ESO: EXECUTIVE SUMMARY

ES1: BACKGROUND

The last decade has seen a surge in the expansion and rehabilitation of our road network. This has caused the emergence of greater transportation by road, the mass movement of goods and supplies across the country. The vehicles now being used to transport these goods, have been improved from the standard 18-wheeler trucks used in design of our roadways and the bridges by extension. As a result, some of our bridges have been overloaded beyond their designated allowable capacity, creating continuous stresses on the bridge structures.

With this, the peak traffic flows are not intense in these areas; however the frequency with which vehicles are impacting on this network is increased. There are 738 bridges on the NWA road network with an average age of 50 years. Most of the remainder of which were built prior to emancipation are still functional; but this condition is not desirable. However due to the scarcity of funds, they have been neglected, having less than design capacity.

ES2: PROJECT OVERVIEW

This project comprises the construction and replacement of approximately 43 Bridges Island wide. The bridges are of four (4) different forms namely, Compact 200 Bridges, Delta Bridges, Short Span Beam Bridges and Plate Girder Bridges, with spans that range from 12.191m to 39.622m, 48.766m, and 9.144m to 10.667m and 9.144m to 182.88m respectively.

The bridges superstructure will be principally of a steel deck supplied with a Urethane and Bauxite surfacing however, there will be some plate girders with a reinforced concrete composite deck. All bridges structure will be supported on reinforced concrete abutment and center piers where necessary, with traditional mat or pile foundations.

ES3: PROJECT ENVIRONMENT

Most of the bridges are located in the rural areas where agriculture is the main economic activity. At most of the sites the ecology has been modified by farming or commercial practices.

NAME OF BRIDGE	*PARISH*	*EXISTING STRUCTURE*	*PROPOSED STRUCTURE*
Barham	Westmoreland	*Steel Girder*	*2- Lane compact 200*
Bushy Park #3	St. Catherine	*Multi-span single lane pre-stressed concrete*	*2 Lane Delta*

NAME OF BRIDGE	***PARISH***	***EXISTING STRUCTURE***	***PROPOSED STRUCTURE***
Dry River Bridge	Portland	*Steel Truss*	*Single Lane compact 200*
Dundee Bridge	Hanover	*Timber Bailey Bridge*	*Single Lane Compact 200*
Eden River	St. Mary	*Double Span*	*2- Lane Compact 200*
Enfield	St. Mary	*Steel Truss*	*Single Lane Compact 200*
Fontabelle #2	St. Mary	*Single Span Concrete Girder*	*2- Lane Plate Girder*
Grosmond - Concrete	St. Elizabeth	*Steel Beam (Concrete)*	*Short Span Beam*
Guanaboa Vale	St. Catherine	*Through Girder*	*2- Lane Plate Girder*
Harbour Head	St. Thomas	*Single Lane Through Girder*	*Single Lane Compact 200*
Hog Hole	St. Catherine	*Fording*	*Single lane Compact 200*
Jacob	Portland	*Two Span Steel truss*	*Single Lane Compact 200*
John's Hall #2	St. James	*Steel Bean (Concrete)*	*Short Span Beam*
John's Hall (New#1)	St. James	*No Structure*	*Short Span Beam*
John's Hall (New#2)	St. James	*No Structure*	*Short Span Beam*
Kings Valley Bridge	Westmoreland	*Timber Bailey Bridge*	*2- Lane Plate Girder*
Latium Bridge	St. James	*Steel Beam Concrete*	*Single Lane Compact 200*
Leith Hall	St. Thomas	*Single Span Concrete*	*2- lane Quick*
Lime Bush	Portland	*Single Span Steel Truss*	*Single lane Compact 200*
Maggart Bridge	St. Mary	*Single Land Solid Slab*	*2- Lane Plate Girder*
May River	St. Mary	*Steel Beam in concrete*	*Short Span Beam*
Merrivale Gully	St. Andrew		*3- Lane Plate*
Nightingale (truss)	St. Catherine	*Single Span Steel Truss*	*2- Lane Compact 200*
Pedro River Bridge	Clarendon	*Through Girder*	*2- Lane Compact 200*
Red Hill's Over Pass	St. Andrew	*Single Span Steel Girder*	*3- Lane Plate Girder*
Rosa Bridge	Clarendon	*Single Span Steel Girder*	*Short Span Bean*
Salt Gully Bridge	St. Catherine	*No Structure*	*Single Lane Compact 200*
Sandy Gully Cassia Park	St. Andrew	*Fording*	*2- Lane Plate Girder*
Sandy Gully (Queensborough)	St. Andrew	*Fording*	*2- Lane Plate Girder*
Shooting River	St. Thomas	*Single Lane Bailey*	*Single Lane Compact 200*
Silent Hill Bridge	Clarendon	*No Structure*	*Single Lane Compact 200*
Spring Field	Clarendon	*Single Span Through Girder*	*2 – Lane compact 200*
Spring Vale	St. Catherine	*Timber Deck Bailey*	*2-Lane Compact 200*
Stubbs Bridge	St. Catherine	*Single Span steel Truss*	*2-Lane Plate Girder*
Temple Hall (Boswell Heights)	St. Andrew	*Fording*	*Single Lane Compact*

NAME OF BRIDGE	***PARISH***	***EXISTING STRUCTURE***	***PROPOSED STRUCTURE***
Vanity Fair	St. Catherine	*2-Lane Steel Truss*	*2-Lane Plate Girder*
Wakefield	St. Catherine	*Timber Bailey Bridge*	*2-Lane Compact 200*
Wain Spring Bridge	Portland	*Single Lane Steel Girder*	*Short Span Beam*
Ward River #1	St. Thomas	*Single Span Steel Girder*	*Short Span Beam*
Yallahs River Bridge	St. Thomas	*Fording*	*2-Lane Plate Girder*
Unknown #3	St. Mary	*Single Concrete Slab*	*Short Span Beam*
Unknown #4	St. Mary	*Single Span Beam*	*Short Span Beam*

*ES4: **LEGISLATIVE AND REGULATORY FRAMEWORK**:*

The Natural Resources Conservation Act was passed in the Jamaican Parliament in 1991and provided the basis for the establishment of the Natural Resources Conservation Authority (NRCA) with primary responsibility for ensuring sustainable development in Jamaica through the protection and management of Jamaica's natural resources and control of pollution. Sections 9 and 10 of the NRCA Act stipulate that an Environmental Impact Assessment (EIA) is required for new projects and existing projects undergoing expansion.

The Environmental Permit and License System (P&L), introduced in 1997, is a mechanism to ensure that all developments in Jamaica meet required standards in order to minimize negative environmental impacts. The P&L System is administered by NEPA, through the Applications Section (formerly the Permit and License Secretariat). Permits are required by persons undertaking new development which fall within a prescribed category. Under the NRCA Act of 1991, the NRCA is authorized to issue, suspend and revoke permits and licences if facilities are not in compliance with the environmental standards and conditions of approval stipulated. An applicant for a Permit or License must complete an application form as well as a Project Information Form (PIF) for submission to the NRCA/NEPA.

ES5: PROJECT IMPACTS AND MITIGATION

Pre-Construction Period:

No widening or realignment of the carriage way outside of the existing right-of-way (ROW) will be required on most of the sites; Replacement bridges will be constructed in most instances on the existing alignment and no realignment of approaches will be necessary; Remedial works related to earthworks will adopt designs which do not involve new construction outside the existing ROW.

Construction Period:

The impacts associated with most of the areas where work is to take place are not in anyway adverse, because the activities will be confined to a narrow construction zone. However, control measures in the form of suitable environmental protection clauses will be included in the contracts. The programme will not involve construction activities in areas which are designated environmentally sensitive. No major earthworks will be carried out in any of these areas and the potential for erosion will be significantly reduced.

Operational Period:

The key impact anticipated during the operational will generally be beneficial, these will include; improvement to local communities, access to markets, reduction in goods and passenger transport costs and improvement in drainage conditions. While there may be increases in traffic levels, the increase will unlikely to be high enough to have any negative impact on the communities.

Environmental Monitoring and Management:

Environmental management requirements during construction will be documented in the Environmental Management Plan (EMP). The Environmental Management Plan (EMP) is a method of ensuring that the measures identified and commitments made in the environmental assessment process are delivered in the construction and operational phases of the project. The EMIP is a document that will be produced by the contractor, in accordance with EMP guidelines. It will detail how the contractor will implement and manage environmental aspects of the project. The contractor will outline mitigation measures that are required to be put in place for the duration of the Contract.

ES5: CONCLUSION:

The Mabey Johnson Priority Bridges Programme is designed to rehabilitate at least 44 badly deteriorating bridges on the NWA national network. The work will involve primarily existing bridges structures or where fording exists, the work will take place in the same locations. Having assessed the site conditions, there is no location where primary vegetation exists and the proposed works will not impact negatively on protected resources. Although some potential negative impacts have been identified for the project, the majority is short-term and relates mainly to site preparation and construction. Most of the negative impacts that have been identified can be successfully mitigated, given the guidelines provided in the appendices.

There are several positive impacts associated with the project. These include the improvement of access to remote, communities; improved efficiency in the movement of goods and services; support of new development and employment opportunities; improvement in the safety of the motoring public especially where the conditions on a number of the bridges have been deterioration over the past years.

Implementation, monitoring and enforcement of the mitigation measures that are recommended in the report and improved communication to the wider community, will ensure successful execution of this bridge program with minimum negative impact on the environment.