Initial Iteration, Rev 0
Environmental Management Plan
East-West Arterial Extension:

Section 2 (Woodland Drive – Lookout Road)
Section 3 (Lookout Road – Frank Sound Road)

NRA
NATIONAL ROADS AUTHORITY

April 29, 2025

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List of Terms

AASHTO	American Association of State Highway and Transportation Officials
CIG	Cayman Islands Government
CMW	Central Mangrove Wetland
CSF	Critical Success Factor
DMRB	Design Manual for Roads and Bridges
DoE	Department of Environment
EAB	Environmental Assessment Board
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMS	Environmental Management System
ES	Environmental Statement
EWA	East-West Arterial
FDOT	Florida Department of Transportation
GHG	Greenhouse Gas
LOS	Level of Service
LTS	Level of Traffic Stress
MT	Metric Tonnes
NCC	National Conservation Council
NRA	National Roads Authority
RCIPS	Royal Cayman Islands Police Service
SOAEL	Significant Observable Adverse Effect Level
SWPPP	Stormwater Pollution Prevention Plan
UMAM	Uniform Mitigation Assessment Methodology
UK	United Kingdom
WAC	Water Authority Cayman
WebTAG	UK Transport Appraisal Guidance

EMP Iterations

Version	**Date**
Initial Iteration – Rev 0	29 April 2025

1 Introduction

The Cayman Islands' National Roads Authority (NRA) is committed to minimising and mitigating the possible environmental impacts associated with the construction and operations of the East-West Arterial (EWA) Extension, Section 2 (Woodland Drive to Lookout Road) and Section 3 (Lookout Road to Frank Sound Road) project (hereafter referred to as 'Proposed Project').

The purpose of this Environmental Management Plan (EMP) is for compliance with the Directive for Environmental Impact Assessments (EIAs), governed under Section 43 of the National Conservation Act (National Conservation Council [NCC], 2016). This document is the conceptual design stage, Initial iteration of the EMP. The First Iteration EMP is developed at the detailed design stage of the project, followed by the Second Iteration of the EMP developed at the construction stage of the project, and completed with the Third Iteration of the EMP developed at the end of construction stage (Design Manual for Roads and Bridges, LA 120 Environmental management plans).

Future iterations and amendments to this EMP are to be made by the NRA project management in consultation with the Cayman Islands' Department of Environment (DoE), as a representative of the NCC. Future iterations and amendments are anticipated at the conclusion of the detailed design phase, and prior to each of the construction phases (estimated to be in 2026, 2036, 2046, 2060), or as needed based on new legal requirements or additional information.

The Final Environmental Statement (ES) published for the Proposed Project contains an assessment of the anticipated impacts of the Proposed Project and provides potential conceptual mitigation measures. The mitigation measures have been established into actions/commitments within the EMP. A summary of the actions/commitments identified for the Proposed Project are included in **Section 7: Record of Environmental Actions and Commitments**.

1.1 Project Overview and Objectives

The Proposed Project is a new roadway and multimodal corridor that connects Section 1 of the EWA Extension (currently under construction) from Woodland Drive in Lookout Road referred to as Section 2 and from Lookout Road to Frank Sound Road referred to as Section 3 in North Side, Grand Cayman (**Figure 1**). The overall EWA Extension is proposed to improve traffic conditions between the eastern and western districts of Grand Cayman, bolster resiliency by adding a second travel route between districts, and to facilitate easier and more timely access to amenities in the western districts along with tourism destinations in the eastern districts. The identified objectives of the project are to:

- Create an alternative travel route to the existing two-lane coastal roadway.
- Improve resiliency and reliability of travel route between North Side/East End and George Town/West Bay.
- Support current and future traffic demand.
- Improve travel time between North Side/East End and George Town/West Bay.
- Improve safety for vehicular and multimodal travel.

- Provide opportunity to safely accommodate and expand resilient, reliable public transportation.

This travel route is also important for emergency services, enhancing evacuation capability, user delay, and travel time reliability for employment opportunities, equity, and overall quality of life, especially when Bodden Town Road is unpassable or compromised.

The Proposed Project is anticipated to be built in phases based on available funding and demand, through year 2060. The timeline for introducing and placing the various features was developed with a focus on managing the overall footprint of the corridor and how to best minimise impacts. This phased approach to construction and development is both fiscally and environmentally prudent and responsible by not building or impacting more than necessary. It also allows the project to adapt to changes in demand due to population growth or developments while also providing lessons learned from prior phases, new mitigation technology, or approaches for mitigation to be deployed during subsequent phases of construction. A graphic depicting the overall footprint of each phase of the build year for Section 2 and Section 3 can be seen in **Figure 2.**

Figure 1: EWA Extension General Location Map

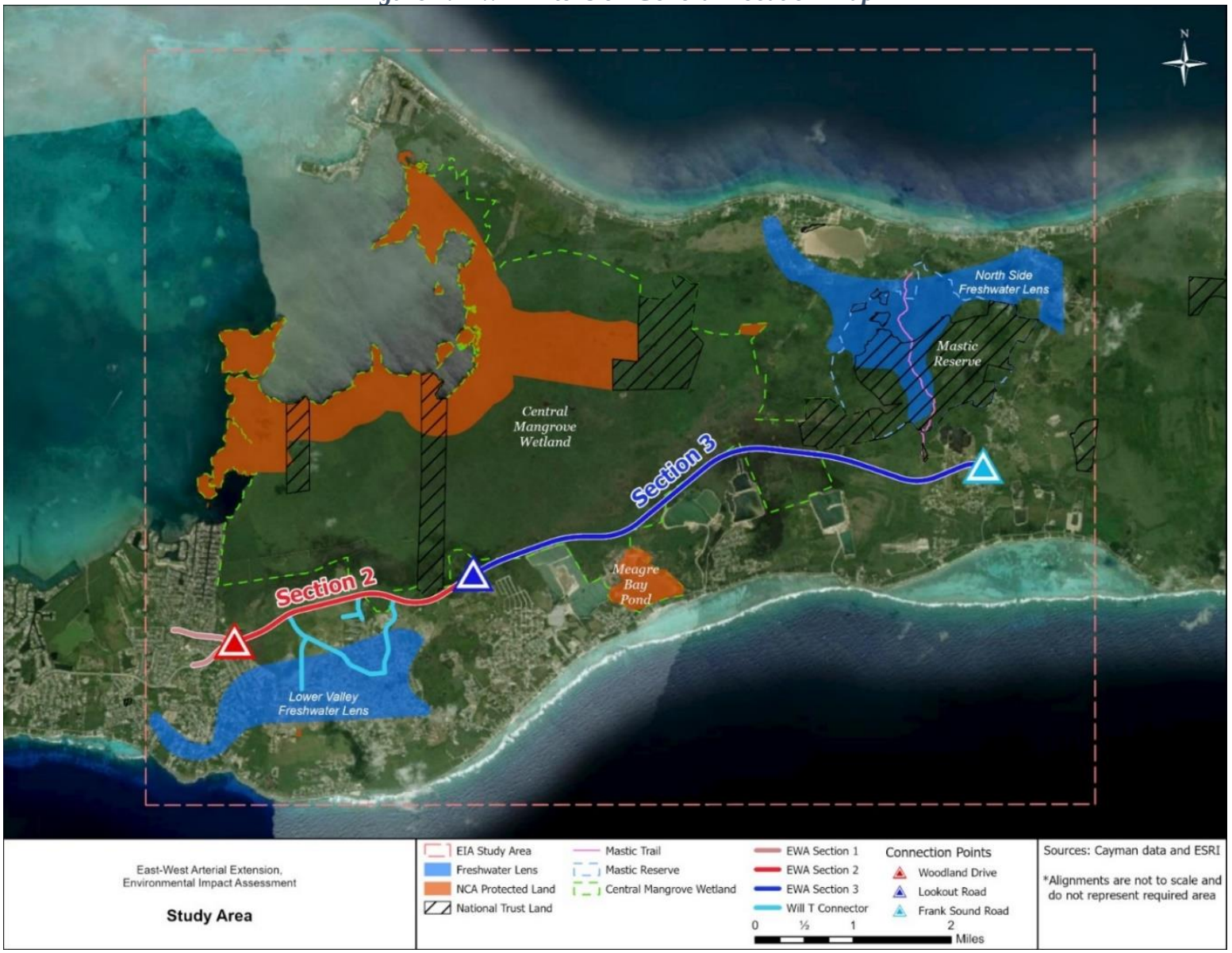
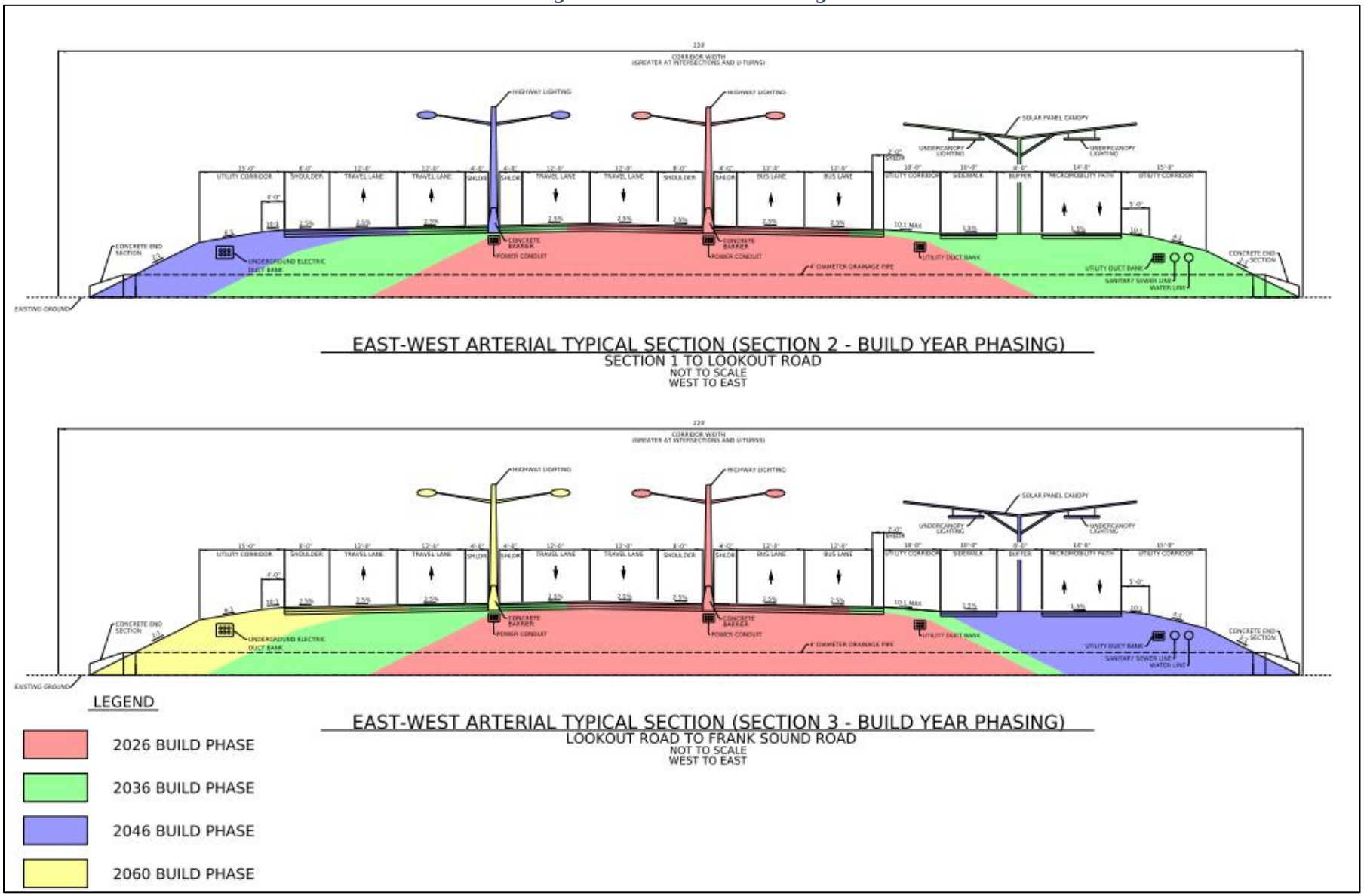


Figure 2: Build Year Phasing



Renditions of the anticipated 2026 typical section and 2060 typical section can be seen in **Figure 3** and **Figure 4**.

Figure 3: Year 2026 – Typical Section

Proposed Project – Sections 2 and 3 (Woodland Drive to Frank Sound Road)

Includes two travel lanes (one in each direction), shoulders, median barrier, and highway lighting.

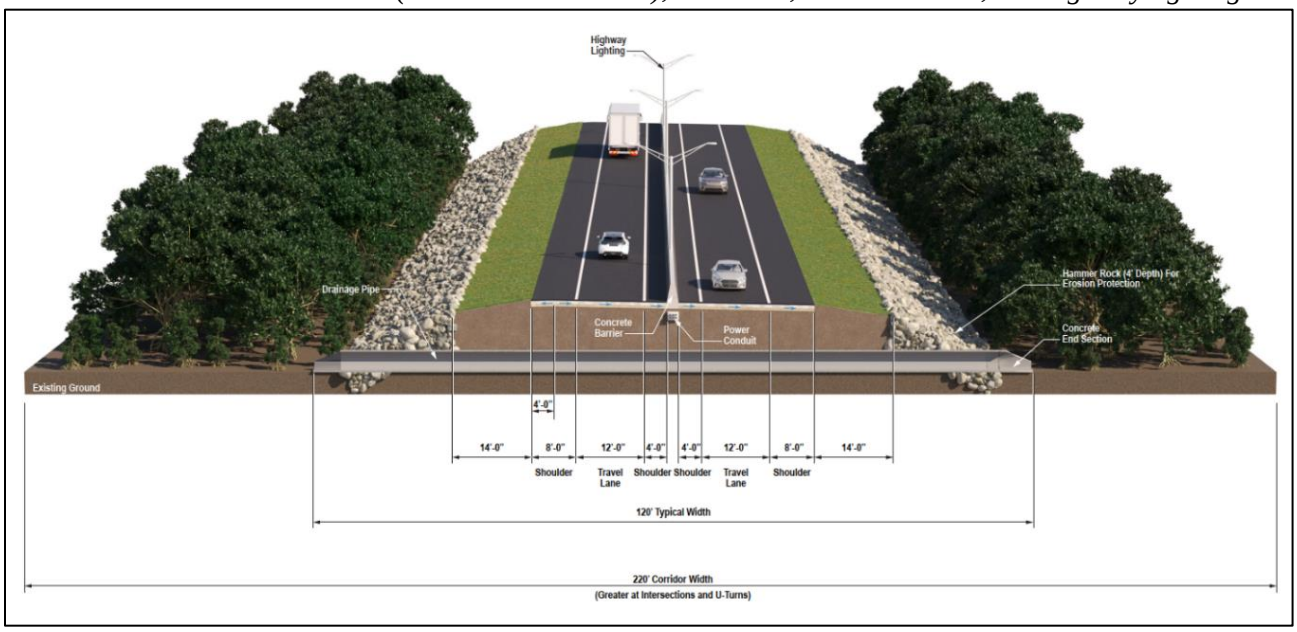
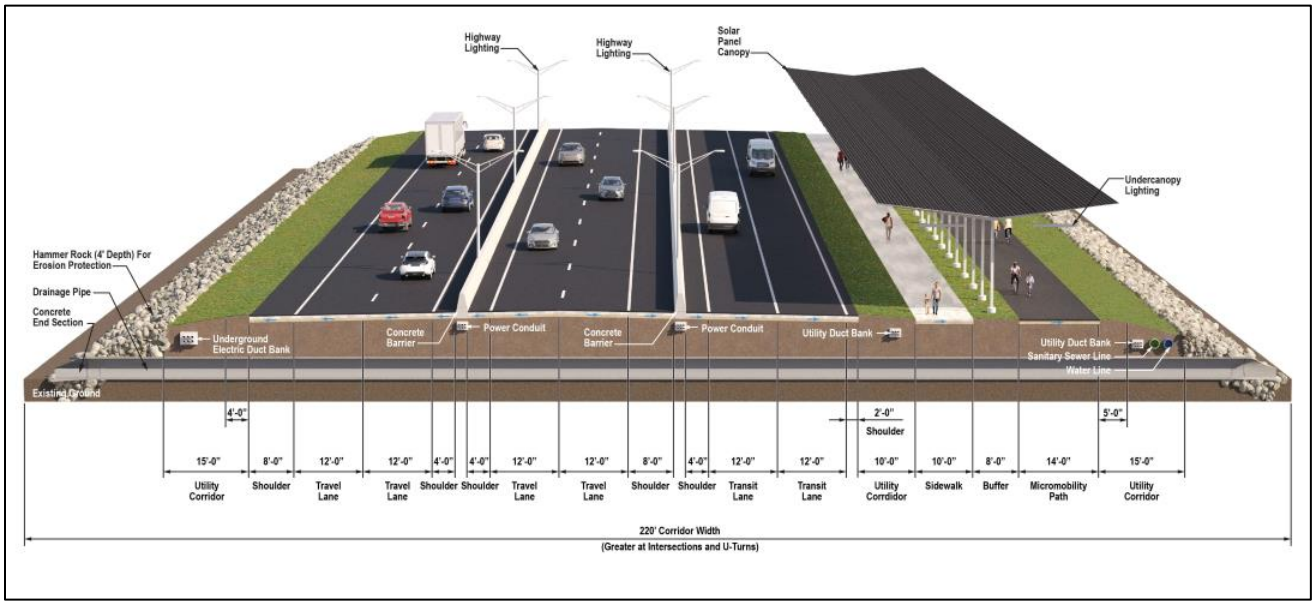


Figure 4: Year 2060 – Typical Section

Proposed Project – Sections 2 and 3 (Woodland Drive to Frank Sound Road)

Includes four travel lanes (two in each direction), shoulders, median barrier, highway lighting, transit lanes, sidewalk, micromobility path, solar array, and utility corridors.



1.2 Purpose of Environmental Management Plan

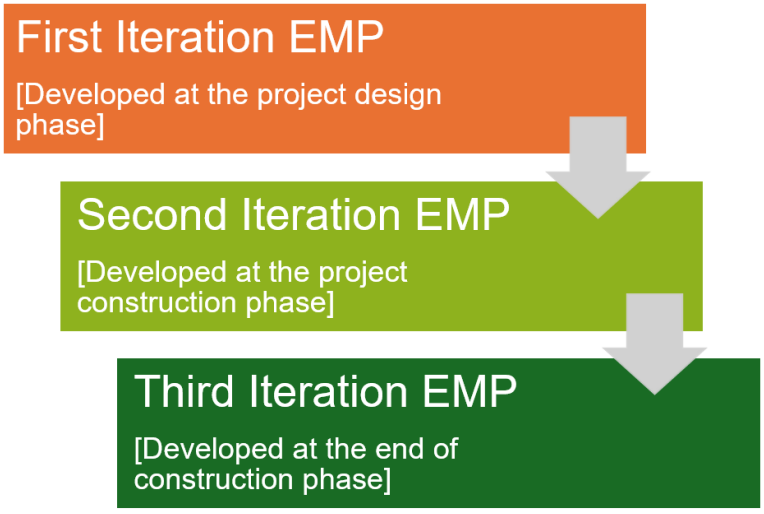
The EMP forms the basis for environmental monitoring and mitigation management during the implementation of the project. The EMP addresses actions/commitments for the design, construction, and operation phase of the Proposed Project. As directed in the EIA Directive (NCC, 2016), an EMP includes:

- *"Institutional arrangements for carrying out the work parameters to be monitored*
- *Methods and best management practices to be employed*
- *Standards or guidelines to be used and thresholds to be adhered to*
- *Schedule and duration of monitoring (including details of initiation of action necessary to limit adverse impacts evident from monitoring)*
- *Format and frequency of reporting of results*
- *Actions to be taken, including stoppage of works, mediation of impacts and revocation of permits, for non-compliance with any aspect of the Environmental Management Plan."*

Additional guidance for transportation related EMPs is provided within the UK Design Manual for Roads and Bridges, LA 120 Environmental management plans.

This Initial Iteration EMP has been prepared at the appropriate level of detail for the conceptual design to guide the future iterations of the EMP (**Figure 5**). The review and potential modifications to the EMP will be required as additional information is obtained. and the First Iteration EMP will be developed at the project detailed design phase. The purpose of this Initial Iteration EMP is to provide the information needed for the detailed design phase to remain in compliance with the ES and establish the basis for the First Iteration EMP. The objective of the Second and Third Iteration EMPs are to provide the information needed for the construction and operation phases to remain in compliance with the ES.

Figure 5: Future EMP Iterations



2 Environmental Management Team Organization and Responsibilities

The NRA is the project proponent and responsible for the oversight of the EMP implementation, funding of required actions/commitments, production of future EMP iterations, and for any required amendments. The NRA is responsible for approving the appointment of a contractor to conduct the construction of the Proposed Project, and an Environmental Manager to ensure environmental compliance. The NRA is also responsible for appointing a Community Liaison Officer to ensure project information and public comments are properly dispersed.

The authority for supervision of the EMP is the Cayman Islands NCC. The NCC authority is delegated to the Environmental Assessment Board (EAB) established as part of the EIA process for the Proposed Project. The EAB for the Proposed Project consists of the DoE (chair), Department of Planning (member), the Water Authority Cayman (member), and Public Works Department (member). The required EMP monitoring reporting, and any environmental incident reports, are to be provided to the EAB.

A Designer will be contracted by the NRA to conduct additional data collection and prepare the detailed design plans and First Iteration EMP. The designer will be tasked with completing the next steps identified in **Section 4: Next Steps for Detailed Design**, and actions/commitments identified within **Section 7: Record of Environmental Actions and Commitments**.

A Principal Contractor (PC) is the contractor responsible for delivering the project and with control over the construction phase of a project involving more than one contractor. The NRA appoints the PC to also plan, manage, monitor, and coordinate compliance with the EMP during this phase. The PC will prepare the Second Iteration EMP and Third Iteration EMP. The PC will be tasked with delegating responsibilities to experienced onsite personnel within the key areas of the site and communicating the agreed upon actions/commitments to NRA. If the PC is local, NRA may also direct the PC to assume the duties of appointing a Community Liaison Officer.

The PC is responsible for coordinating between these teams and overseeing compliance with the EMP. The NRA and its project management team, the PC, and subcontractors are responsible for complying with the EMP during the construction phase. Additional roles to establish site environmental management and compliance will be identified and delegated by the PC. These include the PC Environmental Specialists, which will oversee specialized areas of environmental monitoring and compliance.

Table 1 provides an overview of the primary roles and responsibilities for the implementation of the EMP. Specific contact names, contact details, and any further delegation of responsibilities are to be provided where applicable in later EMP iterations.

Table 1: EMP Roles and Responsibilities

Role	Responsibilities
NRA Project Manager	Oversee implementation of entire project and manage the individuals undertaking specific roles and duties. To be responded to as per contract requirements. Ensure that the Primary Contractor is in compliance with relevant legal requirements and EMP commitments.
Designer	Responsible for completion of detailed design plans and incorporating the identified environmental actions/commitments. Responsible for production of the First Iteration EMP.
NRA or PC Community Liaison Officer	Responsible for liaison with the public regarding construction activities and logging received comments, complaints or inquiries regarding the Proposed Project.
PC Project Manager	Responsible for the management of the construction phase of the project. Responsible for compliance with the First Iteration EMP and production of the Second Iteration EMP and Third Iteration EMP. Responsible for communication with the NRA's Project Manager. Will have overall responsibility for the environmental performance of the project during construction. Having communications with NRA and EAB on environmental matters.
PC Environmental Manager	Acts as the central point of contact for environmental concerns (as they arise). Ensures coordination of environmental matters with the Principal Contractor, Site Manager, NRA Project Manager, and EAB. Responsible for the: • Compliance with relevant environmental regulations and EMP commitments. • Preparing any updated environmental documentation required. • Conducting training for site personnel. • Investigating environmental incidents (as needed). • Coordination of PC Environmental Specialists • Inspecting construction activities for compliance with the EMP. • Reporting any incidents of non-compliance to the Primary Contractor Project Manager.

Role	Responsibilities
PC Environmental Specialists	The PC will be required to appoint qualified environmental specialists for the following subject areas to advise and monitor the environmental actions/commitments: • Noise and vibration • Terrestrial ecology • Waste management • Contamination and remediation • Water quality • Others, as required
Environmental Assessment Board (EAB)	Review agency in further EMP iterations (**Figure 5**) or required revisions.

3 Additional Management Plans

Additional subject area specific management plans are to be established as detailed design and construction continue and will be appended to the EMP. These anticipated additional management plans may include, but are not limited to:

- Landscape and Ecological Management Plan (LEMP)
- Stormwater Pollution Prevention Plan (SWPPP)
- Spill Emergency and Response Plan
- Incident Response Plan
- Construction Drainage Plan and/or Flood Hazard Management Plan
- Stormwater Management Plan
- Invasive Species Management Plan
- Materials Management Plan
- Site Waste Management Plan
- Haul Road Management Plan
- Contamination Management Plan
- Dust Control Plan
- Health and Safety Plan

4 Next Steps for Detailed Design

Moving forward into the detailed design phase of the EWA Extension project, a series of tasks have been identified as critical for advancing the Proposed Project's design. To ensure a clear understanding and efficient execution, these tasks are categorized into 'Required' and 'Optional' activities. Each task lists the responsible parties to facilitate accountability and streamline communication. Below is a detailed breakdown of these tasks, incorporating stakeholder roles such as the Designer, the NRA for Design Approval, and the EAB for Environmental Approval.

4.1 Required Tasks

Surveying and Geotechnical Data Collection:

- Detailed topographic surveying (Designer; NRA)
- Geotechnical investigation and data collection (Designer; NRA)

Project Management and Planning:

- Construction phasing plan to minimize disruption – Constructability Plan (Designer; NRA, EAB, Royal Cayman Islands Police Service)
  Ensure alignment with environmental protection measures, traffic management, and emergency procedures to minimize impact on local communities and ecosystems.
- Risk management and contingency planning (Designer; NRA, in consultation with EAB)
  Coordinate closely with roadway design to adapt plans based on identified risks and geological findings.
- Accessibility and maintainability plan (Designer; NRA, in consultation with EAB)
- Public Involvement and Stakeholder Coordination (Designer; NRA, EAB; developers; business owners; landowners; General Public; Public Transit; government officials; media; Tourism Sector Representatives)
- Preparation of other management plans and documentation that will define the procedures and guidelines for environmental matters, as required. (Designer; NRA, EAB)

Roadway Design:

- Intersection layout verification and design calculations (Designer; NRA)
- Vertical alignment/profile refinements (Designer; NRA)
- Tapers, cross-slopes, and superelevation design refinements (Designer; NRA)
- Pavement design/material selection (Designer; NRA)
- Roadside barrier design (Designer; NRA)

Hydrologic/Hydraulic and Drainage Design:

- Complete detailed hydrologic/hydraulic modelling. Full scale rainfall and storm surge modelling of the Detailed Design roadway and roadway opening structure configuration (Designer; NRA, in consultation with EAB)
- Develop roadway stormwater drainage design (Designer; NRA, in consultation with EAB)
  - Detailed design of the localised drainage systems to handle flooding from smaller, more frequent storms.
  - Detailed design of the road and the opening structures under the road to handle flooding from larger, more extreme storms.
  - Design stormwater systems to be effective with rising sea level.
  - Develop a maintenance schedule to inspect stormwater management components in an effort to achieve long-term functionality.
- Design drainage infrastructure and stormwater management to minimise water quality impacts (Designer; NRA, in coordination with EAB)
  - Identification of stable locations to discharge stormwater from the roadway.
  - Review potential use of linear treatment systems to filter roadway runoff.

- Design roadway culverts and other drainage systems to maintain water hydrologic connectivity between both sides of the road (Designer; NRA, in coordination with EAB)
    - Use culverts or other “levelling” devices along the length of the corridor.
    - Place openings to avoid hydrologic disconnection of wetlands and other impacts.
    - Coordinate with terrestrial ecology for placement of "levelling" devices.
    - Consider latest developments and future developments that are in possession of an accepted planning application.

Structural Design:

- Detailed design of bridges, culverts, and/or other structures, and noise walls (if noise mitigation is required) * (Designer; NRA, in consultation with EAB)
  **Note: The use of bridges and/or other structures is subject to change.*

Traffic and Safety:

- Roadway signage and pavement marking layout/requirements (Designer; NRA, RCIPS)
- Highway lighting design and layout (Designer; NRA)
- Maintenance and protection of traffic during construction layout/design (Designer; NRA, RCIPS)

Environmental Design of Mitigation Measures and Sustainability:

- Environmental protection measures during construction layout/design (Designer; NRA, in coordination with EAB)
- Noise reduction measures (if required) (Designer; NRA, in coordination with EAB)
    - Designer to conduct further noise analysis of sensitive receptor sites identified in the ES to determine if noise walls will provide an acceptable decibel reduction, determine cost, determine construction feasibility, and conduct public involvement to get input from affected parcel owners. NRA to make final determination if noise walls should be included in detailed design.
- Additional data collection for the specific terrestrial habitat types being impacted (Designer; NRA, in coordination with EAB)
- Design environmental protection measures to maintain existing drainage patterns and hydrologic connectivity throughout construction (Designer; NRA, in coordination with EAB)
    - Confirm the site temporary stockpiles and construction access.
    - Develop a temporary construction drainage plan.
    - Identify potential staging/stockpile locations with minimization of impacts.
    - Include project notes that emphasize the need to avoid placing stockpiles in sensitive areas, such as mangroves and peat.
    - Develop temporary construction access and drainage systems. Where deemed feasible, proposed drainage features (e.g. culverts) may be constructed as a part of early works to assist in the maintenance of drainage patterns during construction.
- Design environmental protection measures to protect water quality during construction (Designer; NRA, in coordination with EAB)
    - Regular inspection of construction equipment.

    - Identification of areas for maintenance, re-fuelling, and storage away from natural resources.
    - Development and implementation of a spill emergency and response plan and/or a complete Stormwater Pollution Prevention Plan (SWPPP).
- Develop erosion/sediment prevention plan, including SWPPP or similar to reduce soil erosion during construction (Designer; NRA, in coordination with EAB)
    - Limit vegetation clearing to active construction areas.
    - Use best practice erosion/sedimentation prevention techniques.
    - Regular inspection of erosion/sediment prevention devices.
    - Repair of erosion/sediment prevention devices as needed.
    - Stabilization of site after work has been completed.
    - Regular inspection/monitoring integrated into consolidated SWPPP.
- Design environmental protection measures to minimise soil compaction during construction (Designer; NRA, in coordination with EAB)
    - Use of low-impact construction vehicles and/or mats. Construction vehicles may include soft-track vehicles or vehicles with low tire pressure that can traverse peat and wetland areas without causing significant soil damage.
- Design environmental protection measures to minimise flooding during construction (Designer; NRA, in coordination with EAB)
    - Consideration of site layout.
    - Grading of surfaces to direct floodwater away from equipment and evacuation routes.
    - Creation of a flood hazard management plan.
- Wetland mitigation measures (Designer; NRA, in coordination with EAB)
    - Designer will determine acres of impact based on detailed design, evaluate functionality, and determine mitigation construction plans in an effort to offset the identified impacts.
    - Mitigation contractor will receive mitigation construction plans, and mitigation sites will be constructed in concert with road construction.

Utility and Infrastructure:

- Utility corridor widths and alignment based on utility needs and future connections (Designer; NRA, Utility providers)

4.2 Optional Tasks

Access/Intersection Design:

- Re-evaluation of intersection designs, traffic forecasts, and any downstream effects, such as Greenhouse Gas Emissions and Noise, that may change if access is modified (Designer; NRA, in consultation with EAB if necessary)

Traffic Forecasts:

- Update of traffic forecasts as the project progresses to help trigger when additional phases of the project will be warranted (Designer; NRA)

Environmental and Sustainability:

- Landscaping and aesthetic treatments using low-maintenance and native plant species (Designer; NRA, in consultation with DoE)
- Sustainability measures such as solar-powered lighting and recycled materials (Designer; NRA, in consultation with EAB if necessary)

Drainage Design:

- Include applicable Green Stormwater Infrastructure and Low Impact Design or Development structures, if deemed viable (Designer; NRA, in consultation with EAB if necessary).

Utility and Infrastructure:

- Integration of Intelligent Transportation Systems (ITS) for V2I and CAV readiness (Designer; NRA, in coordination with Public Transport Unit and RCIPS)
- Digital and smart infrastructure planning, including fiber optics and sensor placements (Designer; NRA)

Security and Accessibility:

- Security measures such as CCTV cameras and emergency response systems (Designer; NRA, RCIPS, Ministry of Home Affairs/Department of Public Safety Communications)
- Accessibility features ensuring Cayman Islands Disability Policy 2014-2033 compliance for pedestrian facilities (Designer; NRA, Department of Planning in coordination with Public Transport Unit)

Multimodal and Future Integration:

- Multimodal integration, including bus rapid transit lanes, bike lanes, and pedestrian paths (Designer; NRA, in coordination with Public Transport Unit)
- Coordination with future developments for adaptable infrastructure (Designer; NRA, in consultation with EAB if necessary)

5 Standards, Guidelines, and ES Documented Impacts

Nine topic areas were identified within the scoping of the EIA and included within the Proposed Project ES:

- Engineering
- Transportation and Mobility
- Socio-Economics
- Noise and Vibration
- Greenhouse gas emissions
- Geo-Environmental
- Hydrology and Drainage, Including Climate Resiliency
- Terrestrial Ecology
- Cultural and Natural Heritage

A summary of the standards, guidelines, and ES documented impacts for each of the topic areas is provided in this section. Further details for each of the topic areas can be found within the published ES. The resulting actions/commitments are included in **Section 7: Record of Environmental Actions and Commitments**.

5.1 Engineering

5.1.1 Standards and Guidelines

The design criteria guiding the development of the Proposed Project were developed using various design guidelines and references that are to continue to serve as a foundation during detailed design, including:

- American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets (Green Book 2018 – 7th Edition)
- AASHTO Guide for the Development of Bicycle Facilities (2012)
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004)
- AASHTO Roadside Design Guide (2011)
- Florida Department of Transportation Standard Plans for Road Construction (2024-25)
- National Association of City Transportation Officials Urban Bikeway Design Guide (2011)
- Traffic Signs Manual – Guidance for Traffic Authorities on the Use of Traffic Signs and Road Markings (UK Department for Transport, June 2006, including updates)

The Cayman Islands classifies roadway facilities as either Primary or Secondary Arterial roadways and the Proposed Project would be classified as a Primary Arterial. For design purposes, the AASHTO classification of Rural Principal Arterial was used to establish appropriate design criteria.

5.1.2 ES Documented Impacts

It is anticipated that the Proposed Project would impact land parcels along the entire length of the proposed facility. In some cases, this would result in a partial property parcel take, where only a portion of the property is impacted and purchased, while in other instances, a full property parcel

taking would be necessary, requiring the acquisition of the entire parcel. The Proposed Project is anticipated to impact 249 acres (101 hectares) and impact three structures.

5.2 Transportation and Mobility

5.2.1 Standards and Guidelines

Relevant international standards/guidelines and Cayman Island government reports were reviewed to determine the methodology used to assess transportation and mobility. The assessed standards and reports included the following.

5.2.1.1 Cayman Reports

Reports from Cayman Islands government agencies include:

- *Cayman Islands' Census of Population and Housing 2021* – Economics and Statistics Office

5.2.1.2 UK, US, and International Standards

UK Department of Transport's WebTAG standards include:

- *WebTAG Unit M1.1 Principles of Modelling and Forecasting*
- *WebTAG Unit M4 Forecasting and Uncertainty*
- *WebTAG Unit M3.1 Highway Assignment Modelling*

Additional UK standards include:

- *The Green Book,* 2022 – UK HM Treasury

US standards include:

- *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis,* 2022 – Transportation Research Board
- *Highway Safety Manual,* 2014 – AASHTO
- *A Policy on Geometric Design of Highways and Streets*, 2018 – AASHTO
- *Crash Modification Factors,* 2023 – Federal Highway Administration

Additional US references include:

- *Visualizing and Measuring Low Stress Bicycle Network Connectivity in Delaware*, 2016

5.2.2 ES Documented Impacts

Based on the comprehensive modelling and analysis conducted in this study, the Proposed Project was projected to positively impact many of the existing transportation issues and concerns. The project was evaluated across several Critical Success Factors (CSFs), demonstrating a beneficial (positive) impact on components including travel times, multimodal access, safety, and resiliency compared to the No-Build.

Impacts from the Proposed Project are projected to degrade intersection delay at the intersections of Bodden Town Road at Frank Sound Road (#1100) in 2074, Frank Sound Road at Clifton Hunter High School (#1200) from 2036 onward, and EWA at Agricola Drive Connector (#1400) from

2046 onward. The Proposed Project is projected to negatively impact these three intersections based on Level of Service criteria due to an increase in traffic demand and volumes. **Table 2** summarizes the improvements needed at each intersection for each future analysis year.

Table 2: Proposed Project Additional Improvements for Existing Intersections

#	Intersection	Improvement Needed	2026	2036	2046	2074
1100	**Bodden Town Rd at Frank Sound Rd**	Conversion to a traffic signal	No	No	No	Yes
1200	**Frank Sound Rd at Clifton Hunter Highschool**	Conversion to a traffic signal	No	Yes	Yes	Yes
		Restripe southbound approach to include a southbound right-turn lane	No	No	Yes	Yes
1400	**EWA at Agricola Drive Connector**	Conversion to three-lane roundabout with bypass lanes	No	No	Yes	Yes

5.3 Socio-Economics

5.3.1 Standards and Guidelines

Methodology for quantitative and qualitative assessment of impacts to socio-economic resources and conditions was described in the Terms of Reference (ToR) and is based on the applicable standards and guidelines and the available data sources. Relevant Cayman Islands laws, UK standards/guidelines, and CIG reports were reviewed to determine the methodology that was used to assess socio-economics. The primary standard utilized was UK Department for Transport's Transport Analysis Guidance Unit A4-1 and A4-2.

5.3.2 ES Documented Impacts

5.3.2.1 Construction Phase

Temporary positive construction impacts centre around providing job opportunities for Caymanians and economic opportunities for local businesses. Because the Proposed Project is in the conceptual design phase at the time of this writing, these benefits were not quantified.

There may also be possible temporary negative socio-economic impacts that may occur during construction, including:

- The removal and relocation of the Frank Sound Fire Station
- Quality of life construction impacts, including: temporary viewshed disturbances, construction noise and vibration, and traffic disruptions.

5.3.2.2 Operation Phase

Key socio-economic benefits associated with operation of the Proposed Project centre around the social and economic benefits that come from transportation improvements as compared to the No-Build scenario. The Proposed Project being a second east-west corridor for Grand Cayman has the

potential to increase employment opportunities for eastern district residents; free up time that would otherwise be spent driving to and from work or school; and attract more tourists to the eastern districts, which encourages tourist spending on the eastern side of the island. Those who use the Proposed Project would also experience safety benefits and reduced frustration resulting from the projected lower volumes of traffic at intersections.

The projected possible social and economic benefits of the Proposed Project include:

- Reduction in the amount of time spent travelling from East to West in the morning, and from West to East in the evening. In 2026, the Proposed Project would offer a 9% reduction in travel time when compared with the No-Build scenario. In 2074 this would be a 17% reduction in travel time when compared with the No-Build scenario.
- Reduction in the amount of time spent travelling to and from key tourist destinations in the AM and PM. In 2026, the Proposed Project would offer an 11% reduction in travel time, and in 2074 the Proposed Project would offer a 19% reduction in travel time, when compared with the No-Build scenario.
- An increased number of people able to make work trips from East to West in the AM and West to East in the PM. In 2026, the Proposed Project could accommodate 23% more trips, and in 2074 the Proposed Project could accommodate 16% more trips, when compared with the No-Build scenario.
- More jobs available to residents of North Side and East End within reasonable travel times (15 and 30 minutes). In 2026, the Proposed Project could provide access to 13% more jobs, and in 2074 the Proposed Project could provide access to 55% more jobs, when compared with the No-Build scenario.

The Proposed Project also offers a resiliency benefit providing a second transportation link between the eastern and western districts should the coastal road become unavailable. In 2026, an additional 8% of the population would be able to reach emergency services in the western districts if the coastal road was unavailable, compared with the No-Build scenario. In 2074, it would be an additional 13% of the population.

The Proposed Project also provides the opportunity to accommodate other types of travel, such as transit, walking, or biking, along with micromobility travel. In addition, the proposed improvements to the network of roads referred to as the Will T Connector, including the inclusion of a sidewalk, would offer increased mobility options for people living in that area of Grand Cayman. Similarly, the proposed sidewalk and proposed micromobility path that would travel the full length of the Proposed Project offers dedicated travel options for pedestrian, bicycling, and micromobility vehicles.

The possible negative socio-economic impacts during operation of the Proposed Project are related to the possibility for increased roadway noise and vibration for certain homes and businesses; the chance of viewshed impacts for a low number of residents; and the possibility of development occurring next to the corridor in natural areas that are valued for environmental aesthetics.

5.4 Noise and Vibration

5.4.1 Standards and Guidelines

Since the Cayman Islands' Government does not have specific published standards or guidance on noise and vibration, this assessment relied on the UK's Design Manual for Roads and Bridges (DMRB) Noise and Vibration Manual, reference document LA 111, supplemented by the Institute of Environmental Management and Assessment Guidelines for Environmental Noise Impact Assessment.

5.4.2 ES Documented Impacts

5.4.2.1 Construction Phase

The predominant activities associated with the construction of the Proposed Project are anticipated to include earth removal, hauling, grading, and paving. Temporary and localised construction noise impacts are anticipated to occur as a result of these activities. The predicted effects of these impacts may include temporary speech interference for passers-by and those individuals living or working near the project.

Nine representative noise-sensitive receptors were evaluated to estimate construction noise impacts within the study area. Additional commuting vehicles, delivery vehicles, and construction vehicles were added to the No-Build scenario traffic volumes. The change in noise levels for these receptors ranged from 1 A-rated decibel (dBA) to 5dBA. A dBA is a weighted scale for judging loudness that corresponds to the hearing threshold of the human ear. The level of projected changes represent minor to moderate noise level impacts.

Construction activity can also produce noticeable vibrations. The two types of construction equipment estimated to produce the largest magnitude of vibration are a vibratory roller and a drill rig. The specific areas where these types of equipment are anticipated to be used are unknown at this stage. However, a prediction of the magnitude of vibration impact can be assessed based on the distance a receptor would be away from these pieces of equipment. For example, a distance of within 16.4 feet (5 meters) of the vibratory roller, a major vibration impact can be felt; from 75.5 to 170.6 feet away (23-52 meters), the impact would be minor. Within a distance of 9.8 feet (3 meters) of the drill rig, a major vibration impact can be felt; from 42.7-95.1 feet away (13-29 meters), a minor impact can be felt (**Table 3**).

Table 3: Magnitude of Vibration Impact Screen Distances

Magnitude of Impact	Screening Distance for Vibratory Roller		Screening Distance for Drill Rig	
	(ft)	(m)	(ft)	(m)
Minor	75.5-170.6	23-52	42.7-95.1	13-29
Moderate	16.4-75.5	5-23	9.8-42.7	3-13
Major	<16.4	<5	<9.8	<3

5.4.2.2 Operation Phase

Noise modelling was used to estimate traffic noise levels for future years (2026, 2036, 2046, and 2074). Noise levels were estimated for both the No-Build and Proposed Project by applying traffic volumes and composition to the validated computer model. No-Build noise levels were predicted without the Proposed Project improvements in place. Proposed Project noise levels were predicted by accounting for the Proposed Project improvements.

The next step in the noise analysis was to determine if future noise levels at the noise sensitive receptors would approach or exceed the Significant Observable Adverse Effect Level (SOAEL). If the criteria are met or exceeded at any receptor, noise abatement is to be considered to reduce future traffic noise.

The receptors closest to the Proposed Project are projected to experience the most added change in noise levels. In 2026, 889 noise receptors are projected to experience a noticeable increase in noise level, 452 are projected to experience a noticeable decrease in noise level, and 94 receptors are projected to experience no substantial change. By 2074, 963 receptors are projected to experience a noticeable increase in noise and one receptor is projected experience a noticeable decrease in noise level, while 471 receptors are projected to experience no change or a negligible change in noise level for the 2074 Medium Growth scenario compared to the 2026 No-Build scenario.

As a result of these studies, it was projected that a number of the noise receptors would be at or above the SOAEL threshold. In 2026, 82 noise-sensitive receptors are projected to be at or above the SOAEL threshold. By 2074, 279 receptors are projected to be at or above the SOAEL threshold for the 2074 Medium Growth scenario (**Figure 6**).

It was also projected that some of the noise receptors that are farther away from the Proposed Project would experience a noticeable decrease in noise. However, many of these receptors are located along Bodden Town Road and are projected to still be impacted by noise at or above the SOAEL threshold mainly due to their proximity to this roadway.

Figure 6: Proposed Project 2074- Medium Scenario SOAEL (68 dBA) Impacts

5.5 Greenhouse Gas Emissions

5.5.1 Standards and Guidelines

Standards, guidance and draft documentation related to greenhouse gas (GHG) emissions include:

- Cayman Public Health Law, 2002 Revision
- IFC Guidance Note 3, 2006
- Cayman Islands' Climate Change Policy, 2024
- UK National Highways: Introduction and General Requirements for Sustainable Development and Design (GG103), Revision 0, 2019
- Cayman Islands National Energy Policy 2017-2037
- Cayman Islands National Energy Policy 2024-2045
- UK National Highways Carbon Tool Guidance Version 2.5, 2022

Since there is no Cayman Islands-specific GHG reporting threshold, the context for this study utilized the U.S. Environmental Protection Agency and the State of Florida guidance that 25,000 metric tonnes (MT) of GHG emissions requires reporting to the agency, and that 100,000 MT equates to a large or major source. For the purposes of this analysis, the GHG project significance threshold would be equivalent to the large source threshold (100,000 MT). This threshold provides a numerical comparison for Proposed Project emissions and provides context for the general impact.

5.5.2 ES Documented Impacts

5.5.2.1 Construction Phase

The projected possible impacts from constructing the Proposed Project include:

- Construction tailpipe emissions – the vehicles used during construction emit GHGs, including carbon dioxide, methane, and nitrous oxide. The workers commuting to and from the construction site, plus the delivery trucks for materials also emit GHGs. The lifetime construction tailpipe emissions were estimated to emit 32,388 MT (35,702 short tons) of carbon dioxide equivalent, a metric which allows for the comparison of different GHGs.
- Habitat and peat removal – removing peat, mostly from mangrove areas, causes GHG emissions. Removing vegetation (for example, trees) from habitats also emits GHGs. The Proposed Project is estimated to emit 73,589 MT carbon dioxide equivalent (81,118 short tons) from habitat clearing and peat excavation.
- Bulk materials – the materials used to construct a new roadway (for example, asphalt and concrete) require carbon to be made. Overall, the Proposed Project is estimated to emit 97,953 MT (107,974 short tons). No-Build scenario emissions are expected to be 10,036 MT (11,063 short tons).

5.5.2.2 Operation Phase

The projected possible impacts from operating the Proposed Project include:

- Traffic operations –the GHG emissions were estimated to be released from vehicles driving within the study area. The results of the analysis indicate that emissions trend upward throughout the life of the Proposed Project. However, the Proposed Project has a lower

impact when compared to the Future No-Build scenario. These improvements gradually increase ranging from a reduction of 519.6 MT (572.7 short tons) in 2026 to 17,203.6 MT (18,249.3 short tons) for the 2074-Medium scenario.

- Annual carbon storage loss – the habitat removed during construction would have stored carbon, preventing it from entering the atmosphere. The total anticipated carbon sequestration rate for the lost habitat is estimated at 424.2 MT of carbon dioxide equivalent per year (467.6 short tons).
- Solar array – the proposed solar array is estimated to reduce carbon emissions by providing electricity. Current electricity on Grand Cayman is made by burning diesel, which emits GHGs. Based on the preliminary solar array assessment, the anticipated total carbon dioxide (GHG) reduction equates to 566,644 MT (624,618 short tons) over the expected 30-year lifetime of the facility.

5.6 Geo-Environmental

5.6.1 Standards and Guidelines

The Water Authority Cayman (WAC), under the Water Authority Act (2022 Revision), is charged with the management, control, and protection of water resources. The Water Authority Act (2022 Revision) states in Section 19 that groundwater vests in the name of the Crown and appoints the WAC as the custodian of groundwater in the name of, and on behalf of, the Crown.

The WAC in the Cayman Islands is a utility and a regulatory agency that operates a central sewerage system and regulates onsite wastewater treatment systems. The WAC also operates a central water supply system that uses reverse osmosis treatment of saline groundwater. In addition, the WAC regulates the construction and use of water supply wells.

The Water Authority Law, passed in 1982, placed controls on extraction from freshwater lenses. Three large, exploitable freshwater lenses occur on Grand Cayman. Formerly widespread was the pumping and trucking of water from such lenses, and some trucking of water continues. Historically some other (smaller) freshwater lenses on Grand Cayman have been lost due to excessive pumping and/or groundwater contamination.

Section 19, part (2) of the Development and Planning Regulations of the Cayman Islands (2020 Revision) indicates that, "Strict conditions shall be imposed to ensure that the water in the lens shall not be contaminated by the development or by the effluent therefrom and that the quantity of water used will not deplete the lens to the disadvantage of the existing users."

In addition, for completing the potable water needs of the population in Grand Cayman, there are desalinisation stations. The WAC also operates four reverse osmosis plants on Grand Cayman. The Cayman Water Company (a private water utility) also operates three reverse osmosis plants to supply users in the western part of Grand Cayman.

The WAC also regulates the treatment and disposal of wastewater. There is no central sewage system in the Study Area and wastewater in the project area is treated by septic tanks for small developments and aerobic treatment units for larger developments. Treated effluent is discharged into effluent disposal wells. The WAC issues the specifications for effluent disposal wells.

The NRA manages stormwater disposal, typically excess stormwater is disposed via stormwater drainage wells. In the Cayman Islands the term effluent is typically used for disposal wells for the disposal of treated effluent, and stormwater wells for the disposal of stormwater.

5.6.2 ES Documented Impacts

5.6.2.1 Construction Phase

The projected possible impacts from constructing the Proposed Project include:

- Changes to the freshwater lenses, which could mean pollution, less rainwater getting to the freshwater lenses, changes to how they receive water, or the freshwater may become salty. It could also mean accidentally draining the freshwater lens into the permeable rock below. The Proposed Project is estimated to directly overlay 10.3 acres (4.2 hectares) of the Lower Valley Lens recharge area [which is 960 acres (388 hectares) in total].
- Impacts to peat, such as compacting it with construction equipment or removing it. The peat may also become contaminated. The Proposed Project is estimated to require a maximum of 441,579 cubic yards (337,612 cubic metres) of peat removal.
- Rock from the local Cayman quarries is anticipated to build the roadway, which may limit other uses of the rock. It is estimated that the Proposed Project would require a maximum of 10-15% of the available rock in local Cayman quarries.
- Chemical compounds could be released during peat removal. These compounds could have impacts on human health.

5.6.2.2 Operation Phase

The projected possible impacts from operating the Proposed Project include:

- Rainwater could wash pollutants from the roadway. Those pollutants might make their way into the freshwater lenses. The Proposed Project is estimated to include 145 acres (59 acres) of impervious surface area.
- The Proposed Project may permanently change how water moves and drains near the freshwater lenses. These changes could prevent some water from reaching the lenses. This could result in less fresh water within the lenses.
- The peat near the Proposed Project may become contaminated from roadway pollutants.

5.7 Hydrology and Drainage, Including Climate Resiliency

5.7.1 Standards and Guidelines

Several standards and manuals are recommended for application on this project (**Table 4)** as part of project development through detail design stage. The additional standards and manuals from the UK, Canada and other international standards that were evaluated for consideration are listed in **Table 5**. The specific standards and manuals that are to be utilized will be identified and implemented during detailed design.

Table 4: Recommended Standards and Manuals

Standards and Manuals	Application
• Grand Cayman Planning Department's Grand Cayman Stormwater Management Guidelines	General design of drainage system features.
• Prince George's County, Maryland's Department of Environmental Resources Low-Impact Development Design Strategies: An integrated Design Approach	Guidance in selecting alternative environmental water quality treatment features.

• U.S. Florida Department of Transportation (FDOT) documents
  ○ Drainage Manual
  ○ Drainage Design Guide
  ○ Bridge Scour Manual
  ○ State of Florida Erosion and Sediment Control Manual
	Design detail of drainage and erosion control features and scour design at bridge openings.

• Volume 2 of the Environmental Resource Permit Applicants Handbook for the South Florida Water Management District • Chapter 62-777 of the Florida Administrative Code currently in use on Grand Cayman	Detailing environmental water quality treatment requirements
• FDOT Standard Specifications for Road and Bridge Construction • FDOT Construction Project Administration Manual • EPA Stormwater Pollution Prevention Plan (SWPPP) Standards and Templates • Volume 1 of the Environmental Resource Permit Applicants Handbook for the Florida Water Management Districts	Guidance on managing construction site pollution.

Table 5: Additional Standards and Manuals

Standards and Manuals	Application	Source
• General Environmental Health and Safety Guidelines	Guidance on water quality standards.	International
• EIA Directive	Requirements and directives for EIA's.	Cayman Islands
• Ontario Stormwater Management Planning and Design Manual	Guidance on stormwater system design.	Canada
• British Columbia's Stormwater Planning Guidebook	Guidance on stormwater treatment.	Canada
• City of Moncton Design Criteria Manual for Municipal Services	Guidance on stormwater system design.	Canada
• Department for Environment Food and Rural Affairs River Basin Management Plans	Guidance on stormwater treatment.	UK
• Department for Environment Food and Rural Affairs Non-Statutory Technical Standards for Sustainable Drainage Systems	Guidance on stormwater treatment.	UK
• DMRB LA 113 Road Drainage and the Water Environment	Guidance on stormwater system design.	UK

5.7.2 ES Documented Impacts

5.7.2.1 Studies and Modelling

Several studies and modelling efforts were performed to assess potential project impacts, including flooding from rainfall, storm surge and coastal flooding, and a water budget analysis for the Central Mangrove Wetland (CMW). In addition, an initial groundwater mounding analysis of the freshwater lenses was completed.

Summary of these studies are as follows:

- The flooding from rainfall, storm surge and coastal flooding was modelled for the proposed roadway and the potential bridges for different storm events. The 50-year return period storm, which means a storm that has a 2% probability of occurring in any given year, was selected as the design storm.
- The rainfall flooding results generally showed that the water is slightly deeper, and the water surface elevation is slightly higher on the south side of the proposed new roadway than the north side of the roadway. In addition, the western end of the Proposed Project is more likely to block water flow than the middle or eastern end of the Proposed Project. Overall, it was projected that the water moves relatively slow during rainfall flooding.
- The storm surge analysis included flooding from hurricanes from both rainfall and surge. The results of the modelling indicated that the Proposed Project would mostly be affected by storm surge coming from North Sound. It was projected that the new roadway would not be flooded by moderate storms (25-year) but would be flooded by larger storms (100-year). In addition, after the roadway is built, the maximum flood elevation is generally slightly lower than Baseline Conditions, but it takes longer for the water to drain away. Also, it was projected that the water level would be higher on the south side of the roadway at the western extent of the project.
- Wave overtopping of existing coastal roads not only requires coastal road closure due to standing water on the road but also involves sediment deposition (such as sand) on the road, requiring a much longer time to clear and re-open the road.
- The water budget analysis found that the Central Mangrove Wetland (CMW) pool and surface water elevation were not projected to be significantly affected by the Proposed Project.
- The groundwater mounding analysis found that the Proposed Project may have a minimal impact on the upper surface of both the Lower Valley and North Side freshwater lenses.
- One drainage well is located along the Proposed Project near Frank Sound Road. This well could be affected by construction activities. However, the anticipated inclusion of drainage systems as part of the detailed design would result in this impact not having a significant effect.

5.7.2.2 Construction Phase

The projected possible impacts from constructing the Proposed Project include:

- Changes to surface water patterns that could increase local flood risk. The Proposed Project is estimated to include 145 acres (59 acres) of impervious surface area.

- Construction equipment releasing pollution that could harm surface waters, nearby natural and development areas, and groundwater/freshwater lenses.
- Stormwater runoff may contain eroded soil that could harm surface waters and nearby natural and development areas.
- Construction equipment can pack down soil, which might add to the stormwater runoff.
- Rainfall or extreme weather could cause flooding of construction sites.
- One existing drainage well located along the Proposed Project near Frank Sound Road could be affected and may need to be removed.

5.7.2.3 Operation Phase

The projected possible impacts from operating the Proposed Project include:

- Changes to surface water and drainage patterns that could change regional flood risk. A slight increase in the maximum floodwater levels and duration of flooding was estimated, however they are within acceptable tolerances for the scale of storms considered.
- Surface water pollution from vehicles on the proposed road, which could contaminate soil and harm nearby natural and developed areas.
- More and faster runoff which could add to erosion and flooding.
- Changes to water flow, water levels, and surface drainage that could harm the CMW, Mastic Reserve, and Meagre Bay Pond. The estimated length of roadway through the CMW for the Proposed Project is 2.8 miles (4.5 kilometres).
- Ecological changes that could harm natural resources
- Loss of mangroves within the project footprint. The Proposed Project is estimated to directly impact 76 acres (31 hectares) of the CMW [out of a total area of 8,655 acres (3,502 hectares)].

5.8 Terrestrial Ecology

5.8.1 Standards and Guidelines

The methods included a desktop review to determine locations of field verification points for a second field review, field review to document habitat type and quality based on use of the Uniform Mitigation Assessment Method (UMAM), updating the habitat map for the Proposed Project based on the collected field data, conducting a functional assessment of the habitats within the Proposed Project based on UMAM analysis conducted on the 2023 and 2024 field verification points, a qualitative assessment based on the UK Department for Transport's WebTAG, and a monetary assessment based on the 2020 Cayman Islands Ecosystem Accounting.

Standards and guidelines:

- Uniform Mitigation Assessment Method (UMAM) to calculate functional ecological loss throughout subsequent stages of the Proposed Project and No Net Loss in Biodiversity
- UK Department for Transport's WebTAG to conduct the qualitative assessment
- 2020 Cayman Islands Ecosystem Accounting to conduct the monetary assessment

5.8.2 ES Documented Impacts

5.8.2.1 Construction Phase

The projected possible impacts from constructing the Proposed Project include:

- Loss of habitat function due to clearing of land and earthwork. The habitats affected include up to:
  - 90.08 acres (36.45 hectare) of man-modified land uses,
  - 5.34 acres (2.16 hectare) of upland habitats, and
  - 150.24 acres (60.8 hectare) of wetland habitats.
- Loss of ecosystem services due to the clearing of land and earthwork. For the purpose of this evaluation, ecosystem services were measured in functional units, which represent the current ecosystem functionality and the acreage of impact. Loss of ecosystem services due to the Proposed Project would result in an estimated 93.27 to 189.24 functional units being lost. These functional units can be considered in determining the amount of mitigation needed to offset the loss of function resulting from the Proposed Project.
- Loss of up to 80.7 acres (32.7 hectare) of habitat used by the Grand Cayman Parrot due to clearing of land and earthwork.
- Invasive species spread from construction vehicles, equipment, and materials. Invasive species are not native to Grand Cayman and have a negative impact on biodiversity. The species of concern include (but are not limited to) Brazilian pepper (*Schinus terebinthifolia*), wild tamarind (*Leucaena leucocephala*), and Australian pine (*Casuarina equisetifolia*).
- Noise and light pollution from construction activities may disrupt the natural behaviours of nearby wildlife.

5.8.2.2 Operation Phase

The projected possible impacts from operating the Proposed Project include:

- Habitat fragmentation (splitting), with the roadway acting as a barrier that limits species from being able to move between habitat areas. The Proposed Project traverses undeveloped land in the CMW. An estimated 571.0 acres (231.1 hectare) of habitat would be fragmented, leaving 8,000 acres (3,273 hectare) of contiguous CMW (92.4%) remaining.
- Vehicle crashes with wildlife species.
- The water flow between habitats becoming disconnected. Natural flow paths, such as the flushing of Meagre Bay Pond into the CMW and the fresh/salt water hydrologic gradients in the CMW, may be altered by the Proposed Project.
- Noise and light pollution from operation may disrupt the natural behaviours of nearby wildlife.

5.9 Cultural and Natural Heritage

5.9.1 Standards and Guidelines

Relevant Cayman Islands laws, standards and frameworks, UK standards and guidelines, and international standards were reviewed to determine the appropriate assessment of heritage resources. The laws, policies, and standards assessed include:

5.9.1.1 Cayman Islands Laws and Standards

Cayman Islands Laws

- NT Act 2010 Revision
- NCA 2013
    - Species conservation plans
    - Management plans
- Directive for Environmental Impact Assessments 2016
- Public Lands Act 2020 Revision
- Development and Planning Act 2021 Revision

Cayman Islands Plans and Frameworks

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

5.9.1.2 UK and International Standards

UK Standards and guidelines

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

International Standards

- ***International Finance Corporation*** - Performance Standards (PS)s on Environmental and Social Sustainability (2012)
    - PS 1, 6, and 8
- ***UNESCO - the International Centre for the Study of the Preservation and Restoration of Cultural Property; the International Council on Monuments and Sites; and the International Union for Conservation of Nature (UNESCO et al.)*** World Heritage Resource Manual: Guidance and Toolkit for Impact Assessments in a World Heritage Context
- ***Institute of Environmental Management and Assessment*** - Principles of Cultural Heritage Impact

5.9.2 ES Documented Impacts

5.9.2.1 Construction Phase

- Construction activities can have direct and indirect impacts on the heritage value of identified resources. The projected possible impacts from constructing the Proposed Project include: The Proposed Project is estimated to impact up to 75.7 acres (30.6 hectares) of CMW and fragment up to 571.0 acres (231.1 hectares) of CMW as an indirect

impact. Which would leave 8,000 acres (3,237.4 hectares) of contiguous habitat remaining (92.4% of the resource). While the CMW would experience a negative effect from this direct loss and fragmentation, the CMW's overall integrity and heritage would remain intact for future generations given the amount of contiguous resource remaining.

- Possible additional indirect impacts from the construction phase may include introducing invasive species, altering hydrology, adding construction noise, or impacting the viewshed. These potential construction impacts are described in other sections of this report, including Terrestrial Ecology, Hydrology and Drainage, and Noise and Vibration. These indirect impacts can degrade ecosystem quality and people's enjoyment of the resource, but overall it is projected that these impacts would not be severe enough to compromise the heritage value of the CMW.
- Direct impacts to the Mastic Trail from the Proposed Project would not occur. However, indirect noise impacts from construction from the eastern portion of the new roadway may have the potential to occur to the natural areas surrounding the Mastic Trail.
- The other identified resources are not projected to experience construction impacts.

5.9.2.2 Operation Phase

The projected possible positive impacts from operating the Proposed Project include:

- With improved access provided by the Proposed Project, more visits from tourists can popularise heritage resources like the Mastic Trail and Meagre Bay Pond, which further promotes the heritage resource's overall value.
- Meagre Bay Pond is located along the existing roadway network (Bodden Town Road) and already experiences noise at a significant observable adverse effect level at the viewing platform under the 2026 No-Build scenario. The Proposed Project is predicted to provide a noise benefit (reduction) to this area in 2026.

Similar to the construction phase, negative impacts from the operations phase could harm these resources' heritage values. The projected possible negative impacts from operating the Proposed Project include:

- Noise receptors near the Mastic Trail are projected to experience an increase in roadway noise between 2026 and 2074 of more than 10 decibels. However, the Mastic Trail noise levels are projected to remain below the significant observable adverse effect level.
- The Proposed Project would separate Meagre Bay Pond from the CMW, a connection which is currently contiguous. Because Meagre Bay Pond is considered a separate heritage resource from the CMW, this separation would not adversely affect its heritage value.
- Alterations to hydrology, such as the connection between Meagre Bay Pond and the CMW, can affect ecosystem function. As a result of the Proposed Project, Meagre Bay Pond could experience a hydrologic disconnect from the CMW. With the use of the mitigation considerations identified in Hydrology and Drainage, including the use of bridging, hydrologic flow may be maintained, which would maintain the heritage value of the resource.

6 General Consultation Thresholds

The below general thresholds would be coordinated with the EAB to ensure that environmental standards are integrated throughout the project development. By establishing these general consultation thresholds, the project efforts would include proactive engagement with the EAB, facilitating compliance with environmental regulations and fostering sustainable project outcomes. Additional specific thresholds are provided within **Section 7: Record of Environmental Actions and Commitments**, next to the related actions/commitments.

- **Introduction of New Materials or Techniques:** Any proposal to use new construction materials or techniques that could have environmental impacts not accounted for in the ES will be coordinated with the EAB.
- **Significant Design Changes:** Major modifications to the project design, such as alterations to the road layout, access points, bridge design, or the introduction of additional structures, will be coordinated with EAB coordination for compliance with environmental regulations.
- **Hydrological Changes:** Changes in drainage design, stormwater management systems, or any modifications which would significantly affect water bodies will be coordinated with the EAB in an effort to protect aquatic ecosystems, including mangroves, and water quality.
- **Implementation of Noise Reduction Measures:** Proposals for implementing or altering noise barriers or other noise mitigation strategies will be coordinated with EAB.
- **Landscaping and Re-vegetation Plans:** Plans involving landscaping, particularly those introducing non-native species or altering large areas of land, will be coordinated with the EAB in an effort to promote ecological balance and biodiversity.
- **Introduction of Sustainability Measures:** Implementation of sustainability measures such as solar-powered systems, recycling protocols, or the use of environmentally friendly materials will be coordinated with EAB.
- **Impact on Protected Areas:** Any construction activities near or within protected environmental areas or habitats for endangered species will be coordinated with the EAB.
- **High Impact Construction Phases:** Stages of the project expected to have significant environmental impacts, such as major earthworks or the use of heavy machinery in sensitive areas, will be coordinated with the EAB.
- **Public Concerns and Environmental Complaints:** Issues raised by the public or environmental groups concerning the project's environmental impact may involve EAB consultation.
- **Impacts Beyond the Limits of Disturbance:** Any proposed project impacts anticipated outside of the Limits of Disturbance evaluated within the ES will require re-evaluation and approval by the EAB to address potential unforeseen environmental impacts.
- **Additional Structural Impacts:** Any additional structural impacts outside of the three identified acquisitions identified in the ES that were not initially anticipated will require EAB coordination.
- **Highway Lighting Design and Layout:** Will require EAB coordination of lighting designs.

- **Hydrologic/Hydraulic Modelling:** The hydrologic and hydraulic modelling based on the detailed highway design and updated information, including the detailed topographic surveying and geotechnical investigation, will be coordinated with the EAB.
- **Stormwater Drainage Design:** The proposed drainage design and stormwater management systems will be coordinated with the EAB in an effort to protect aquatic ecosystems and water quality.
- **Erosion and Sediment Control:** The erosion and sediment prevention plan, including SWPPP or similar, to reduce soil erosion during construction will be coordinated with the EAB in an effort to protect aquatic ecosystems and water quality.
- **Design Environmental Protection Measures:** Proposed methods during construction to maintain existing drainage patterns and hydrologic connectivity, protect water quality, minimise soil compaction, and minimise flooding will be coordinated with the EAB in an effort to protect aquatic ecosystems and water quality.
- **Hydrological Changes:** Changes in drainage design, stormwater management systems, or any modifications affecting water bodies will be coordinated with the EAB in an effort to protect aquatic ecosystems and water quality.
- **New Data Collection:** Any additional data collection that results in new information about impacted habitats or important species that were included in the ES evaluation will be coordinated with the EAB in an effort to protect resources.
- **Regulatory Changes**: Changes in law, policy, or regulation with an effect on the project (such as but not limited to, environmental, planning, social) may involve EAB consultation to determine how the new law, policy, or regulation affects the project's environmental compliance moving forward.
- **New Resources Identified:** Any new resources identified within the LOD, such as cultural heritage resources, new important species, etc., that were not studied in the ES, will be coordinated with the EAB in an effort to protect resources.

7 Record of Environmental Actions and Commitments

This section provides a summary and register of mitigation measures identified within the ES for the Proposed Project, presented as actions/commitments. This list will be updated and expanded upon as necessary within the First, Second and Third Iteration EMPs.

The record of environmental actions/commitments table (**Table 6**) provides:

- The ES Chapter Reference for location within the published ES
- A general description of the effect/impact being addressed
- The specific thresholds from the ES
- A general description of the action/commitment
- How the action will be implemented
- The responsible party for implementation
- The specific achievement criteria
- The reporting requirements
- When in the process the action/commitment will be completed
- Completion date to track actions/commitments

Table 6. Record of Environmental Actions and Commitments

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_1	Transportation and Mobility, Section 7.5 of the ES	The Proposed Project negatively impacts three intersections outside of the project limits based on Level of Service criteria due to an increase in traffic demand and volumes.	Improvements listed within **Table 2: Proposed Project Additional Improvements for Existing Intersections, Section 5.2**.	Improvements are recommended to mitigate these impacts, including traffic signals, additional turn lanes, and a multilane roundabout with bypass lanes.	NRA to design and construct the proposed intersection improvements prior to each listed analysis year, or as demand requires (See **Table 2: Proposed Project Additional Improvements for Existing Intersections, Section 5.2**).	NRA	Intersections improved as listed within **Table 2: Proposed Project Additional Improvements for Existing Intersections, Section 5.2.**	Information to be included in the final design report.	DD	Initial: Date:
EWA_2	Socio-Economics, Section 8.4 of the ES	Loss of the Frank Sound Fire Station due to construction of the Proposed Project	Threshold not currently available.	A new fire station could be constructed in the same vicinity to replace the Frank Sound Fire Station. This station could include the same or better functionality and capacity to address emergencies and could serve the same population as the current station. Coordination with the Ministry of Home Affairs and the Cayman Islands Fire Service would need to occur to ensure the new location provides adequate emergency coverage to the Eastern districts.	NRA to coordinate with the Ministry of Home Affairs and the Cayman Islands Fire Service for implementation. Detailed design to include existing fire station demolition works within the bid documents.	NRA Designer PC	New Fire Station constructed and opened. Inclusion of fire station demolition works within the bid documents. Compliance with the bid documents.	N/A Development of First Iteration EMP. Compliance with the First Iteration EMP. Development of the Second Iteration EMP.	DD, P, C	Initial: Date: Initial: Date: Initial: Date:
EWA_3	Socio-Economics, Section 8.4 of the ES	Temporary road closures and traffic diversions at the Proposed Project's eastern and western tie-ins, as well as the Will T Connector, may lead to transportation delays and potential frustration for commuters. Future build years necessitate phased traffic patterns, which could include lane shifts and periodic closures to accommodate construction activities.	Threshold not currently available.	Actions include: • Communication, • Signage, • Traffic diversions, • Rapid construction techniques, • Time of day restrictions	Inclusion of temporary road closure and traffic diversion evaluation within the First and Second Iteration EMP	Designer PC	Inclusion of listed actions within the First Iteration EMP. Implementation of the First Iteration EMP and development of the Second Iteration EMP.	Development of First Iteration EMP. Compliance with the First Iteration EMP. Development of the Second Iteration EMP.	P, C	Initial: Date: Initial: Date:

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_4	Socio-Economics, Section 8.4 of the ES	Utilisation of foreign workers or businesses may cause economic hardship to the Caymanian workforce and Caymanian businesses, including effects like occupying housing.	75% Caymanian vs. 25% immigrant workers (Section 8.4 of the ES).	Promote the utilisation of local workforce and encourage local businesses to contribute as much as possible to the project. This can be done by requiring prioritization of a Caymanian workforce. The NRA estimates that the distribution of businesses, suppliers, and workers would be 75% Caymanian vs. 25% immigrants. Utilisation of outside sources is likely to be required for tasks that require specialized staff (e.g. bridge construction).	Inclusion of workforce utilization targets within the proposal and contract selection.	NRA PC	Workforce utilization targets included within the proposal and contract selection.	Development of proposal and contract selection materials. Compliance with proposal and contract selection materials.	P, C	Initial: Date: Initial: Date:
EWA_5	Socio-Economics, Section 8.4 of the ES	Updated planning/zoning policies may lead to development that adversely impacts existing communities and natural resources.	Threshold not currently available.	Reviewing existing planning and zoning policies and regulations to account for project components and providing recommendations for updates or revisions. Options include recommending specific economic growth/development areas and identifying potential environmental protection areas.	Monitoring and update of planning/zoning policies and regulations.	NRA / Designer / PC / EAB	Maintain working compendium of and compliance with all policy and regulatory changes.	Keep record of project changes due to new regulation or policy.	A	Initial: Date:

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EWA_6	Socio-Economics, Section 8.4 of the ES	Changes to future zoning may lead to development that adversely impacts existing communities and natural resources, or that places new development in areas unsuited for development (e.g. prone to flooding, too close to roadway facility).	Threshold not currently available.	Recommending updates or new policies to encourage the location of new developments that would minimise impacts to existing communities and natural resources, while promoting resilient future communities. Options include: • recommending lot-size limits; • recommending localized anti-displacement policies; • recommending re-zoning appropriate areas (e.g. man-modified without trees land use) for denser development • recommending re-zoning dense mangrove areas as areas unsuitable or less suitable for development; • recommending housing construction requirements such as foundation elevations and flood-resistant materials; • recommending setbacks between housing and roadway facilities to reduce or eliminate roadway noise disturbance.	Monitoring and update of planning/zoning policies and regulations.	NRA / Designer / PC / EAB	Maintain working compendium of and compliance with all zoning changes.	Keep record of project changes due to new zoning.	A	Initial: Date:
EWA_7	Socio-Economics, Section 8.4 of the ES	For the areas within the Will T Connector area, pedestrians may experience a degree of community severance as more vehicles use the Will T Connector facility	Threshold not currently available.	Evaluation of potential pedestrian crossing locations to reduce severance along the corridor. Pedestrian crossings at key locations would maintain neighbourhood connectivity and offer safe pedestrian options for within-neighbourhood travel.	Designer to include evaluation of potential pedestrian crossing locations in the detailed design phase.	Designer PC	Potential pedestrian crossing locations to be included in the final design report and First Iteration EMP. Implementation of final design report and First Iteration EMP	Develop detailed design plans and First Iteration EMP. Compliance with final design report and First Iteration EMP	DD, C	Initial: Date: Initial: Date:

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EWA_8	Noise and Vibration, Section 9.4 of the ES Terrestrial Ecology, Section 13.6 of the ES	Operational noise: Limit the change in noise level due to the operation of the proposed roadway corridor.	Noise SOAEL (68 dBA) impacts at or below values within Section 9.3 of the ES. 2026: 82 noise sensitive receptors at or above SOAEL. 2074-Medium: 279 noise sensitive receptors at or above SOAEL (**Figure 6**).	Design related mitigation measures for further consideration during the detailed design phase include alteration of the roadway alignment, traffic speed control, and pavement materials.	Designer to include evaluation of potential design refinements in the detailed design phase and calculate final noise impact values.	Designer PC	Information to be included in the final design report and First Iteration EMP. Implementation of final design report and First Iteration EMP.	Final noise impacts to be included in the final design report. Compliance with final design report and First Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_9			Threshold not currently available. ES assumed a cost effectiveness of a maximum of 2,000 square feet of noise barrier per benefitted receptor (5 dBA or greater noise reduction).	Traffic noise barriers were evaluated as part of the EIA and a $1.5 million "Potential Noise Mitigation" line item was included within the estimated project costs. Based on the 2060 re-evaluation, the "Potential Noise Mitigation" budget could be utilised for a noise barrier, or alternative noise reduction measures (e.g., road surfacing, home insulation) based on cost-effectiveness and public input.	Designer to include evaluation of potential traffic noise mitigation within the final design report.	Designer PC	Information to be included in the final design report and First Iteration EMP. Implementation of final design report and First Iteration EMP.	Traffic noise mitigation measures to be included within the final design report and First Iteration EMP Compliance with or update of the final design report and First Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_10			SOAEL (68 dBA) contour line	Noise-compatible land use planning is a possible means to avoid future traffic noise impacts. Recommend that the SOAEL estimated contour line in undeveloped areas be provided to the Cayman Islands Department of Planning.	Detailed designer to calculate final noise impact values and estimated SOAEL contour line for undeveloped areas.	Designer	Provide SOAEL estimated contour line to the Cayman Islands Department of Planning.	SOAEL estimated contour line provided to the Cayman Islands Department of Planning.	DD, P	Initial: Date:

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EWA_11	Noise and Vibration, Section 9.4 of the ES	Temporary noise level increases due to construction equipment, delivery vehicles, and commuting crew members may be experienced by noise sensitive receptors within the identified noise study area.	Greater than Minor (≥ 1 and < 3) to Moderate (≥ 3 and < 5) magnitude of change in dBA (Section 9.3.1.1 of the ES).	Best practice noise mitigation techniques including: 1) training of site personnel to raise awareness of noise and nearby noise sensitive receptors; 2) provision of information to the public on expected construction noise, including duration, especially to those likely to be exposed to moderate and major magnitude of effect. Additional noise mitigation measures for consideration within Detailed Design: 1) specification of the use of noise reduction construction methods, for example: specifying the use of rotary rather than driven piling; 2) provision of measures to reduce the noise reaching noise sensitive receptors, for example: installation of temporary barriers; 3) restriction of some activities to less sensitive times, for example: restricting piling activity to the daytime only; 4) providing noise insulation to houses, or temporarily rehousing local residents.	Best practice noise mitigation techniques to be included within the Environmental Awareness Training for site personnel. Additional noise mitigation measures for consideration would be defined within the First and Second Iteration EMP.	Designer PC	Inclusion of best practice noise mitigation techniques within the bid documents. Implementation of noise mitigation techniques within the bid documents.	Development of First Iteration EMP Compliance with or update of the First Iteration EMP and development of the Second Iteration EMP	DD, C	Initial: Date: Initial: Date:

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EWA_12	Noise and Vibration, Section 9.4 of the ES	Vibrations due to construction activities may reach levels of perception and annoyance to the general population in areas closest to the source.	Use of vibratory equipment within the screen distances shown within **Table 3: Magnitude of Vibration Impact Screen Distances, Section 5.4.2.1**.	Best practice vibration mitigation techniques including: 1) selection of construction method and plan to minimise vibration generated; 2) training of site personnel to raise awareness of vibration and nearby vibration sensitive receptors; 3) provision of information to the public on expected construction vibration, including duration, especially to those likely to be exposed to moderate and major impacts. Additional vibration mitigation measures for consideration within Detailed Design: 1) restrictions on construction method to reduce vibration; 2) restrictions of some activities to less sensitive times, for example, restricting piling activity to the daytime only; 3) temporarily rehousing local residents.	Best practice vibration mitigation techniques to be included within the Environmental Awareness Training for site personnel. Additional vibration mitigation measures for consideration would be defined within the Frist and Second Iteration EMP.	Designer PC	Inclusion of best practice vibration mitigation techniques within the bid documents. Implementation of vibration mitigation techniques within the bid documents.	Development of First Iteration EMP Compliance with or update of the First Iteration EMP and development of the Second Iteration EMP	DD, C	Initial: Date: Initial: Date:
EWA_13	Greenhouse Gas Emissions, Section 10.4 of the ES Geo-Environmental, Section 11.4 of the ES	Removal of peat	Direct impact quantity of peat removal greater than 441,579 cubic yards (337,612 cubic meters) described in Section 11.3 of the ES.	Designer to include updated peat excavation estimates during the detailed design phase. PC to utilise excavated peat for onsite/offsite utilisation, restoration and/or recycling.	Designer to calculate peat excavation estimates during the detailed design phase. Utilisation of excavated peat to be included within the First and Second Iteration EMP and Materials Management Plan	Designer PC	Peat volume lower than threshold. Inclusion of excavated peat utilisation within the Second Iteration EMP and Materials Management Plan.	Development of First Iteration EMP and Materials Management Plan. Compliance with or update of the First Iteration EMP and Materials Management Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_14	Greenhouse Gas Emissions, Section 10.4 of the ES	Removal of vegetation during construction	ES established LOD corridor width of 220 ft (67.1 m; Section 5.3.2 of the ES)	Minimise vegetation clearing; Re-vegetate temporary construction areas	Refine anticipated work limits. Replanting/grading of areas of temporary impact within the corridor.	Designer PC	Work limits, and enhancement/restoration areas included within detailed design plans. Implementation of the detailed design plans.	Develop detailed design plans. Compliance or update of detailed design plans	DD, C	Initial: Date: Initial: Date:

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EWA_15	Greenhouse Gas Emissions, Section 10.4 of the ES	Material Use	Threshold not currently available.	Ensuring efficient use of materials (i.e., "right-sizing"). Utilising sustainable materials	Designer to include evaluation of efficient material use and sustainable materials within the detailed design phase.	Designer	Optimised material estimates within the bid documents, including sustainable materials as appropriate.	Develop detailed design plans.	DD	Initial: Date:
EWA_16	Greenhouse Gas Emissions, Section 10.4 of the ES	Machinery	Threshold not currently available.	Maintaining machinery frequently or replacing with newer machinery or retrofit engines.	Machinery maintenance, replacement, and/or retrofitting.	PC	Construction equipment is maintained, replaced, and/or retrofitted.	Compliance with or update of the First Iteration EMP.	C	Initial: Date:
EWA_17	Greenhouse Gas Emissions, Section 10.4 of the ES	Vehicular Fleet	Threshold not currently available.	Policy or regulations to promote a vehicular fleet composition with less GHG emissions.	Monitoring and update of vehicular fleet policies and regulations.	NRA / PC / Designer / EAB	Maintain working compendium of and compliance with all vehicle fleet regulations or policy.	Keep record of project changes due to new vehicle fleet regulations or policy.	O	Initial: Date:
EWA_18	Greenhouse Gas Emissions, Section 10.4 of the ES	Traffic Movements	Threshold not currently available.	Optimisation of traffic movements within the corridor to reduce GHG emissions.	Monitoring and update of the Grand Cayman Travel Demand Model throughout the project lifecycle.	NRA	Update of Grand Cayman Travel Demand Model at appropriate intervals throughout the project lifecycle.	None	O	Initial: Date:
EWA_19	Geo-Environmental, Section 11.4 of the ES Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Control the release of contaminants during construction may affect peat, surface waters, sensitive habitat, groundwater quality, and the underlying aquifers.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Develop best practice pollution prevention techniques, including hydrocarbon leaking control mats; regular inspection of construction equipment; identification of areas for maintenance, re-fuelling and storage away from natural resources; development and implementation of a spill emergency and response plan and/or a complete SWPPP.	Inclusion of best practice pollution prevention technique within the First and Second Iteration EMP/SWPPP	Designer PC	Inclusion of best practice pollution prevention technique within the bid documents. Implementation of best practice pollution prevention technique within the bid documents.	Development of First Iteration EMP/SWPPP Compliance with or update of the First Iteration EMP/SWPPP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_20	Geo-Environmental, Section 11.4 of the ES	Dewatering for excavation for foundations may cause decline in groundwater levels and quality.	Threshold not currently available.	Develop best practice pollution prevention techniques. Instrumentation monitoring and control during the construction.	Inclusion of best practice pollution prevention technique and instrumentation monitoring and control within the First and Second Iteration EMP/SWPPP	Designer PC	Inclusion of best practice pollution prevention technique within the bid documents. Implementation of best practice pollution prevention technique within the bid documents.	Development of First Iteration EMP/SWPPP Compliance with or update of the First Iteration EMP/SWPPP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:

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EWA_21	Geo-Environmental, Section 11.4 of the ES	Construction may require drilling for deep foundations, which could cause contamination between layers of groundwater.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Grout drilled holes in accordance with regulations. Instrumentation monitoring and control during the construction.	Inclusion of grout drilled hole requirements and instrumentation monitoring and control within the First and Second Iteration EMP/SWPPP	Designer PC	Inclusion of grout drilled hole requirements and instrumentation monitoring and control within the bid documents. Implementation of the grout drilled hole requirements and instrumentation monitoring and control within the bid documents.	Development of First Iteration EMP/SWPPP Compliance with or update of the First Iteration EMP/SWPPP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_22	Geo-Environmental, Section 11.4 of the ES Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Soil compaction may cause reduced infiltration and increase runoff, which may impact groundwater, peat, and the freshwater lenses.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Reduction in soil compaction with the use of low-impact construction vehicles, construction access mats or other construction vehicle load distribution methods. Avoid placing staging and stockpile areas on or near freshwater lenses and peat.	Inclusion of soil compaction reduction techniques within the First and Second Iteration EMP/SWPPP	Designer PC	Inclusion of soil compaction reduction techniques within the bid documents. Implementation of the soil compaction reduction techniques within the bid documents.	Development of First EMP/SWPPP. Compliance with or update of the First Iteration EMP/SWPPP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_23	Geo-Environmental, Section 11.4 of the ES	Inadvertent draining of the lenses into underlying Karst formations	Threshold not currently available.	Comprehensive subsurface (i.e., drilling) geotechnical investigations to determine the underlying stratigraphy.	Inclusion of geotechnical investigations within the detailed design phase.	Designer	Evaluation of geotechnical investigations to produce detailed design plans.	Detailed design plan to report the geotechnical investigation results	DD	Initial: Date:
EWA_24	Geo-Environmental, Section 11.4 of the ES	Release of hydrogen sulphide during activities disturbing peat.	Threshold not currently available.	Recommend portable hydrogen sulphide detectors and personal protection equipment during peat disturbance.	Inclusion of portable hydrogen sulphide detectors and personal protection equipment during peat disturbance requirements within the First and Second Iteration EMP	Designer PC	Inclusion of portable hydrogen sulphide detectors and personal protection equipment during peat disturbance requirements within the bid documents. Implementation of the portable hydrogen sulphide detectors and personal protection equipment requirements within the bid documents.	Development of First Iteration EMP Compliance with or update of the First Iteration EMP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:

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EWA_25	Geo-Environmental, Section 11.4 of the ES	Contamination of groundwater due to contaminant spills and infiltration of road runoff. Groundwater mixing with infiltrating stormwater could also degrade water quality.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Design measures to maintain water quality in discharged water. Develop pollution prevention techniques. Detailed design of the localised drainage systems so that Site discharge to ground and surface water meets applicable water quality discharge criteria. Include protocols for potentially contaminative on-site activities. Prepare a waste management plan inclusive of emergency situations.	Inclusion of best practice pollution prevention technique within the First and Second Iteration EMP/SWPPP Inclusion of potentially contaminative activities within the Site Waste Management Plan and Spill Emergency and Response Plan.	Designer PC	Inclusion of best practice pollution prevention technique and potentially contaminative activities within the bid documents. Implementation of the best practice pollution prevention technique and potentially contaminative activities requirements within the bid documents.	Development of First Iteration EMP, SWPPP, Site Waste Management Plan and Spill Emergency and Response Plan Compliance with or update of the First Iteration EMP, SWPPP, Site Waste Management Plan and Spill Emergency and Response Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_26	Geo-Environmental, Section 11.4 of the ES	Groundwater flow loss and changes in flow patterns. Lenses may be damaged as sources of potable supply if the supporting groundwater flow system loses freshwater volume. This may cause salt-water contamination. Wells might be damaged as sources of potable supply.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Design project to minimise groundwater flow loss. Determine stormwater management options that minimise impacts on lenses. Ensure hydrological regimes are maintained and aquifers are recharged. Design stormwater systems to be effective with rising sea level.	Designer to include evaluation of groundwater flow loss or change in flow pattern within the Stormwater Management Plan.	Designer PC	Inclusion of Stormwater Management Plan within the bid documents. Implementation of Stormwater Management Plan within the bid documents.	Development of First Iteration EMP/ Stormwater Management Plan Compliance with or update of the First Iteration EMP/ Stormwater Management Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_27	Geo-Environmental, Section 11.4 of the ES	Construction in the lens recharge areas would cause direct impacts. Lenses might have their shapes, configurations, and discharge flow directions changed if discharge areas are disrupted.	Greater than 10.3 acres (4.2 hectares) of impact on the Lower Valley Lens recharge area, and any acreage of effect on the North Side Lens recharge area (Section 11.3 of the ES).	Measures should be taken to minimise impact on freshwater lenses during construction and to preserve discharge flow directions.	Designer to include evaluation of potential avoidance of mapped freshwater lens boundaries during the detailed design phase.	Designer	Impact acreage lower than the reported thresholds. Inclusion of mapped freshwater lens boundaries within the detailed design plans.	Detailed design plan to report the impact acreages within the mapped freshwater lens boundaries for each stage of construction and anticipated work limits.	DD	Initial: Date:

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EWA_28	Geo-Environmental, Section 11.4 of the ES	Increased impervious surface may reduce infiltration and groundwater recharge or redirect stormwater runoff. The water table may rise where water infiltrates. The project may impact drainage patterns and recharge rates if the project requires construction for conveyance of stormwater. The water table level could drop locally if infiltration was reduced due to new impermeable surfaces.	Greater than 145 acres (59 hectares) of total impervious surface area [including asphalt pavement area (for travel lanes, shoulders, micromobility path) and concrete pavement area (for sidewalks, bus stops, traffic separators and median barrier (Section 11.3 of the ES)]	Design project to facilitate infiltration by installing measures to direct stormwater towards recharge points. Design project to minimise the need for construction of conveyance.	Designer to include evaluation of impervious surface area reduction during the detailed design phase.	Designer	Impervious surface area acreage lower than the reported threshold. Inclusion of impervious surface area within the detailed design plans.	Detailed design plan to report acreages of impervious surface area for each stage of construction.	DD	Initial: Date:
EWA_29	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Temporary storage, stockpiling of materials and construction phases may change runoff patterns and locally increase flood risk	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Confirm the siting of temporary stockpiles; construction access and a temporary construction drainage plan to maintain existing drainage patterns and hydrologic connectivity throughout construction.	Inclusion of construction hydrologic plans and stockpile locations within the Construction Drainage Plan.	Designer PC	Inclusion of construction hydrologic plans and stockpile locations within the bid documents. Implementation of construction hydrologic plans and stockpile locations within the bid documents.	Development of First Iteration EMP/ Construction Drainage Plan Compliance with or update of the First Iteration EMP/ Construction Drainage Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_30	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Sediment-laden runoff may pollute surface waters and sensitive habitats	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Limiting vegetation clearing to active construction areas; Using best practice erosion/sedimentation prevention techniques; Regular inspection of erosion/sediment prevention devices; Repair of erosion/sediment prevention devices as needed; Stabilization of site after work has been completed; Regular inspection/monitoring integrated into consolidated SWPPP	Inclusion of best practice pollution prevention technique within the First and Second Iteration EMP/SWPPP.	Designer PC	Inclusion of best practice pollution prevention technique within the bid documents. Implementation of best practice pollution prevention technique within the bid documents.	Development of First Iteration EMP/SWPPP. Compliance with or update of the First Iteration EMP/SWPPP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:

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EWA_31	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Rainfall runoff, extreme weather and climate change induced flood events may inundate the construction site	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Consideration of site layout in the project detailed design; Grading of surfaces to direct floodwater away from equipment and evacuation routes; Creation of a flood hazard management plan	Inclusion of site layout consideration within the Construction Drainage Plan and/or Flood Hazard Management Plan.	Designer PC	Inclusion of site layout consideration within the bid documents. Implementation of site layout consideration within the bid documents.	Development of First Iteration EMP/ Construction Drainage Plan and/or Flood Hazard Management Plan Compliance with or update of the First Iteration EMP/ Construction Drainage Plan and/or Flood Hazard Management Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_32	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Roadway layout and opening configuration may change surface water and extreme weather drainage patterns and regionally change flood risk	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Detailed design of the localised drainage systems to handle flooding from smaller, more frequent storms; Detailed design of the road and the opening structures under the road to handle flooding from larger, more extreme storms; Design stormwater systems to be effective with rising sea level	Designer to consider both small and large storm events, along with sea level rise, within the Stormwater Management Plan	Designer PC	Inclusion of Stormwater Management Plan within the bid documents Implementation of Stormwater Management Plan	Development of First Iteration EMP/ Stormwater Management Plan Compliance with or update of the First Iteration EMP/Stormwater Management Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_33	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Vehicles on the proposed road may release contaminants that runoff and pollute surface waters, sensitive habitats and the underlying aquifers	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Design drainage infrastructure and stormwater management design to minimise water quality impacts; Potential use of Green Stormwater Infrastructure and Low Impact Design or Development (LID) approaches including linear treatment systems and landscape buffers to filter roadway runoff; Regular water quality monitoring in key locations	Designer to include drainage infrastructure and stormwater management within the Stormwater Management Plan	Designer PC	Inclusion of Stormwater Management Plan within the bid documents Implementation of Stormwater Management Plan	Development of First Iteration EMP/ Stormwater Management Plan. Compliance with or update of the First Iteration EMP/Stormwater Management Plan. Development of the Second Iteration EMP.	DD, O	Initial: Date: Initial: Date:

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EWA_34	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	Increase of stormwater runoff volume and velocity which may increase erosion and flooding in areas adjacent to the road	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Identify stable locations to discharge stormwater from the roadway; Provide armouring for the roadside slopes; Design scour protection and abutment protection for the roadway opening structures	Designer to include drainage infrastructure and stormwater management within the Stormwater Management Plan	Designer PC	Inclusion of Stormwater Management Plan within the bid documents Implementation of Stormwater Management Plan	Development of First Iteration EMP/ Stormwater Management Plan. Compliance with or update of the First Iteration EMP/Stormwater Management Plan. Development of the Second Iteration EMP.	DD, O	Initial: Date: Initial: Date:
EWA_35	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES Terrestrial Ecology, Section 13.6 of the ES	Impact on the hydrology of natural resources including alteration of water flow, water levels and surface drainage that may be harmful to the CMW, Mastic Reserve and Meagre Bay Pond. Impact on the ecology of natural resources including alteration of salinity levels, nutrient balance, oxygen concentration and temperature that may be harmful to mangroves, wildlife and other ecological resources.	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Design roadway openings to maintain water flow between both sides of the road; Use culverts or other “levelling” devices along the length of the corridor; Place openings to avoid hydrologic disconnection of wetlands and other impacts.	Designer to include evaluation of natural resources within the Stormwater Management Plan.	Designer PC	Inclusion of Stormwater Management Plan within the bid documents. Implementation of Stormwater Management Plan within the bid documents.	Development of First Iteration EMP/ Stormwater Management Plan. Compliance with or update of the First Iteration EMP/ Stormwater Management Plan. Development of the Second Iteration EMP.	A	Initial: Date: Initial: Date:
EWA_36	Hydrology and Drainage, Including Climate Resiliency, Section 12.5 of the ES	The loss of mangroves in the site footprint reduces transpiration, may decrease precipitation on the western end of the island, may increase runoff and could reduce floodplain roughness, which in turn could increase run-off velocity and reduce protection from tropical storms and hurricanes	Utilization of the referenced standards and guidelines in **Section 5.7.1: Standards and Guidelines**.	Use linear treatment systems to filter roadway runoff and minimise roadway footprint; Detailed erosion protection and roadway opening detailed design; Roadway opening and “levelling” device placement to avoid hydrologic disconnection of mangrove wetlands	Inclusion of linear treatment system and erosion protection requirements within the First and Second Iteration EMP/ Stormwater Management Plan.	Designer PC	Inclusion of Stormwater Management Plan within the bid documents. Implementation of Stormwater Management Plan within the bid documents.	Development of First Iteration EMP/ Stormwater Management Plan. Compliance with or update of the First Iteration EMP/ Stormwater Management Plan. Development of the Second Iteration EMP.	A	Initial: Date: Initial: Date:

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_37	Terrestrial Ecology, Section 13.6 of the ES	Minimise the clearing of land and earthwork required for construction, that is estimated to result in habitat functional loss.	Direct impact acreages for Upland Habitats or Wetland Habitats greater than: • Upland Habitats – 5.34 ac (2.16 ha) • Wetland Habitats – 150.24 ac (60.8 ha) • Man-modified – 90.08 ac (36.45 ha) For more detailed habitat impacts, please refer to Section 13.5.1 of the ES.	Refine anticipated work limits. Avoidance of high-quality habitats during detailed design.	Designer to include evaluation of potential avoidance of high-quality habitats during the detailed design phase based on the habitat mapping developed during the EIA process and additional data collection.	Designer	Impact acreages lower than the reported thresholds. Inclusion of habitat mapping developed during the EIA process within the detailed design plans.	Detailed design plan to report the impact acreages by habitat type for each stage of construction and anticipated work limits within the First Iteration EMP.	DD	Initial: Date:
EWA_38			Direct impact acreages for Upland Habitats or Wetland Habitats greater than: • Upland Habitats – 5.34 ac (2.16 ha) • Wetland Habitats – 150.24 ac (60.8 ha) • Man-modified – 90.08 ac (36.45 ha) For more detailed habitat impacts, please refer to Section 13.5.1 of the ES.	Clearly demarcate work limits at initiation of construction and minimise unnecessary vegetation clearing.	Demarcation of work limits at initiation of construction.	PC	Work limits are clearly demarcated and work remains within the limits.	Compliance or update of the First and Second Iteration EMP. Update the First and Second Iteration EMP if necessary based on information on site. As-Built plans.	C	Initial: Date: Initial: Date:
EWA_39			Threshold not currently available.	Delay impacts to the northern part of the corridor for as long as possible.	Designer to include evaluation of delay of high-quality habitats during the detailed design phase based on the habitat mapping developed during the EIA process.	Designer	Inclusion of habitat mapping developed during the EIA process within the detailed design plans.	Detailed design plan to report the impact acreages by habitat type for each stage of construction and anticipated work limits.	DD	Initial: Date:

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_40			Direct impact acreages for Upland Habitats or Wetland Habitats greater than: • Upland Habitats – 5.34 ac (2.16 ha) • Wetland Habitats – 150.24 ac (60.8 ha) • Man-modified – 90.08 ac (36.45 ha) For more detailed habitat impacts, please refer to Section 13.5.1 of the ES.	Functional "lift", as described in Section 13.6.1 of the ES, would be the primary form of mitigation proposed for unavoidable terrestrial habitat impacts; unless otherwise agreed upon with the EAB.	Detailed design to report the impact acreages by habitat type for each stage of construction. Detailed designer to establish mitigation requirements for each stage of construction.	Designer	Impact acreages lower than the reported thresholds. Establishment of mitigation which results in functional lift equal to functional loss for each stage of construction based on the Uniform Mitigation Assessment Methodology (UMAM).	Detailed design plan to report the impact acreages by habitat type for each stage of construction. Designer to coordinate mitigation requirements for impact acreages with the NRA and EAB for each stage of construction.	DD	Initial: Date: Initial: Date:
EWA_41			Threshold not currently available.	Enhance or restore temporarily impacted areas within the project corridor to obtain functional lift as much as possible. This could include land contouring, vegetative planting, or invasive species removal. Replanting/grading of areas of temporary impact within the corridor.	Detailed design plans to identify areas for anticipated enhancement/ restoration within.the First and Second Iteration EMP/LEMP for each stage of construction.	Designer PC	Enhancement/restoration areas included within detailed design plans. Implementation of the detailed design plans, Second Iteration EMP, and LEMP.	Develop detailed design plans, First Iteration EMP, and LEMP. Monitoring reports. Compliance or update of detailed design plans, First Iteration EMP, and LEMP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_42	Terrestrial Ecology, Section 13.6 of the ES	The Proposed Project is a new roadway that will traverse undeveloped land. Although avoided to the greatest extent practicable, the roadway could result in habitat fragmentation and create a barrier restricting species movement between habitat area following construction.	571 acres (231.1 hectares) of fragmentation to the mapped CMW boundary south of the Proposed Project (Section 13.5 of the ES)	Terrestrial habitat fragmentation can be minimised by shifting the corridor to avoid large tracts of contiguous habitat.	Designer to include evaluation of mapped CMW boundary within detailed design.	Designer	Detailed design plans show 571 acres (231.1 hectares) or less of fragmentation to the mapped CMW boundary south of the Proposed Project	Detailed designer to report the acreage of the mapped CMW boundary south of the Proposed Project.	DD	Initial: Date:

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_43	Terrestrial Ecology, Section 13.6 of the ES	Introduction or spread of invasive species within the study area	Threshold not currently available.	The spread of invasive species within the project area can be minimised by properly disposing of invasive species removed from the site and requiring construction equipment to be cleaned off-site. Additional mitigation measures include replanting/restoring cleared areas with native species. The complete exclusion of invasive species cannot be guaranteed due to the presence of invasive species within the EIA Study Area and greater Grand Cayman.	Best practice invasive species mitigation techniques to be included within the First and Second Iteration EMP and Invasive Species Management Plan.	Designer PC	Invasive species mitigation techniques included within the bid documents. Implementation of the invasive species mitigation techniques included within the bid documents.	Development of First Iteration EMP/ Invasive Species Management Plan. Compliance or update of First Iteration EMP/ Invasive Species Management Plan. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_44	Terrestrial Ecology, Section 13.6 of the ES	Construction activities typically result in the temporary increase in noise level due to construction equipment, delivery vehicles, and commuting crew members. Construction activities may also result in temporary visual effects, including vegetation removal and construction equipment, such as cranes.	Threshold not currently available.	Potential mitigation measure considerations for noise during construction can be found under the Noise and Vibration section. At this stage, the lighting for the Proposed Project is conceptual. However, light fixtures and luminaires can be chosen to greatly reduce the impact of night-time lighting on the surrounding habitats. Supplemental vegetative plantings could provide a visual screen to minimise visual impacts.	Evaluation of noise and light management within the First and Second Iteration EMP/ LEMP.	Designer PC	Noise and light management techniques included within the bid documents. Implementation of the noise and light management techniques included within the bid documents.	Development of First Iteration EMP/ LEMP. Compliance or update of First Iteration EMP/ LEMP. Development of the Second Iteration EMP.	DD, C	Initial: Date: Initial: Date:
EWA_45	Terrestrial Ecology, Section 13.6 of the ES	Potential for conflicts with important species through potential for roadway collisions.	Threshold not currently available.	Installation of wildlife demarcation and fencing to increase awareness and create main crossing points for wildlife. Collection of species mortality information during operations to identify crossing locations.	Evaluation of important species conflict management techniques within the First and Second Iteration EMP/ LEMP.	Designer PC	Important species conflict management techniques included within the bid documents. Implementation of important species conflict management techniques included within the bid documents.	Development of First Iteration EMP/ LEMP. Compliance or update of First Iteration EMP/ LEMP. Development of the Second Iteration EMP.	A	Initial: Date: Initial: Date:

ID	ES Chapter Reference	Effect / Impact	Threshold	Action / Commitment	Action Implementation	Responsible Party	Achievement Criteria	Reporting Requirement	When: Detailed Design (DD), Pre-Construction (P), Construction (C), Operation (O), All (A)	Completion Record
EWA_46	Terrestrial Ecology, Section 13.6 of the ES	The Proposed Project may result in visual effects to adjacent habitats from the introduction of traffic and pedestrian facilities.	Threshold not currently available.	Light fixtures and luminaires can be chosen to greatly reduce the impact of night-time lighting on the surrounding habitats and should be considered as the Proposed Project progresses. Vegetative screens can also be planted to minimise visual impacts.	Evaluation of viewshed management within the First and Second Iteration EMP/ LEMP.	Designer PC	Viewshed management techniques included within the bid documents. Implementation of viewshed management techniques included within the bid documents.	Development of First Iteration EMP/ LEMP. Compliance or update of First Iteration EMP/ LEMP. Development of the Second Iteration EMP.	DD, O	Initial: Date: Initial: Date:
EWA_47	Cultural & Natural Heritage, Section 14.4 of the ES	Wear and Tear on public access points to heritage resources due to additional tourist visits.	Threshold not currently available.	Mitigation of additional resident and tourist access to cultural heritage resource via tourist education materials, proper trail markers, guided tours, and informational signage.	Monitoring of heritage resources for wear and tear.	NRA / EAB	Coordination with heritage resource management body (e.g. National Trust).	Record of correspondence and coordination with heritage resource management body.	O	Initial: Date:

8 Environmental Awareness Training

Environmental awareness training for construction staff will be included within the site inductions and trainings for all personnel on the site, including site workers, visitors, and sub-contractors. The environmental awareness portion of the site induction will be developed by the PC Environmental Manager and reviewed by the NRA and EAB prior to the initiation of construction activities.

The following training list is not all -inclusive, and additional training may be needed based on environmental check reports or noted feedback of noncompliance. The environmental awareness training should generally include, but is not limited to:

- Site organisation and contact information
- Spill kit locations
- Emergency Response Plans
- Site traffic protocols and routes
- Wheel wash stations
- Staging locations
- Waste areas
- Limits of disturbance
- Terrestrial ecology and protected species
- Noise and vibration sensitive areas
- Erosion and sediment control
- Dust and emissions control
- Hydrogen sulphide and other chemical risks from peat removal
- Reporting of environmental observations

Additional opportunities for environmental awareness training include:

- Job-specific environmental trainings
- Lunch-and-learn topics for construction personnel
- Environmental briefings or alerts
- Presentation of inspection/compliance reports

9 Reporting and Record Keeping

9.1 Environmental Management System

The PC Environmental Manager is responsible for setting up an Environmental Management System (EMS) for inclusion with the Second Iteration EMP, and for assigning record keeping and reporting duties within the structure of the EMS.

The EMS provides a management platform for recording environmental monitoring and for tracking reported environmental incidents. NRA may provide an overarching quality management system under which the EMS will operate. The EMS will include methods for monitoring, recording, and implementing environmental management on site, and for responding to any noted areas of non-compliance.

Summary reporting documents, such as a Record of Environmental Monitoring and a Project Completion Report, will be produced by the PC, when appropriate.

9.2 Environmental Records Inspections

Records of compliance with the requirements of the Second Iteration EMP will be derived from audits and inspections that occur during the course of the project and will be recorded as part of the EMS. These documents will be available at the PC's site office and can be inspected by NRA or EAB, as needed.

9.3 Daily Inspection Checklist

To establish routine checks of the site and equipment, the PC will implement processes and protocols and delegate responsibilities. The PC will inform key staff of these procedures for routine checks of the site and equipment. Inspections and daily checks will be recorded. The PC will also delegate responsibility for corrective actions. Corrective actions will be implemented by responsible persons, in discussion with PC, and those actions will also be recorded. The record of checks and details will be reviewed by the PC Environmental Manager, NRA, and EAB, as necessary.

9.4 Procedures to Monitor Compliance

The PC and PC Environmental Manager will coordinate to maintain a Project Record, the purpose of which is to collect the formal records associated with implementing the Second Iteration EMP. Details pertaining to keeping the Project Record will be specified in the Second Iteration EMP.

The PC Environmental Manager is responsible for maintaining environmental records as they pertain to the project and the Second Iteration EMP. The PC Environmental Manager will maintain records using the EMS, and will train staff and delegate responsibility, as needed. The EMS will be updated throughout the project and may be audited by the NRA or EAB at any time. The NRA and EAB will coordinate and provide a set audit schedule.

10 References

Design Manual for Roads and Bridges LA 120 – Environmental management plans (March 2020). Revision 1. Retrieved February 12, 2025, from LA 120 - Environmental management plans.

National Conservation Council. (2016). *Directive for Environmental Assessments Section 43, National Conservation Law*. Cayman Islands National Conservation Council. https://doe.ky/wp-content/uploads/2017/01/Gazette-EIA-Directive-29-June-16.pdf