of the Preferred Alternative.

Though a disruption to the trail’s length is not anticipated due to the bridging, traversing an underpass while using the trail changes the character of this cultural and natural heritage resource from its original state and creates visual intrusion as described in WebTAG. Therefore, Alternative B1 is expected to have a **minor negative impact** to the cultural and natural heritage of the Mastic Trail.

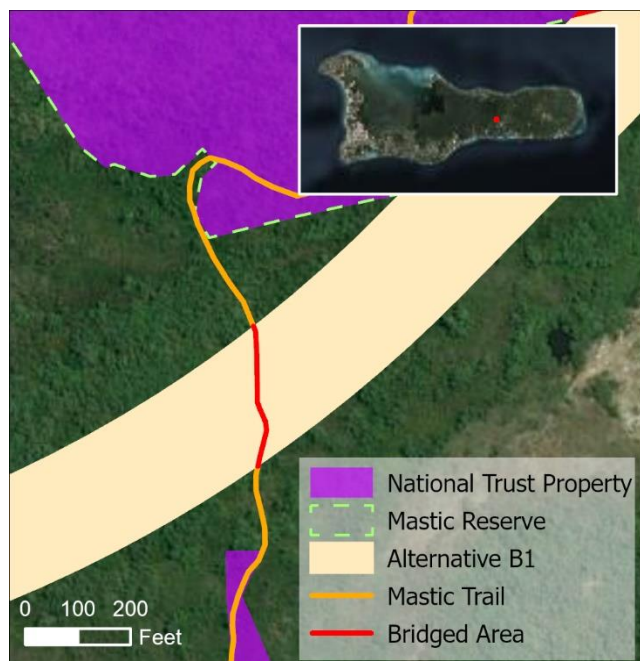


Figure 15: Alternative B1 Mastic Trail Bridging

(Source: DoE, Esri)

Meagre Bay Pond and Cemeteries

Based on its location, Alternative B1 is not anticipated to directly impact the cultural and natural heritage of Meagre Bay Pond or any of the identified cemeteries. Therefore, the impact is **neutral**. Potential indirect impacts, such as noise levels, visual intrusion, hydrological connectivity, and access, will be evaluated further as part of the Preferred Alternative.

5.2.3 Alternative B2

Central Mangrove Wetland

The NCA protected portion of the CMW (the buffer around Little Sound) is not within the area needed for Alternative B2 and therefore, no impacts are anticipated. The area needed for Alternative B2 is located south of NT-owned parcels of the CMW and no direct impacts are anticipated.

This alternative is anticipated to directly impact approximately 57 acres (23 hectares) of unprotected CMW parcels (**Figure 16**). This represents an estimated <1% of the total CMW. The size of the resource is part of its cultural heritage value, so any action that alters the resource's size, even in a small way, has an impact on the integrity of the heritage resource. Alternative B2 will likely have indirect impacts to the cultural heritage of the Central Mangrove Wetland, including noise levels, visual intrusion, hydrological connectivity and habitat fragmentation which will be further evaluated as part of the Preferred Alternative. Based on the overall physical size of the CMW (8,655 acres) and location of Alternatives B2 near the southern, developed border, Alternative B2 is expected to have a **minor negative impact** to the cultural and natural heritage of the CMW.

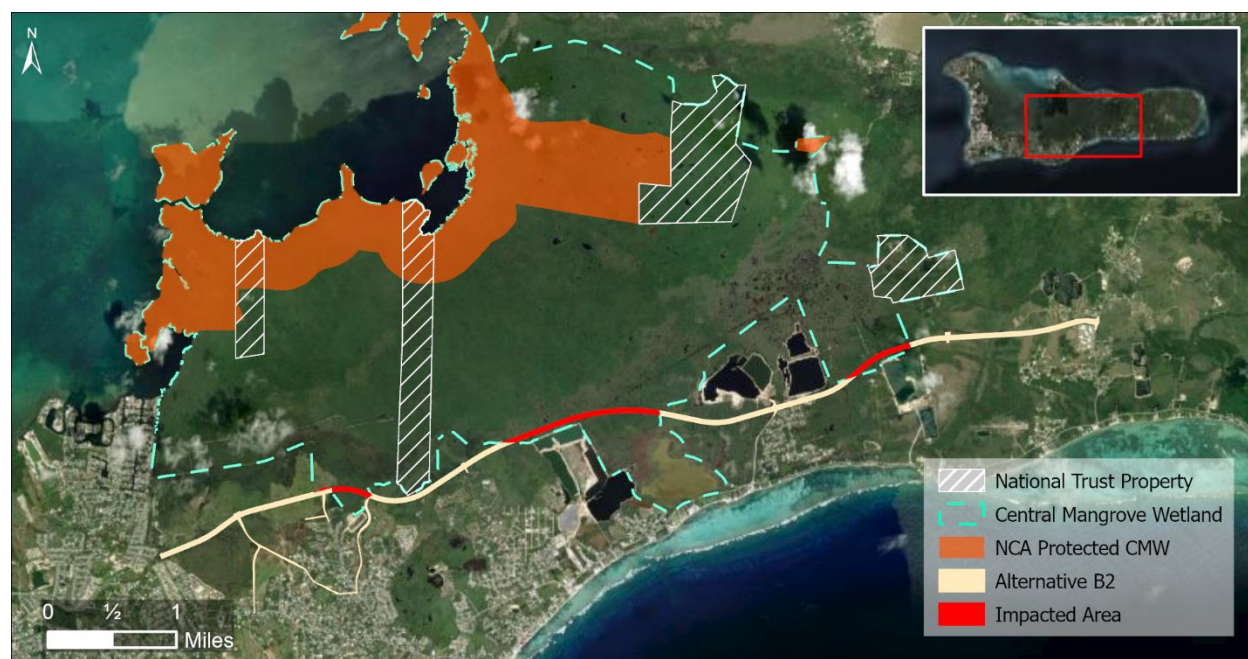


Figure 16: Alternative B2 Central Mangrove Wetland Impacts.

Source: DoE, Esri

Mastic Reserve, Mastic Trail, Meagre Bay Pond, and Cemeteries

Based its location, Alternative B2 is not anticipated to directly impact the cultural and natural heritage of the Mastic Reserve, the Mastic Trail, Meagre Bay Pond, or any of the identified cemeteries. Therefore, the impact is **neutral**. Potential indirect impacts, such as noise levels, visual intrusion, hydrological connectivity, and access, will be evaluated further as part of the Preferred Alternative.

5.2.4 Alternative B3

Central Mangrove Wetland

The NCA protected portion of the CMW (the buffer around Little Sound) is not within the area needed for Alternative B3 and therefore, no impacts are anticipated. The area needed for Alternative B3 is located south of National Trust-owned parcels of the CMW and no direct impacts are anticipated.

This alternative is anticipated to directly impact approximately 76 acres (31 hectares) of unprotected CMW parcels (**Figure 17**). This represents an estimated <1% of the total CMW. The size of the resource is part of its cultural heritage value, so any action that alters the resource’s size, even in a small way, has an impact on the integrity of the heritage resource. Alternative B3 will likely have indirect impacts to the cultural heritage of the Central Mangrove Wetland, including noise levels, visual intrusion, hydrological connectivity, and habitat fragmentation which will be further evaluated as part of the Preferred Alternative. Based on the overall physical size of the CMW (8,655 acres) and location of Alternatives B3 near the southern, developed border, Alternative B3 is expected to have a **minor negative impact** to the CMW.

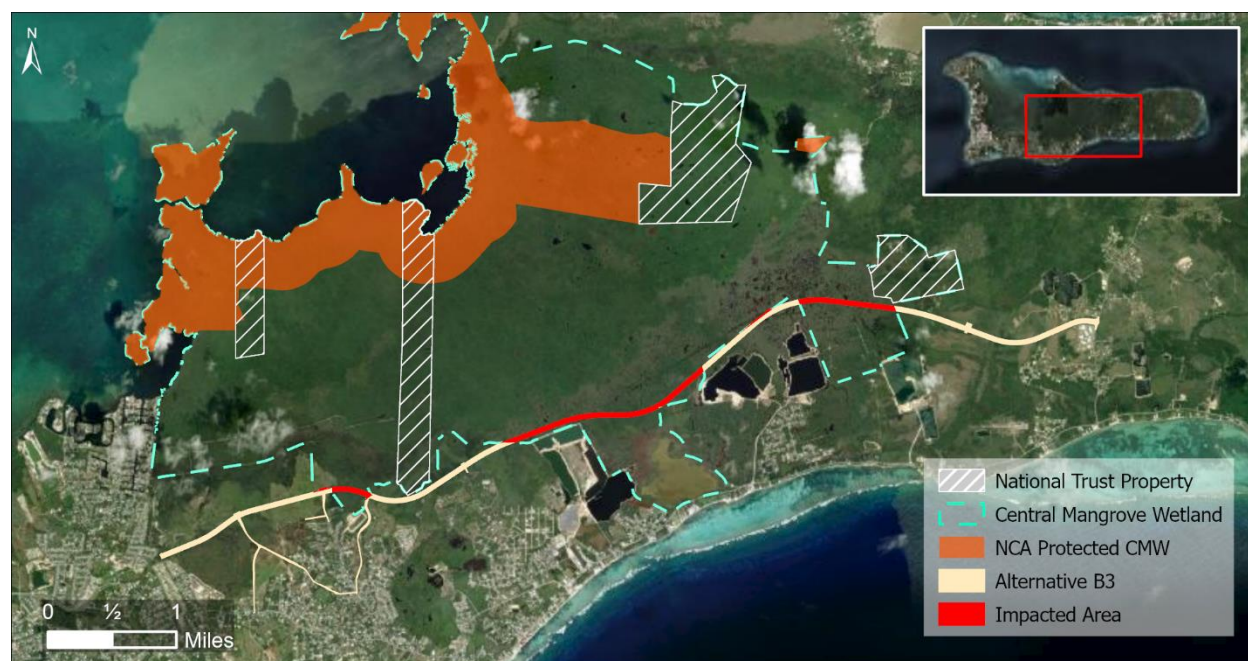


Figure 17: Alternative B3 Central Mangrove Wetland Impacts

Source: DoE, Esri

Mastic Reserve, Mastic Trail, Meagre Bay Pond, and Cemeteries

Based on its location, Alternative B3 is not anticipated to directly impact the cultural and natural heritage of the Mastic Reserve, Mastic Trail, Meagre Bay Pond, or any of the identified cemeteries. Therefore, the impact is **neutral**. Potential indirect impacts, such as noise levels, visual intrusion, hydrological connectivity, and access, will be evaluated further as part of the Preferred Alternative.

5.2.5 Alternative B4

Central Mangrove Wetland

The NCA protected portion of the CMW (the buffer around Little Sound) is not within the direct area needed for Alternative B3. Therefore, no impacts are anticipated. The area needed for Alternative B3 is located south of NT-owned parcels of the CMW and no direct impacts are anticipated. B3 is anticipated to directly impact approximately 10 acres (*4 hectares*) of unprotected CMW parcels (**Figure 18**). This represents an estimated <1% of the total CMW. The size of the resource is part of its cultural heritage value, so any action that alters the resource’s size, even in a small way, has an impact on the integrity of the heritage resource. Alternative B4 will likely have indirect impacts to the cultural heritage of the Central Mangrove Wetland, including noise levels, visual intrusion, hydrological connectivity, and habitat fragmentation which will be further evaluated as part of the Preferred Alternative. Based on the overall physical size of the CMW (8,655 acres) and location of Alternatives B4 near the southern, developed border, Alternative B4 is expected to have a **minor negative impact** to the cultural and natural heritage of the CMW.



Figure 18: Alternative B4 Central Mangrove Wetland Impacts.

Source: DoE, Esri

Mastic Reserve and Mastic Trail

Based on its location, Alternative B4 is not anticipated to directly impact the cultural and natural heritage of the Mastic Reserve, or the Mastic Trail. Potential indirect impacts, such as noise levels, visual intrusion, hydrological connectivity, and access, will be evaluated further as part of the Preferred Alternative in the Environmental Statement.

Meagre Bay Pond

The area needed for Alternative B4 is adjacent to Meagre Bay Pond without encroaching on the Meagre Bay Pond parcel (**Figure 19**). Because the Meagre Bay Pond parcel would not be disturbed by Alternative B4, the alternative is not anticipated to have a direct impact on the cultural and natural heritage of Meagre Bay Pond. Therefore, the impact is **neutral**. Potential indirect impacts, such as noise levels, visual intrusion, hydrological connectivity, and access, will be evaluated further as part of the Preferred Alternative.

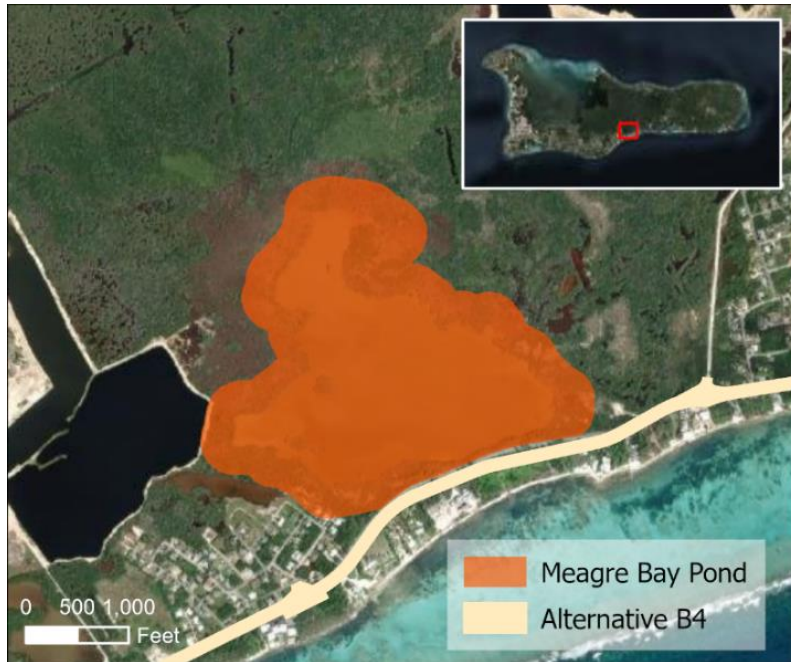


Figure 19: Alternative B4 Impacts to Meagre Bay Pond

Source: DoE, Esri

Cemeteries

The area needed for Alternative B4 is adjacent to both the Bodden Town Cemetery and the Watler or Wood Family Cemetery. The alternative is not anticipated to encroach on either cemetery parcel past the current boundaries of Bodden Town Road. However, Alternative B4 would travel through New Bodden Town Cemetery resulting in impacts to approximately 0.24 acres (0.10 hectares) of New Bodden Town Cemetery (<4% of total cemetery area along Alternative B4) (**Figure 20**). Alternative B4 would likely have indirect impacts to the cultural heritage of the cemeteries, including noise levels, visual intrusion, and access which will be further evaluated as part of the Preferred Alternative. Based on the area of impact and location along an existing roadway network, the anticipated impact to the cultural and natural heritage of the cemeteries it is a **minor negative impact**.

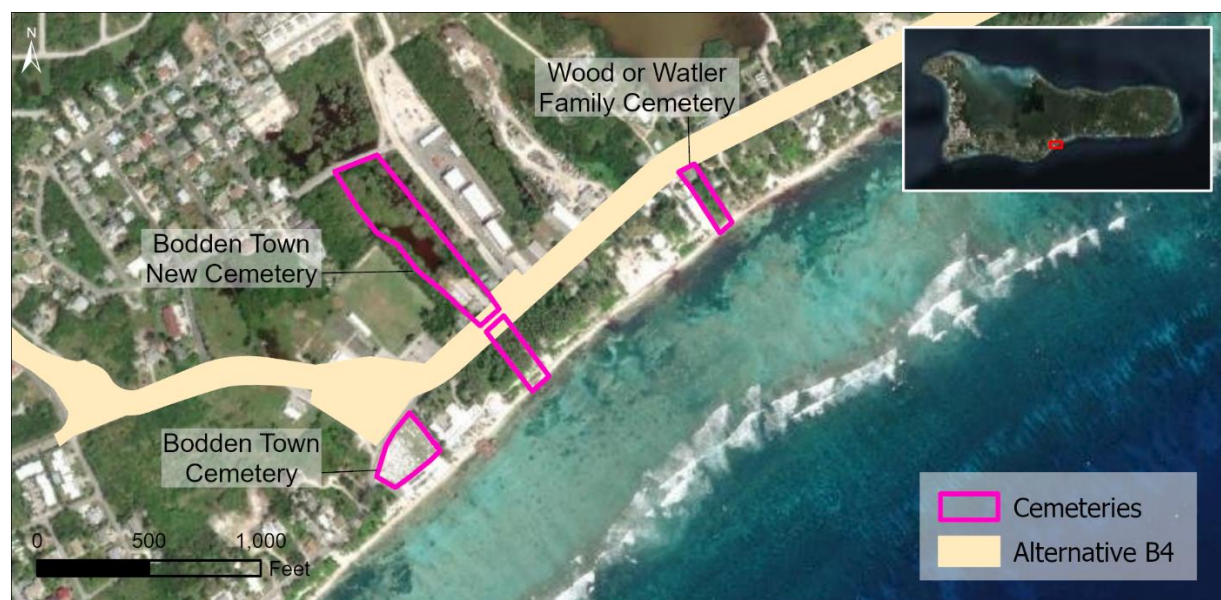


Figure 20: Alternative B4 Impacts to Cemeteries

Source: DoE, Esri

In summary, **Table 8** demonstrates the area that would be directly impacted by each Build Alternative, including the percent of the whole that would be impacted. The level of possible impact is also included. **Table 9** summarizes each of the identified cultural and natural heritage resource’s intolerance to change and the anticipated impact by Alternative.

Table 8: Cultural Resource Directly Impacted by Each Alternative

Resource	Impact Acres				
	No-Build	B1	B2	B3	B4
CMW (8,655 acres)	Neutral	Minor 76 (<1%)	Minor 57 (<1%)	Minor 76 (<1%)	Minor 10 (<1%)
Mastic Reserve (1,329 acres)	Neutral	Minor 8 (<1%)	Neutral	Neutral	Neutral
Mastic Trail (2.3 miles)	Neutral	Minor	Neutral	Neutral	Neutral
Meagre Bay Pond (173 acres)	Neutral	Neutral	Neutral	Neutral	Neutral
Cemeteries (7 acres)	Neutral	Neutral	Neutral	Neutral	Minor 0.24 (<4%)

Table 9: Summary Table of Intolerance to Change and Alternative Impacts

Resource	Intolerance to Change	Anticipated Impact by Alternative				
		No-Build	B1	B2	B3	B4
CMW	High	Neutral	Minor	Minor	Minor	Minor
Mastic Reserve	High	Neutral	Minor	Neutral	Neutral	Neutral
Mastic Trail	High	Neutral	Minor	Neutral	Neutral	Neutral
Meagre Bay Pond	High	Neutral	Neutral	Neutral	Neutral	Neutral
Cemeteries	Medium	Neutral	Neutral	Neutral	Neutral	Minor

5.3 Assess Magnitude of Impact on Cultural and Natural Heritage Resources

To determine the Magnitude of Impact on the resources described in this Cultural and Natural Heritage Assessment (see **Table 5** in Section 4.2.3 of this document), the resource’s Intolerance to Change (Step 1, **Table 1**) was assessed in tandem with the anticipated impact of each alternative to each resource (Step 2, **Table 4**). Each resource received an assessment score per alternative. A cumulative score was then assessed for each alternative (see **Table 8** for a summary of scoring). The Magnitude of Impact assessment scores correspond with the WebTAG Unit A3 7-point qualitative scale. **Table 9** summarizes the estimated direct impact of each alternative on the identified cultural and natural heritage resources, along with the overall qualitative rating per WebTAG Unit A3.

5.3.1 Central Mangrove Wetland

No-Build – The CMW has an Intolerance to Change score of “**High,**” and the No-Build is anticipated to have a **neutral** effect. Therefore, the No-Build’s effect on the CMW receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B1- The CMW has an Intolerance to Change score of “**High,**” and Alternative B1 is anticipated to have a **minor negative** effect. Therefore, Alternative B1’s effect on the CMW receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

Alternative B2- The CMW has an Intolerance to Change score of “**High,**” and Alternative B2 is anticipated to have a **minor negative** effect. Therefore, Alternative B2’s effect on the CMW receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

Alternative B3- The CMW has an Intolerance to Change score of “**High,**” and Alternative B3 is anticipated to have a **minor negative** effect. Therefore, Alternative B3’s effect on the CMW receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

Alternative B4- The CMW has an Intolerance to Change score of “**High,**” and Alternative B4 is anticipated to have a **minor negative** effect. Therefore, Alternative B2’s effect on the CMW receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

5.3.2 Mastic Reserve

No-Build – The Mastic Reserve has an Intolerance to Change score of “**High**,” and the No-Build is anticipated to have a **neutral** effect. Therefore, the No-Build’s effect on the Mastic Reserve receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B1- The Mastic Reserve has an Intolerance to Change score of “**High**” and Alternative B1 is projected to have a **minor negative** effect. Therefore, Alternative B1’s effect on the Mastic Reserve receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

Alternative B2- The Mastic Reserve has an Intolerance to Change score of “**High**” and Alternative B2 is projected to have a **neutral** effect. Therefore, Alternative B2’s effect on the Mastic Reserve receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B3- The Mastic Reserve has an Intolerance to Change score of “**High**” and Alternative B3 is projected to have a **neutral** effect. Therefore, Alternative B3’s effect on the Mastic Reserve receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B4- The Mastic Reserve has an Intolerance to Change score of “**High**” and Alternative B4 is projected to have a **neutral** effect. Therefore, Alternative B4’s effect on the Mastic Reserve receives a score of “**Neutral**” on the Magnitude of Impact scale.

5.3.3 Mastic Trail

No-Build – The Mastic Trail has an Intolerance to Change score of “**High**,” and the No-Build is anticipated to have a **neutral** effect. Therefore, the No-Build’s effect on the Mastic Trail receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B1- The Mastic Trail has an Intolerance to Change score of “**High**” and Alternative B1 is projected to have **minor negative** effect. Therefore, Alternative B1’s effect on the Mastic Trail receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

Alternative B2- The Mastic Trail has an Intolerance to Change score of “**High**” and Alternative B2 is projected to have a **neutral** effect. Therefore, Alternative B2’s effect on the Mastic Trail receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B3- The Mastic Trail has an Intolerance to Change score of “**High**” and Alternative B3 is projected to have a **neutral** effect. Therefore, Alternative B3’s effect on the Mastic Trail receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B4- The Mastic Trail has an Intolerance to Change score of “**High**” and Alternative B4 is projected to have a **neutral** effect. Therefore, Alternative B4’s effect on the Mastic Trail receives a score of “**Neutral**” on the Magnitude of Impact scale.

5.3.4 Meagre Bay Pond

No-Build – Meagre Bay Pond has an Intolerance to Change score of “**High**,” and the No-Build is anticipated to have a **neutral** effect. Therefore, the No-Build’s effect on the Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B1- Meagre Bay Pond has an Intolerance to Change score of “**High**” and Alternative B1 is projected to have a **neutral** effect. Therefore, Alternative B1’s effect on Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B2- Meagre Bay Pond has an Intolerance to Change score of “**High**” and Alternative B2 is projected to have a **neutral** effect. Therefore, Alternative B2’s effect on Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B3- Meagre Bay Pond has an Intolerance to Change score of “**High**” and Alternative B3 is projected to have a **neutral** effect. Therefore, Alternative B3’s effect on Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B4- Meagre Bay Pond has an Intolerance to Change score of “**High**” and Alternative B4 is projected to have a **neutral** effect. Therefore, Alternative B4’s effect on Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

5.3.5 Cemeteries

No-Build – Cemeteries have an Intolerance to Change score of “**Medium,**” and the No-Build is anticipated to have a **neutral** effect. Therefore, the No-Build’s effect on the Meagre Bay Pond receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B1- Cemeteries have an Intolerance to Change score of “**Medium**” and Alternative B1 is projected to have a **neutral** effect. Therefore, Alternative B1’s effect on cemeteries receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B2- Cemeteries have an Intolerance to Change score of “**Medium**” and Alternative B2 is projected to have a **neutral** effect. Therefore, Alternative B2’s effect on cemeteries receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B3- Cemeteries have an Intolerance to Change score of “**Medium**” and Alternative B2 is projected to have a **neutral** effect. Therefore, Alternative B3’s effect on cemeteries receives a score of “**Neutral**” on the Magnitude of Impact scale.

Alternative B4- Cemeteries have an Intolerance to Change score of “**Medium**” and Alternative B4 is projected to have a **minor negative** effect on New Bodden Town Cemetery and a neutral effect on the other cemeteries assessed. Therefore, Alternative B4’s effect on cemeteries receives a score of “**Slight Adverse**” on the Magnitude of Impact scale.

6 Shortlist Evaluation Summary

This Shortlist Evaluation includes a quantitative analysis (**Table 8**), a resource’s intolerance to change analysis (**Table 9**), and a qualitative impacts analysis (**Table 10**) for each of the shortlisted Build alternatives along with the No-Build scenario. A monetary assessment is not applicable for cultural and natural heritage resources. For the unavoidable impacts reported, mitigation measures to aid in offsetting impacts may be possible. Mitigation measures have not been considered as part of this Shortlist Evaluation but will be investigated and identified for the Preferred Alternative and documented in the forthcoming Environmental Statement Document.

Table 9: Summary Table of Qualitative Impacts on Cultural and Natural Resources

Resource	No-Build	B1	B2	B3	B4
CMW	Neutral	Slight Adverse	Slight Adverse	Slight Adverse	Slight Adverse
Mastic Reserve	Neutral	Slight Adverse	Neutral	Neutral	Neutral
Mastic Trail	Neutral	Slight Adverse	Neutral	Neutral	Neutral
Meagre Bay Pond	Neutral	Neutral	Neutral	Neutral	Neutral
Cemeteries	Neutral	Neutral	Neutral	Neutral	Slight Adverse
Overall Qualitative Rating	Neutral	Moderate Adverse	Slight Adverse	Slight Adverse	Slight Adverse

The following summarizes the results of the analysis for the identified cultural and natural heritage resources:

- *No-Build* – The No-Build scenario is anticipated to have no direct impacts on the identified cultural and natural heritage resources (0 acres) resulting in an overall **Neutral** qualitative rating.
- *Alternative B2* – Alternatives B2 would be the least impactful of the four Build alternatives since it is anticipated to have a direct minor impact on one cultural and natural heritage resource: the CMW (57 acres), resulting in an overall **Slight Adverse** impact on cultural and natural heritage resources. While Alternative B2 has the same overall qualitative rating as Alternative B3, Alternative B2 results in less acreage of impact to the CMW in comparison to Alternative B3, with 57 acres and 76 acres, respectively.
- *Alternative B3* – Alternatives B3 would be the second least impactful of the four Build alternatives since it is anticipated to have a direct minor impact on one cultural and natural heritage resource: the CMW (76 acres), resulting in an overall **Slight Adverse** impact on cultural and natural heritage resources.
- *Alternative B4* – Alternative B4 would be the third least impactful of the four Build alternatives since it is anticipated to have direct minor impacts on two cultural and natural heritage resources: the CMW (10 acres) and Cemeteries (0.24 acre) resulting in an overall **Slight Adverse** rating on cultural and natural heritage resources. Although this alternative would impact two resources the level of impact on the CMW would be 10 acres compared to 57 acres with Alternative B2 and 76 acres with Alternative B3; all of which affect less than one percent of the total CMW acreage.

- *Alternative B1* – Alternative B1 would be the most impactful of the four Build alternatives since it is anticipated to have direct minor impacts to the CMW (76 acres) and the Mastic Reserve (8 acres). In addition, Alternative B1 would include a bridge that would carry the new roadway over the Mastic Trail allowing for the continued use of the trail but changing the character of the trail as users pass under the bridge section. Based on these impacts Alternative B1 results in a **Moderate Adverse** rating on the identified cultural and natural heritage resources.

This Cultural and Natural Heritage Assessment is one in a series of Technical Reports that have been prepared for the Shortlist Evaluation. The level of impacts and the identification of the least impactful alternative will differ based on the resource/feature evaluated in each of the Technical Reports. Therefore, the least impactful alternative described in this evaluation summary and in each technical document **does not** move an alternative forward to the Preferred Evaluation nor does it constitute any special weighting or extra consideration in the Shortlist Evaluation Document. The comprehensive analysis of all the resources/features evaluated along with the rationale for the identification of the Preferred Alternative are presented in the Shortlist Evaluation Document.

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Attachment A

Stakeholder Consultation



MEETING MINUTES

Date: July 19, 2023

From: Monica Del Real, WRA

Invitees: WRA, NRA, DoE, National Trust, RES, TYLin

Subject: Kick-off Meeting - Terrestrial & Cultural

Project: Cayman EWA EIA

Agenda Topics:

Introductions:

(Monica – 5 minutes)

- Lindsey Ulizio, WRA – Project Manager
- Monica Del Real, WRA – Environmental Studies Coordinator; Document Lead
- Taylor Sprenkle, WRA – Terrestrial Ecology Lead
- Nick Nies, WRA – Cultural and Natural Heritage Lead
- Justin Freedman, RES – Project Manager – Terrestrial Ecology
- Alexandra Shostak, WRA – Environmental Scientist and GIS Analyst
- Jeffry Marcus, TYLin – Environmental Sciences Group Leader
- Paul Archibald, TYLin – Project Director
- Sara Gutekunst, TYLin – Senior Scientist

- National Roads Authority Participants:
 - Denis Thibeault

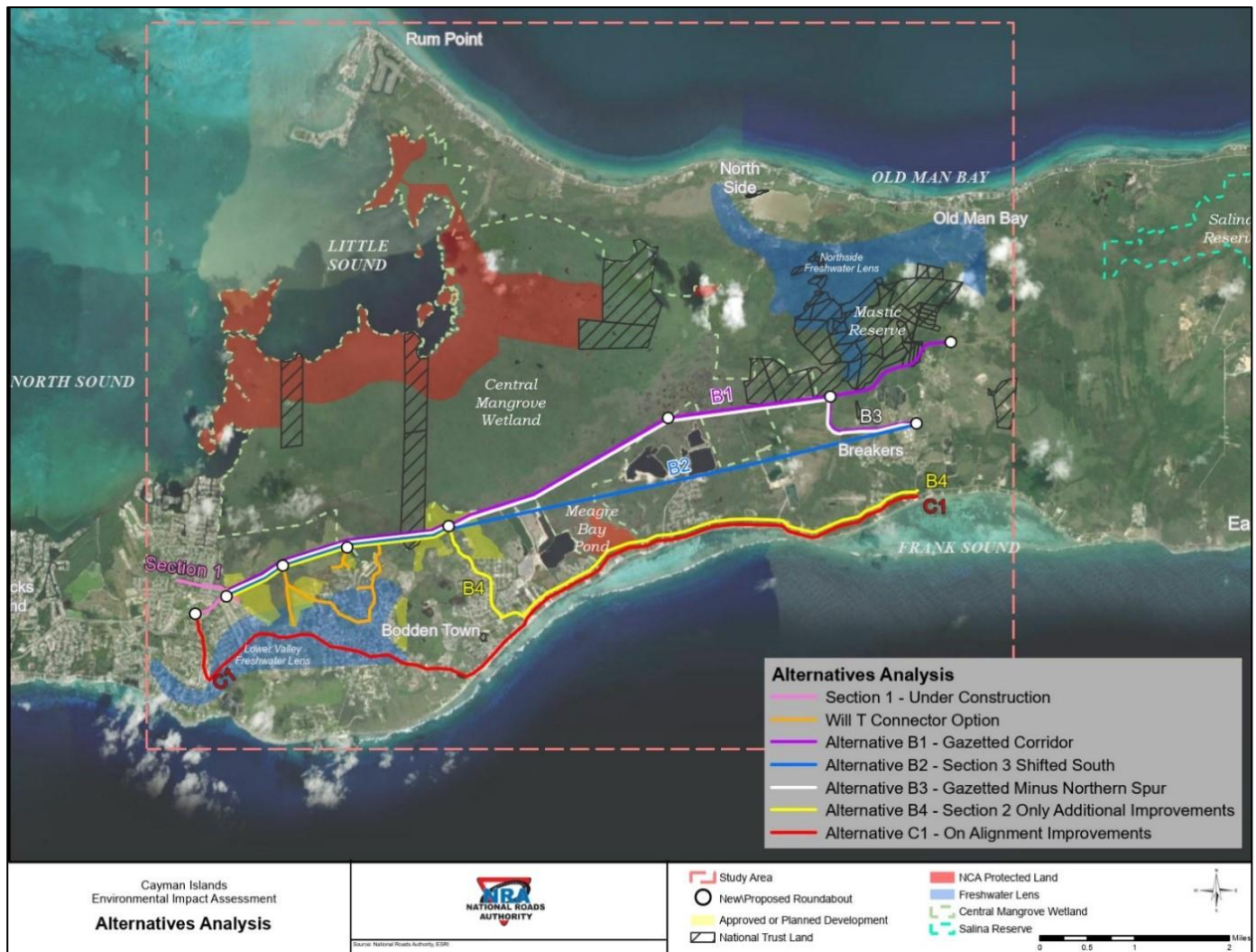
- Department of Environment (DoE) Participants:
 - Gina Ebanks-Petrie – Director
 - Frederic Burton – Manager, Terrestrial Resource Unit
 - Jeremy Olynick – Senior GIS Systems Officer
 - Tim Austin - Deputy Director of Research and Assessment

- National Trust Participants:
 - Frank Roulstone - Executive Director
 - Catherine Childs – Environmental Programmes Manager
 - Andrew “AJ” McGovern - Environmental Officer

Project Overview:

(Monica – 5 minutes)

- WRA is providing engineering and environmental services for the NRA on the East-West Arterial (EWA) Extension Environmental Impact Assessment (EIA).
- The Final Terms of Reference was approved in April 2023.
- In June the EIA was approved to move forward and extends from Woodland Drive to Frank Sound Road.
- Assessing different alternatives
- Map of potential alternatives is below:



Data Requests:

(Taylor – 10 minutes)

- WRA appreciates the large amount of data that has been provided to date
- Can methodology be provided for how the 2018 Landcover Habitat shapefile was produced? How much ground truthing was done?
 - Gina – the rate of change is quite rapid
 - Jeremy – methodology can be provided. Original classification done in 2006. Update with aerial photography run from Land and Survey.
 - Denis – new LiDAR may be flown in August of this year
- Any additional data available?
 - Terrestrial Ecology: Critical species habitats, DoE habitat assessment points
 - Cultural and Natural Heritage: Location of heritage sites
 - Frank – no street addresses on Cayman

Critical Concerns:

(Nick – 10 minutes)

- What are the biggest concerns of the DoE and National Trust?
 - Fred – primary habitat impacts (forest or wetland, etc.); indirect impacts (road kill, habitat fragmentation, infrastructure for development).
 - Parrot nesting habitat; fly low across roads



- Gina – gazetted corridor would bisect Mastic Trail
 - Hydrological connectivity of Mastic Reserve
- Frank – fragmentation, Meagre Bay Pond
 - Hydrological connectivity
 - Will open up parcels for development. Not limited access.
- Cathy – local situations, speed of development
 - Hydrological connectivity, pipes tend to get clogged quickly

General Methodology:**(Taylor – 15 minutes)**

- The initial longlist of alternatives will be evaluated utilizing provided geospatial data, field verification, and critical concerns identified.
- Field verification will be completed for the longlist of alternatives next week
 - Extent of field verification will depend on property access
 - Spot checking of the different habitat communities and qualities
 - Utilizing a combination of UK and US standards as applicable:
 - Uniform Mitigation Assessment Method (UMAM)
 - Biodiversity Metric 3.1 Calculation Tool
- Additional field effort will be completed for the Preferred Alternative and potential mitigation sites.

- DoE – could potentially fly drone footage for the EIA efforts
- Denis – NRA has used Gary Green for drones in the past
- Jeremy – Section 1 and 2 land cover is course. There has been some growth in the previously cleared areas.

Mitigation:**(Justin – 10 minutes)**

- Avoid, minimize, mitigate
- Conservation, Enhancement, and Creation – Risk level increases
- Any properties that the DoE or National Trust have been looking to acquire?
- Any properties that the DoE or National Trust currently own that could be enhanced? (mangrove planting, invasive species removal, etc.)
- Other mitigation ideas (environmental education plaques along Mastic Trail, wildlife crossings, etc.)

- Gina – agencies previously identified “wish list” of protected areas.
 - No compulsory acquisition for protected areas
 - DoE could provide the wish list boundaries
- Fred – Protection of primary habitat. Limited restoration opportunities.
- Frank – National Trust cannot accept payment for land which is degraded
 - “Inalienable”
- Fred – no history of roadway mitigation on the Island.
- Frank – how do we control mitigation for other roads which will connect
- Cathy – the only meaningful mitigation would be protecting primary habitat. Does not see enhancement as meaningful. Does not see environmental education as something that they need. Wildlife crossings should be automatically required.
- Gina – crab impacts with roadway crossing
- Fred – interface of dry and wet land is prime crab habitat
- Jeffry – Fencing is one way to avoid mortality. However is also creates a barrier and fragmentation. Species migration will be important.
- Fred – fresh water turtle crossings

Action Items:

(Monica – 5 minutes)

- Provide any additional geospatial data (critical habitats, cultural sites, etc.)
- Provide additional Natural and Cultural Heritage contacts (Cayman Islands National Museum, Cayman Islands National Archive, etc.)
 - Gina – no other sources needed
- WRA – email the Alternatives Alignments to National Trust so that they can check for build heritage sites
- Jeremy (DoE) – email the methodology for the original 2006 Land Habitat Coverage and “wish-list” of properties for protection



National Trust for the Cayman Islands
HISTORIC BUILT HERITAGE POLICY RECOMMENDATIONS



Overview of Historic Built Heritage

The **National Trust for the Cayman Islands (NTCI)** was established by statute passed by the Parliament (then the Legislative Assembly) on 14th September, 1987. A significant part of its mandated mission is *“the preservation of the historic, natural and maritime heritage of the Islands through the preservation of areas, sites, buildings, structures and objects of historic or cultural significance”*. This is the basis for the NTCI’s efforts to preserve the built heritage of the three Cayman Islands, for present and future generations.

The extracts below from the **Modern Heritage Matters** website provide helpful information as to [What is Built Heritage? « Modern Heritage Matters](#) -

“Our built heritage, as the physical evidence of our cultural development, is one of our most important cultural assets. Built heritage helps us to understand where we have come from and who we are today. It allows us to maintain a link with the past, defining a sense of place and identity for communities, both urban and regional.”

“Built heritage is not only about beautiful buildings and monuments of exceptional value but also includes small modest vernacular buildings that embody other equally important historical, social or even archaeological values rendering them just as significant.”

“The significance of heritage places can change over time as community values evolve. Conservation does not require them to be preserved in their original condition or use, only that

any alteration or development for contemporary use and enjoyment retains its original heritage features. In addition to regular maintenance, conservation may include preservation, restoration, reconstruction, adaptation and interpretation.”

“Balance needs to be achieved. It is essential to conserve significant buildings that promote identity and continuity of place, without impeding development that meets the current needs of communities. It is important to remember that the most significant elements of this modern layer of development will eventually form part of the built heritage of future generations.”

Definition of Cayman’s Built Heritage

Cayman’s built heritage may conveniently be defined by quoting another extract from the **Modern Heritage Matters** website, [What is Heritage? - Heritage Council](#) –

“Our heritage is what we have inherited from the past, to value and enjoy in the present, and to preserve and pass on to future generations.”

However, for the purpose of this paper, built heritage will be defined, but not limited to, any existing structure or building constructed prior to 1950. This would include structures such as forts, house-shaped graves/tombs, monuments, stone walls, step wells as well as houses built in the traditional vernacular Cayman style using local materials such as wattle, daub, and ironwood.

The historical significance of sites and structures would be determined by but not limited to:

- tangible links to important events in Cayman’s history (e.g. Fort George, Pedro St. James),
- links to people or periods of historic significance (e.g. The Mission House, Dr. Roy’s Ironshore; The Eldermire House),
- architectural significance in terms of design and representative of traditional built heritage (wattle and daub/cottage, cabin, bungalow, mansion/upstairs homes in each island),
- houses owned or lived in by persons of significance to the community or because it played a significant role in some important aspect of Caymanian heritage (e.g. the Roland Bodden home in GT which was built by and for the well-known builder of ships, as well as the location of this family’s shipyard; Mr. Arthur’s House, shop and printshop; Capt. Allie’s home and turtle net making under the seagrape trees across the street from the home; homes that form an integral part of historic overlay or heritage preservation overlay zones)

Background

Following the invitation from the Cayman Islands Government for the NTCI to give input and advice for policies to strengthen the preservation of our built heritage, a sub-committee of the Historic Advisory Committee was formed. The sub-committee included the NTCI Director and the Historic Programmes Manager; representatives from the Districts of Bodden Town, Cayman Brac, George Town and West Bay; an architect; and NTCI Council members representing Heritage Preservation and Government. They began by identifying and reviewing the existing legislation found within the National Trust Law and Bye Laws; Regulations or Frameworks for the Planning Department and the Lands and Survey Department (see Appendix A for relevant excerpts).

The existing legislation for heritage preservation identified includes:

1. The NTCI has a legal remit which includes heritage as outlined in the National Trust Act (2010 Revision). This includes the creation of a National Heritage Register. Work began on this

Register in 1992 (paper) and progressed to the creation of a public database in 2006 (Digital). Updating is ongoing every 1-2 years.

2. The 1997 Development Plan has identified two Historic Overlay Zones, one including Bodden Town and Manse Road and a second including Elizabeth Street, Church Street and Boggy Sand Road, all in West Bay. These zones were created from NTCI Heritage Register data.
3. The draft National Planning Framework (PlanCayman) called for the designation of Heritage Preservation Overlays in section 4.3 but the framework has not yet been adopted by Cabinet.

Recommendations

The NTCI requests that the following recommendations are considered and implemented in the shortest time frame possible, recognising the high risk and urgent threat to our historic built heritage.

Recommendation 1: The government should establish a joint entity, which includes the NTCI as well as other bodies with a similar remit, with the purpose of reviewing and strengthening existing laws to identify loopholes and aspects that need to be addressed to further protect Cayman's built heritage. Ultimately this should lead to the creation of a National Heritage Preservation Council (reference may be made to legal framework used to create the National Conservation Council)

The National Heritage Preservation Council should include organisations such as the Cayman Islands National Museum, the Cayman Islands National Gallery, the Tourism and Attractions Board and the Cayman National Cultural Foundation. These organisations are all custodians of historic and cultural assets. It could also include representatives from National Trust District Committees, CIREBA and other government entities.

The National Heritage Preservation Council should undertake the development of a National Built Heritage Preservation Plan which is underpinned by a public education campaign that will lead to the establishment of built heritage protection immediately using existing laws, as well as to the introduction of new legislation within the next 2-3 years maximum.

Based on the advice and recommendations of the National Heritage Preservation Council, the Government should develop a law which protects heritage buildings and streetscapes; similar to Conservation Areas in many countries that maintain special architectural or historic interest, the character and the appearance of an area, while still allowing development in keeping with the area. The law should:

- Protect character and streetscapes in the Historic Overlay Zone,
- Require guidelines for future development in Historic Overlay Zones,
- Give further legal status to the Heritage Register,
- Protect properties on the Heritage Register which could be designated as National Landmarks.

Recommendation 2: Referencing the Heritage Register, the Department of Planning should update and expand the existing Historic Overlay Zones to include, but not necessarily be limited to, South

Church Street, areas of Central George Town, North Church Street, as well as Cayman Brac and Little Cayman.

There are gaps in the existing Historic Overlay Zones and many of the remaining important buildings and streetscapes are not protected. The first undertaking should be a public consultation with owners to educate them and increase their awareness and appreciation of the historic significance of their homes or assets (e.g. stone walls).

The government could also consider, in the medium to long term, incentives for homeowners who chose to maintain and retain historic properties. This can be done through formalised plaques for these sites, grant funding and waiving of stamp duties. A heritage fund can also be established through Government to which a percentage of planning/development fees go to this fund to support incentives, or these funds could go directly to the Historic Preservation Fund launched by the NTCI. This action could be linked to corporate responsibility and ESG (Environmental, Social and Governance).

Other incentives include permissions for owners of historic properties to earn rental income on these properties once they adhere to restriction on structural changes that might impact the character and historic relevance of said property.

Recognising the impact that removal/or relocation of any single structure within an overlay zone has on the integrity of Historic Overlay Zones, the CPA should require the retention and inclusion of said structures into any planned developments in these zones while diligently enforcing the requirement that a new development reflects the historic aesthetic of the zone (see Recommendation #7). Removal or relocation should always be a last resort.

Recommendation 3: The Department of Planning should immediately adopt a policy considering the NTCI as a Section 7 Consultee, and consult with the NTCI on planning applications which involve any structure listed on the NTCI's Heritage Register or within a Historic Overlay Zone.

Section 7 of the Development and Planning Act states,

"The [Central Planning] Authority or [Development Control] Board, as the case may be, shall, to greatest possible extent consistent with the performance of its duties under this Act, consult with departments and agencies of the Government having duties or having aims or objects [sic] related to those of the Authority or Board."

Section 7 is the mechanism used by the Department of Planning to consult with bodies like the National Roads Authority and Water Authority. Although the National Trust would not be considered a department or agency of the Government, Section 4(1) of the National Trust Act states,

“The purposes of the Trust are – (a) the preservation of the historic natural and maritime heritage of the Islands through the preservation of areas, sites, buildings, structures and objects of historic or cultural significance.”

Section 4(2) states,

*“The Trust has the power to carry out the following activities –
(f) the provision of information, advice and assistance to the Government and other appropriate persons or bodies for the furtherance of the purposes of the Trust.”*

Therefore, the NTCI has legal duties and aims, which are related to that of the Central Planning Authority (CPA) and Development Control Board (DCB) and it would be appropriate for the CPA and the DCB to consult with the NTCI under Section 7. At present, the NTCI is not consulted on planning applications unless they are a landowner within a certain radius, however if the NTCI is consulted, it will have an opportunity to make recommendations and be aware of relevant planning applications before a decision is made.

Recommendation 4a¹: The Department of Planning should include as a requirement to consult with NTCI, as part of processing a Demolition Permit, particularly if the structure is on the NTCI’s Heritage Register or within a Historic Overlay Zone.

A Demolition Permit should be required if two or more structural members are to be removed. No planning permission is currently required to demolish a structure. The Department of Planning should be required to consult with NTCI before considering and/or approving the grant of a Demolition Permit for any structure on the Heritage Register or within a Historic Overlay Zone. Consulting with the NTCI would give the NTCI an opportunity to salvage any particular materials from the site, and/or take photos, videos and/or create a written record of the built heritage.

Recommendation 4b: The Department of Planning should require planning permission to demolish a structure on the NTCI’s Heritage Register or within a Historic Overlay Zone.

Currently, no planning permission is required to demolish a structure on the NTCI’s Heritage Register. The planning process allows consultation with other government bodies, an opportunity for objections by neighbours, and an opportunity for democracy in the decisions made by the CPA and DCB. Demolishing a structure on the NTCI’s Heritage Register or within a Historic Overlay Zone should require planning permission because that process will provide more opportunity for input.

Recommendation 5: The Lands and Survey (L&S) Department should include the Heritage Register on Cayman Land Info. L&S should introduce a unique icon which clearly identifies a building or site

¹ Recommendations 4a and 4b are two proposed options to address the demolition of heritage structures without the NTCI being notified.

of historic significance on their maps and which automatically triggers a link to the NTCI Heritage Register as a reference document for buyers or sellers.

Cayman Land Info is the GIS database that is owned and maintained by the Lands and Survey Department. It is heavily relied upon by real estate agents, developers, architects etc., who otherwise work in a 'buyer beware' market. If the Heritage Register were included on Cayman Land Info, it would be better known and more easily accessible by the professional development community. Displaying the location of the properties on the Heritage Register via Cayman Land Info would alert people to the presence of a heritage structure on site before they buy or chose to develop.

Recommendation 6: The Department of Planning should publish the Historic Overlay Zone maps on their website more prominently.

Although the page on legislation references the Historic Overlay Zone, there do not appear to be maps of the location of the Historic Overlay Zones on the planning website. The Zones are provided on Cayman Land Info but that website is behind a paywall and the maps do not appear to be available in pdf or image format for free. The maps of the Historic Overlay Zones should be freely available from Planning.ky without needing to pay for a subscription to Cayman Land Info.

Recommendation 7: The CPA should more stringently apply the rules of the Historic Overlay Zone.

There is a significant level of discretion available to the CPA when making decisions on development within Historic Overlay Zones. The Development and Planning Regulations state,

"16. (1) In an Historic Overlay zone, the Authority shall have a duty to promote and encourage the preservation of historic buildings and conserve their historic architectural heritage.

(2) In considering any application for permission to develop within an Historic Overlay zone, the Authority shall, in its discretion, ensure that the development —

(a) conforms to the traditional workmanship, design, scale, massing, form, materials, decoration, colour and methods of construction of the buildings and the location of windows and doors in them; and

(b) in its setting, reflects the historic pattern of development in the Islands."

The CPA should apply the rules much more stringently and thus control development more tightly, in line not only with the discretion they are afforded under, but in accordance with the historic criteria specified in, the Development and Planning Regulations. The CPA should consult with Advisory District Councils (refer to the CI Constitution Order 2009) as well as the NTCI District Committees on how they want their District or community to 'look', the image they wish to retain, the story they wish to preserve and to communicate to present and future generations, so that informed decisions can be made around heritage sites and streetscapes. This should include evidence of architectural plans to retain and reflect historic aesthetics in any new planned development in these zones.

Timeline & Measures of Success

To facilitate action on these recommendations, the following timeline and measures of success are outlined. Not every recommendation will be actionable immediately, but the ones outlined would demonstrate to the community and stakeholders a willingness to properly develop, monitor and report on policies that effectively protect our national built heritage.

Recommendation	Timeline	Success Indicators	Stakeholders	Notes
Establishment a joint entity	Immediate – 3 months	Establishment of a functioning Council. Launch of public consultation of policy recommendations	As outlined under recommendation 1.	
The NTCI appointed as a Section 7 Consultee	Immediate – 3 months	An NTCI representative appointed to each of the Central Planning Authority and the Development Control Board	Ministry of Planning, Department of Planning, Central Planning Authority, Development Control Board, National Trust for the Cayman Islands	If there is an NTCI representative on the Central Planning Board and Development Board, then this facilitates recommendations 4 and 7.
Heritage Register on Cayman Land Info	Immediate – 6 months	Heritage Register included on the L&S system	Lands & Survey, National Trust for the Cayman Islands, CIREBA, individual buyers or sellers	This can be accomplished either through link to the NTCI Heritage Register online or built into the GIS system.
Publish the Historic Overlay Zone maps	Immediately and on an ongoing basis	Included on the L&S system and Cayman Land Info	Ministry of Planning, Department of Planning, Central Planning Authority, Development Control Board, CIREBA, members of the public, National Trust for the Cayman Islands	

Medium Term				
Update and expand the existing Historic Overlay Zones	6 months – 1 year	Call for public consultation on the current zones and recommendations for additional areas. Updated areas are reflected in the development plan. Adoption of the development plan.	Ministry of Planning, Department of Planning, Central Planning Authority, Development Control Board, CIREBA, members of the public, National Trust for the Cayman Islands	
Drafting and enactment of The National Built Heritage law	2-4 years	Implementation and enforcement of The National Built Heritage law	Ministry of Planning, Department of Planning, Central Planning Authority, Development Control Board, CIREBA, members of the public, National Trust for the Cayman Islands	

Conclusion

The preservation of a nation’s built heritage is a very important aspect of a country’s broader commitment to heritage and culture. Nationally and internationally, it is recognised that preservation of built heritage contributes to building national pride and identity. This process involves (among other steps) identifying, protecting, or enhancing buildings, sites or objects of historical and cultural significance.

As this is done, many benefits occur including:

- A sense of national pride and pride in one’s community can be developed.
- Economic growth based on showcasing the unique character and heritage of individual districts.

Therefore, historic preservation should be viewed as a positive, rather than a negative undertaking, and one from which all interested parties will benefit and thrive.

We appreciate having been afforded this opportunity, as a sub-committee of the Historic Advisory Committee of the NTCI, to provide input and advice for policies to strengthen the preservation of the built heritage of the Cayman Islands. We hope that the Government will find our recommendations of assistance as they move forward to progress the objectives envisaged by proposed enhancement

of the Development and Planning Act and the Development and Planning Regulations. However, we will remain ready and willing to offer further assistance should it be required.

In the meantime, may we reiterate an earlier quote: *“Our heritage is what we have inherited from the past, to value and enjoy in the present, and to preserve and pass on to future generations.”*

Appendix A

1. NT Law, Section 4
2. The Development Plan 1977 (extract 3.11 Historic Overlay Zones)
3. The Development & Planning Regulations (Historic Overlay Zones, 16.1, 2a, 2b)
4. The Lands and Survey maps showing historic overlay zones
5. National Planning Framework 4.3 (Heritage Preservation Overlay)

National Planning Framework 4.3 (Heritage Preservation Overlay)

4.3 Heritage Preservation Overlay (HPO)

The purpose of the Heritage Preservation Overlay (HPO) is to promote and encourage the preservation, acquisition, redevelopment and/or replication of historically significant features, including but not limited to the following:

- Historic sites, areas, and trails;
- Historic buildings and structures;
- Rights-of-way, including access to the sea;
- Ship launching sites;
- Lighthouses;
- Shipwrecks;
- Cemeteries; and
- Archaeological sites.

The overarching goals of the HPO are to;

- Preserve and protect the established historical, architectural, or cultural character of the area;
- Preserve and promote a sense of place by incorporating traditional design and development patterns; and
- Preserve any significant aspect, appearance, vista or view of the area.



Figure 4.4: Historic sites and buildings would be protected with the application of the Heritage Preservation Overlay.

Goal 1:

Preserve and protect the Island's historical heritage sites and structures.

Objective 1: Ensure the long-term protection of the Island's unique historic areas that help define the history of the Island.

Action Items

- Identify areas in Grand Cayman with particular architectural and historic interest where there is a special character and identifiable sense of place.
- Rename the existing Historic Overlay Zone to "Heritage Preservation Overlay" (HPO) to better reflect the intent of protecting not only the historical structures, but also other heritage elements of the Island.
- Modify and expand the scope of the HPO in order to protect the integrity of the Island's heritage sites and structures for future generations.
- Create a description of allowable uses within the zone, acceptable alterations to heritage structures, and acceptable uses on the remainder of subject parcels.
- Identify any views and vistas that should be protected
- Incorporate a heritage review into all development applications within the Heritage Preservation Overlay with input from appropriate agencies such as the National Trust and National Museum.

Objective 2: Ensure the long-term protection of individual historic buildings, sites and properties throughout Grand Cayman.

Action Items

- Expand the application of the Heritage Preservation Overlay, ensuring that it addresses National Trust designated properties, as well as other heritage sites throughout Grand Cayman.
- Identify buildings worthy of preservation due to their historic, architectural, traditional or other interest.
- Identify acceptable alterations and extensions to historic buildings.

2. THE DEVELOPMENT PLANS OF 1977 AND 1997

In the original 1977 Development Plan there is quite literally no reference whatsoever to the built heritage of the Cayman Islands

In the 1997 version of the Development Plan there is the first reference to Historic Overlay Zones which is mentioned in the latter part of the Development priorities.

THE DEVELOPMENT PLAN 1997 FOR THE CAYMAN ISLANDS PLANNING STATEMENT

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Extract:

3.11 HISTORIC OVERLAY ZONE

The purpose of the Historic Overlay Zone is to promote and encourage the perpetuation of historic buildings and structures with the underlying zone remaining in effect. Development will be strictly controlled to conserve the Cayman Islands historical and architectural heritage.

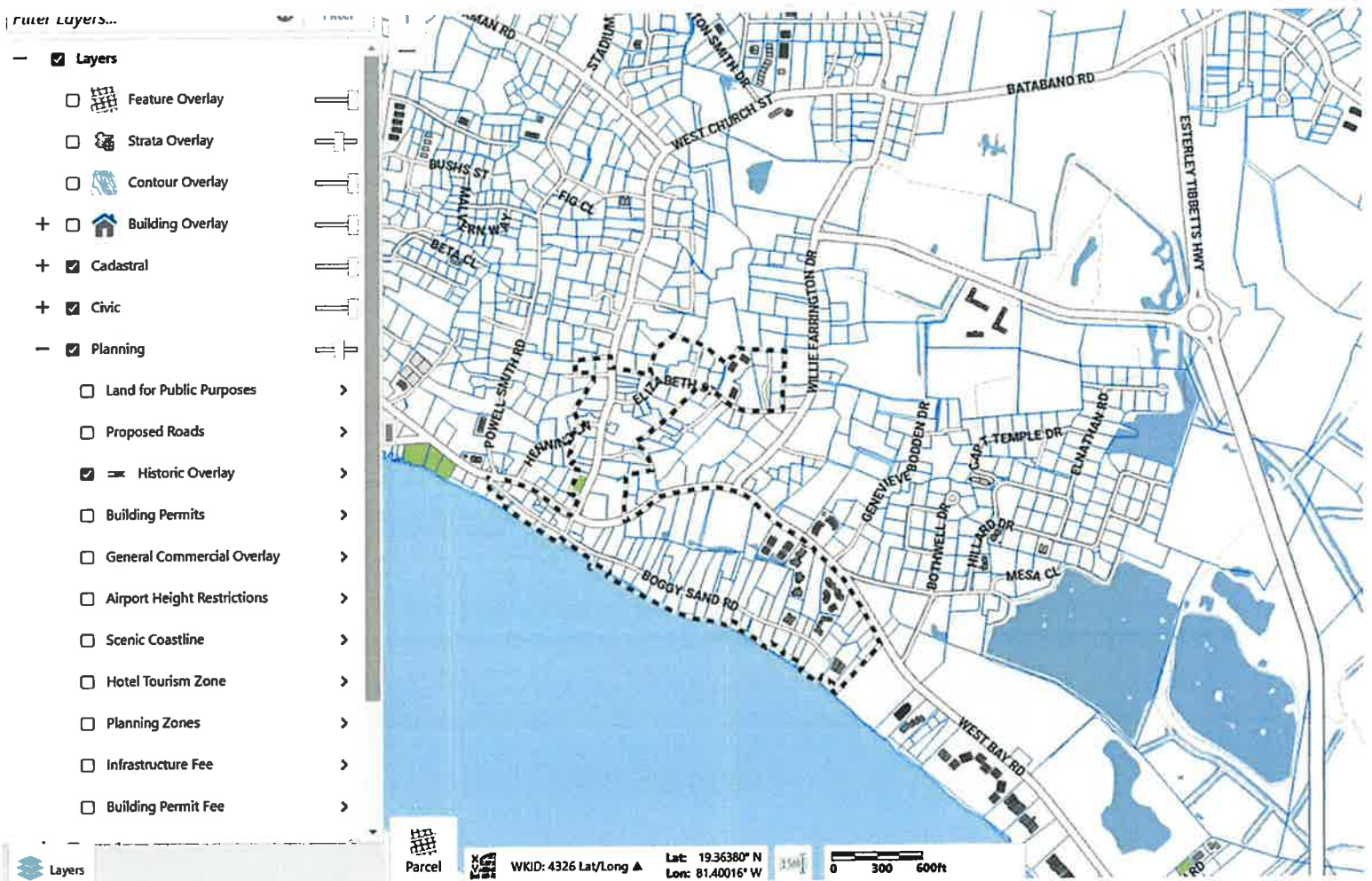
Subject to the Development and Planning Law and Regulations, the Authority shall apply the Historic Overlay Zone provisions and other relevant provisions of the Statement in a manner best calculated to -

- (a) preserve and protect the established historical, architectural or cultural character of the area;
- (b) preserve any significant aspect, appearance or view of the area; and
- (c) preserve and protect any prospect or view, being an environmentally important prospect or view, from any public area.

4. LAND AND SURVEY MAPS

Amongst the maps held by Lands and Survey Department are two zones that have been designated as Historic Overlay Zones, being illustrated in the following maps and comprising:

- West Bay – area loosely defined as Boggy Sand Road, Four Way Stop, Church Street and Elizabeth Street
- Bodden Town – the “main street” section of Bodden Town Road including Manse Road



Existing Historic Overlay in West Bay (shown dotted)



Existing Historic Overlay Zone in Bodden Town (shown dotted)

Currently, Historic Overlay Zones do not include George Town, Savannah, North Side, East End or Little Cayman and Cayman Brac.

National Trust Law (Section 4)

4. (1) The purposes of the Trust are- Purposes and power of trust
- (a) the preservation of the historic, natural and maritime heritage of the Islands through the preservation of areas, sites, buildings, structures and objects of historic or cultural significance;
 - (b) the conservation of lands, natural features and submarine areas of beauty, historic or environmental importance which the Trust may have acquired through gift, bequest, purchase, lease or other means; and
 - (c) the protection of native flora and fauna.
- (2) The Trust has the power to carry out the following activities -
- (a) the identification, investigation, classification, protection and preservation of any place, building, area of beauty, or of historic, cultural or environmental significance and the creation and maintenance of a Heritage Register thereof;

National Trust Law (2010 Revision)

- (b) the acquisition of any property by gift, bequest, purchase, lease or other means and the maintenance, sale or leasing of any such land or thing;
- (c) the provision of access for the public to Trust property, the regulation of the conduct of the public thereon and the charging of a fee for such access:
Provided that different provisions may be made for different Trust property;
- (d) the engagement in programmes for the preservation and propagation of wildlife;
- (e) the raising of funds for the furtherance of the purposes of the Trust and the investment of such funds;
- (f) the provision of information, advice and assistance to the Government and other appropriate persons or bodies for the furtherance of the purposes of the Trust;
- (g) the fostering of public interest in the purposes of the Trust through public information and public education;
- (h) the management and control over such submarine property as may be granted to the Trust by the Governor; and
- (i) such other activities as are necessary for the purposes of the Trust.