



10th Anniversary
2007 - 2011
DEVELOPING SAFE, RELIABLE AND QUALITY ROADS



ANNUAL REPORT

2011-2012

Our Core Business

To plan, build and maintain a reliable, safe and efficient main road network with flood control systems which: protects life and property; supports the movement of people, goods and services; reduces the cost of transport; promotes economic growth and quality of life, and protects the environment.

OUR CORE BUSINESS

We have defined four (4) core business lines:

Road Asset Maintenance and Development: We build, manage and maintain roadways including bridges and other structures in order to support Jamaica's development needs to efficiently move people, goods and services.

Road Asset Optimization and Congestion Improvement: We optimize the existing road network through strategies (including traffic lights coordination, intersection improvements and elimination of high risk spots) to improve traffic movement and reduce congestion.

Road Safety Management: We implement an infrastructure safety program to address issues of geometric design, roadway lighting, signage and road marking.

Flood/Sea Damage Control: We have responsibility for implementing and maintaining river training and sea defence structures. Additionally, we provide assistance in disaster preparedness and response.

Our values inform all aspects of our corporate consciousness. They represent our culture, guide our behaviours, and influence our deliberations, actions, and relationships with our clients, stakeholders, and partners. The following five (5) core values have been agreed to guide our deliberations and actions, and be exemplified in our interactions with others.

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Directors/ Senior Management Body



PATRICK WONG
Chief Executive Officer
(CEO resigned effective November 21, 2011)



EARL PATTERSON
*Chief Executive Officer (Acting)/
Senior Director - Project Implementation



DR. JENNIFER HENRY
Director, Human Resource
Management & Administration



PAULINE DUNSTAN
Director, Finance
and Accounts



GEORGE KNIGHT
Director, Regional Implementation &
Special Projects



SHARON MORGAN-GRINDLY
Director,
Corporate Services



JOHN WRIGHT
Director, Major Projects



MAXINE CREARY
Chief Internal Auditor(Acting)



ORLENE ROWE
Director, Quality Assurance



PATRICK ROSE
Director, Planning and
Research



ROGER SMITH
Director, Technical Services



STEPHEN SHAW
Manager, Communication and Customer
Services

1 Mr. Earl Patterson also operated in the capacity as the CEO from November 2011 to the end of the Fiscal Year

2 Not photographed are Ms. Camaika Facey, Manager Legal Services and Mr. Dwight Nelson, Director of JDIP

Key Achievements



**Washington Boulevard, St. Andrew
Road Official Road Opening**



**Dry River Bridge, St. Andrew
Official Road Opening**



Perspectives



Dr. The Hon. Omar Davies
Minister of Transport, Works
and Housing

As someone who has been involved in government for a long time, I am intensely aware of the contribution of infrastructural development to our country's economic and social well-being. It is against that background that I wish to hail the role that the National Works Agency has played and continues to play in this regard.

Since assuming office as Minister of Transport, Works and Housing, I have been exposed to various facets of this Ministry's portfolio responsibilities. It is no secret that the Works portfolio which runs the gamut of roads, drains, gullies, sea defence, building construction and so much more presents opportunities for challenges and praise alike. Thankfully, the NWA continues to maintain high standards which help to address the many infrastructural demands which the country faces.

I commend the professionals at the Agency who continue to provide yeoman service, sometimes in the face of trying circumstances. As the organisation fulfils its mandate of creating and maintaining sustainable infrastructural works, I wish to place my appreciation on record. I commit to lend the support necessary for improved performance and progress.

Perspectives



Hon. Richard Azan
State Minister in the Ministry of
Transport, Works and Housing

I salute the National Works Agency for another year of hard work and congratulate the Agency for the seminal role it has played in the development and maintenance of the islands main road network.

The team at NWA has maintained a clear focus and sought innovative ways to address problems associated with developing and maintaining a modern road infrastructure system. The determination and effort to put in place an Intelligent Transportation System demonstrates that the Agency understands the need for new capabilities that will contribute to the improvement and strengthening of our economic competitiveness.

Economic growth is dependent on the efficient movement of goods and services. I applaud your efforts and commend your commitment. I extend congratulations on your many accomplishments and pledge my support and wish the organization continued success while we work together for a better Jamaica.

Perspectives



Earl Patterson
Acting Chief Executive Officer

In continuing to fulfil our mandate, the Agency executed a number of projects targeting core aspects of our business. Safety, mobility, efficiency and availability were key aspects of what was delivered during the period under review.

Regarding the safety of our network, the Agency completed work in the Cross Roads area of St. Andrew. We also were able to repair or construct some 125 retaining walls valued at J\$240 million. These activities were augmented by work within 75 major gullies. The Agency also repaired 120 drainage structures island-wide. Some 68 pedestrian crossings were installed during the period. This was an increase of 23% over that done in the 2010/2011 fiscal year.

The efficiency of the main road network was vastly improved during this period. Restoration of eight bridge structures contributed to this improvement as our customers were able to move about the country in an easier and more reliable way. Expenditure on these structures amounted to some J\$1.5 – Billion. This included the Dry River Bridge in Harbour View, St. Andrew that was severely damaged during the passage of Tropical Storm Gustav in 2008. Additionally, 181 of the 366 sub projects under the Jamaica Development Infrastructure Programme (JDIP) were substantially completed. Approximately US\$140-million was expended on projects during the fiscal year.

NWA also completed work on the J\$1.7-Billion Washington Boulevard Improvement Project. The useful life of our main road network is heavily related to the quality of maintenance undertaken. To this end, the Agency spent some J\$475 million on maintenance. Patching activities which forms a key aspect of our maintenance effort was carried out on some 210,000m² of road network.

Our engagement with the public continued with well over 120 meetings being held or attended by officers as they relate to works being undertaken in their communities. The Agency was able to garner much support through this approach from community representatives, hence projects were in large measure successfully implemented.

We look forward to successfully completing the first phase of the Jamaica Emergency Employment Programme (JEEP), through which some 53 projects got underway. Several projects under JDIP should also be completed in the new financial year.

WHO WE ARE , WHAT WE DO



Our Role

The National Works Agency (NWA) is an executive agency of the Ministry of Transport, Works and Housing (MTW). Established in April 2001, under the Public Sector Modernization Programme, we assumed the functions of the defunct Public Works Department (PWD), as the principal implementer of capital projects for the MTW. We operate as an independent department under the auspices of the Ministry, which establishes and directs national transportation policy directed towards the creation of a safe, efficient, and reliable transportation system.

Principally, we are charged with the responsibility to operate, maintain and improve the country's main road network (MRN) and flood control systems. In addition, we also set and maintain road safety and structural standards used by many local authorities for the other road classes that they manage. We also discharge statutory obligations under various statutes including; the Main Roads Act, the Road Traffic Act, and the Flood Water Control Act.

As an executive agency, we are focused primarily on the delivery of services with a result-oriented approach to governance. Accordingly, the Agency is managed by a Chief Executive Officer, assisted by an Advisory Board and an Executive Management Team. Our role is articulated in our Framework Document which is updated every 3-years. A map of our network is shown on page 15.

MISSION, VISION, VALUES AND CORE BUSINESS

Our Strategic Plan 2011-15 sets a bold vision for us to 'Create a world class, safe, quality and reliable main road network meeting the needs of our clients in the towns, communities and districts where they vacation, work and live.' This aspiration is essential to drive business improvement and strengthen our contribution to Government goals.

Mission And Values

OUR MISSION

To plan, build and maintain a reliable, safe and efficient main road network, with flood control systems which protects life and property; supports the movement of people, goods and services; reduces the cost of transport; promotes economic growth and quality of life and protects the environment.

OUR VALUES

Our values inform all aspects of our corporate consciousness. They represent our culture, guide our behaviours, and influence our deliberations, actions, and relationships with our clients, stakeholders, and partners. The following five (5) core values have been agreed to guide our deliberations and actions, and be exemplified in our interactions with others:

People: We believe that our principal strength is our people and that our success will depend on our ability to provide them with the tools and environment to allow them to excel.

Integrity: We demonstrate trust, and respect for each other, our partners and stakeholders, through open honest communications.

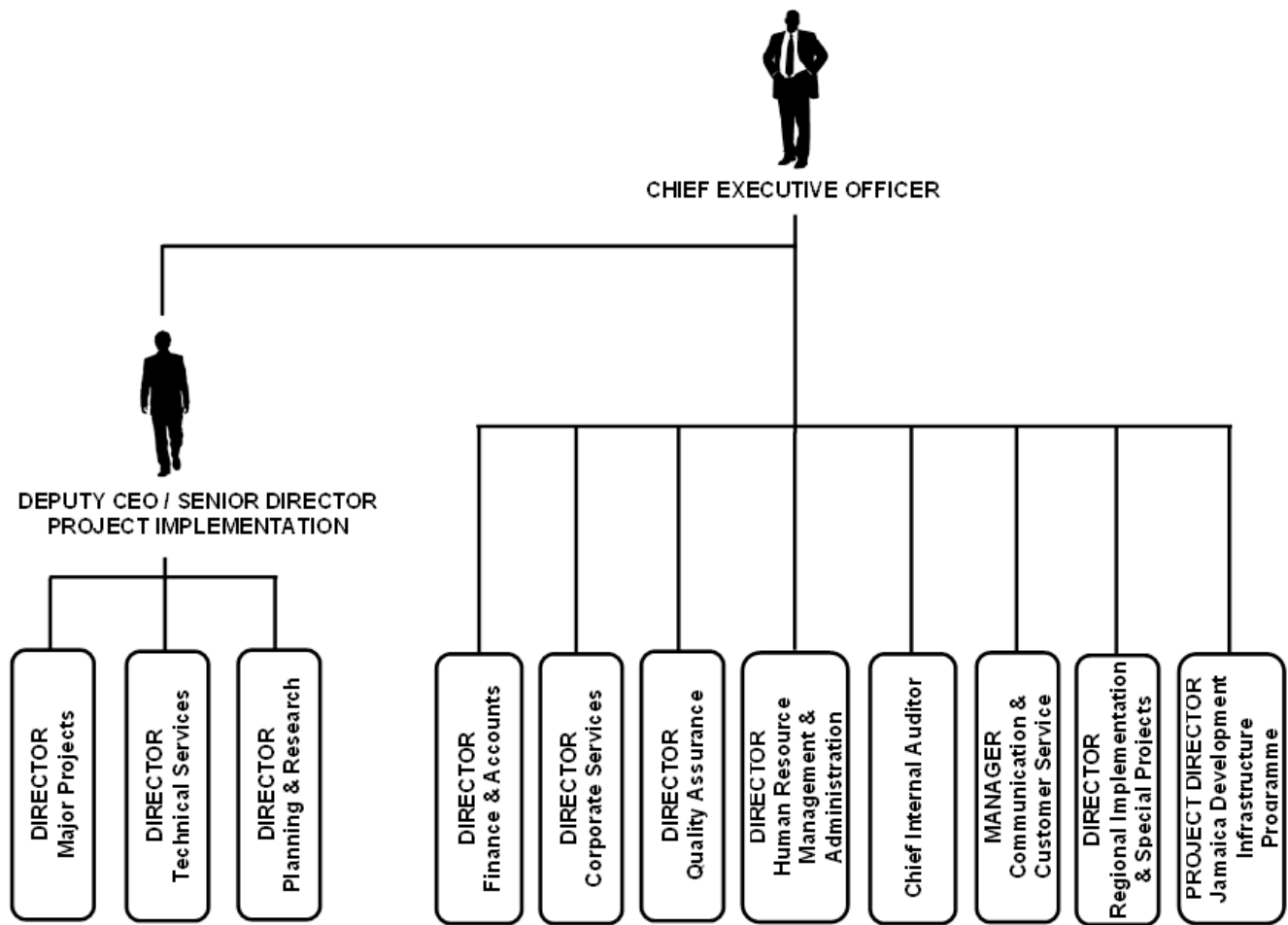
Partnership: We respect the values, principles and opinions of the public, as they help define our goals and evaluate our performance.

Excellence: We continually strive for excellence, quality service, value for money, fiscal prudence, flexibility, creativity and innovation.

Impartiality: We commit to treating all persons with whom we come in contact, fairly, and without regards to sex, race, religion, political affiliation or the community to which they belong.

OUR ORGANIZATIONAL STRUCTURE

To fulfill our mandate, we employ over 400 staff between our Corporate Office, satellite offices, and various projects. Headquartered in Kingston, the Agency operates four (4) Regional and fourteen (14) Parish Offices, operated across 4 geographic regions: (1) Kingston Metropolitan (includes: Kingston, St. Andrew and St. Catherine); (2) North-Eastern (includes: St. Mary, Portland, St. Ann, and St. Thomas); Western (includes: Westmoreland, Hanover, St. James, and Trelawny); and (4) Central (includes: Manchester, Clarendon, and St. Elizabeth). The major Directorates and Departments that constitute the NWA are illustrated in the organization chart below.



KEY PERSONNEL CHANGES

During the year, there were three (3) significant changes to the organizational structure of the Agency. In June 2011, Mr. Patrick Wong resigned as Chief Executive Officer, at which time Mr. Earl Patterson was appointed Acting CEO. We also bid farewell to Mr. Ainsworth Savage who resigned as Chief Internal Auditor, and Mr. Wainsworth Anderson who retired as Director, Asset Management in March 2011. Following the December 2011 electoral vote, we also saw ministerial changes with the appointment of Dr. the Hon. Omar Davies as the new Minister of Transport, Works and Housing, State Minister in the Ministry of Transport, Works and Housing, Hon. Richard Azan and Minister without Portfolio in the Ministry of Transport, Works and Housing, Hon. Dr. Morais Guy.

2011 Corporate And Performance Highlights



10th Anniversary Commemoration Church Service held at the St. Andrew Seventh Day Adventist Church, St. Andrew



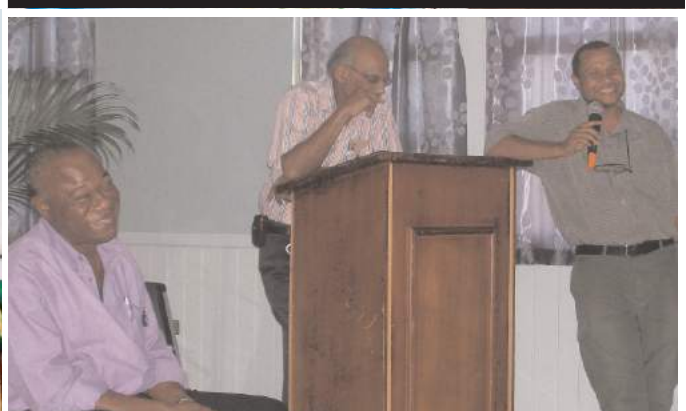
1st Place Winner Marjorie Bailey, Administrative Assistant in the Directorate of Regional Implementation and Special Projects at the NWA, won for herself - \$15,000.00 after answering correctly all the questions in the Quiz. Here she collects her cheque from CEO Patrick Wong.



Mrs. Maxine Creary - Senior Internal Auditor (left) and Mrs. Orlene Rowe - Director, Quality Assurance, share in the cutting of the farewell cake.



Acting CEO - Earl Patterson congratulates and presents a Plaque and Certificate to Field Technician, Tyrone Francis – Employee of the Year 2011.



From left (seated): Wain Anderson; (standing) Earl Patterson - Senior Director, Project Implementation and Special Projects; Patrick Rose - Director Planning and Research

2011 Corporate And Performance Highlights



2011 Fire Safety Drill and Inspection coordinated with the Jamaica Fire Brigade



Dr. Jennifer Henry, Director, Human Resource Management and Administration, making a presentation to Mr. Earl Wright, retiring Assistant Parish Manager for his years of service



Members of staff donating blood at our Annual Blood Drive established in partnership with the National Blood Bank



Eye-care examination conducted at our Annual Information and Health Fair in July 2011

2011 Corporate And Performance Highlights



1



2



3

1. Official opening of Friendship Parish Council Road in Boston, eastern Portland

2. Contract being signed for rehabilitation of the Belmont to Scott's Cove main road in Westmoreland.

3. Tour of the newly completed Bellview road in St. Elizabeth.



Rehabilitation was started on 12 kilometers of the Salt River Road NWA, Central Region (Salt River to Dawkins Pen) on December 13, 2010 by the subcontractor Build Rite Construction. Transport and works Minister, Mike Henry test the thickness of Asphalt being laid along the roadway.



Member of Parliament for Western St. Mary, Hon. Robert Montague (2nd left), along with State Minister in the Ministry of Transport and Works, Hon. Othneil Lawrence (3rd right) cutting the ribbon to mark the official reopening of Marley Road.



Minister of Works and Housing , Dr. Omar Azan addressing the Management Team at NWA after assuming duties at the Ministry. Joining him were Ministers Richard Azan and Dr. Morais Guy.

OUR PERFORMANCE



Key Performance Indicators

NATIONAL WORKS AGENCY EVALUATION OF KEY PERFORMANCE INDICATORS 2011/2012

No.	Strategic Objective	Indicators	Targets	Weight/ Points	Points	Actual Performance
1	Safety	Traffic Management and control	120km lines (Road Marking includes Pedestrian Crossings) installed by the end of 2011/12	2	2	Target Met
			1000 Nos. Traffic Signs installed islandwide by the end of 2011/12	2	0	Target not met
			500 Nos. Raised Pavement Markers installed islandwide by the end of 2011/12	1	1	Target met
			6 nos. Traffic Intersections signalized by the end of 2011/12(may include :IDB/GOJ TIRP 2026; CDB/GOJ Washington Blvd. Project	2	2	Target met
			10 Nos. Traffic Intersections Upgraded/Rehabilitated by the end of 2011/12(may include CDB/GOJ Washington Blvd. project; JDIP)	2	2	Target met
			4 Nos. Speed Zone Rationalization Reports completed by the end of 2011/12	1	1	Target met
		Flood Control , Mitigation and Damage Rehabilitation	2 Nos. waterway improved via gabion works; bunding and desilting works by the end of 2011/12	1	1	Target met
			10,000 m3 Retaining Wall constructed by the end of 2011/12	3	3	Target met
			CHEC Palisadoes Shoreline & Road Project-Phase 3 Revetment Works 40% completed by the end of 2011/12	2	2	Target met
Safety Targets (9)				16	14	
2	Reliability & Availability	Disaster response and emergency repairs to roads	Clear 75% of blocked roads islandwide to single lane within 7 days after the occurrence of an emergency such as hurricane, floods, public inconvenience, etc.	2	2	Target met
		Routine Maintenance	62000m3 of patching (Hot Mix & Spray) completed by the end of 2011/12 (may include JDIP and RMF -funded Projects)	3	3	Target met
			75 Nos. Gullies and drains cleaned islandwide by the end of 2011/12.	2	2	Target met
			250 Km Bushing activities conducted by the end of 2011/12 (may include IDB 2276)	2	2	Target met
		Periodic Maintenance	60,000m2 Micro-surfacing conducted by the end of 2011/12	3	3	Target met
		Road Rehabilitation	150,000 m2 Road Rehabilitation (Asphaltic Concrete, Double Surface Dressing) conducted by end of 2011/12	4	4	Target met

Key Performance Indicators

No.	Strategic Objective	Indicators	Targets	Weight/ Points	Points	Actual Performance
		Traffic Management/ Planning Urban Road Improvement	5 Nos. Network Analysis Studies completed by the end of 2011/12	2	2	Target met
			1 no. Traffic Improvement Project (Cross Roads) substantially completed by the end of 2011/12	2	2	Target met
		Bridge Development and Construction	75 Nos. Bridge Inspections conducted by the end of 2011/12	2	0	Target met
			8 Nos. Bridges /Structures completed by the end of 2011/12 via: > 3 Nos. CDB/GOJ Washington Blvd Project;> 1 No. IDB/GOJ 2026 TIRP -Dry River, Kingston;> 4 Nos. JDIP- (may include Johns Hall, St.James & Eleven Miles -St.Thomas)	15	15	Target met
			3 Nos. Bridges /Structures Rehabilitated by the end of 2011/12;(may include Shooting River, Montego River & May Pen	1	1	Target met
			1 No. Bridge/Structures Rehabilitated by end of 2011/12 (may include Tiber River - St.Mary)	1	0	Target not met
	Total Targets for Reliability & Availability (12)			39	36	
3	Efficiency	Regulatory Reports, Corporate Planning & Performance Monitoring	Final 2011/12 Budget and Draft 2012/13 budgets submitted.	1	1	Target met
			Monthly Unaudited Financial Statements submitted	1	1	Target met
			Monthly Recurrent Financial Expenditure submitted	1	1	Target met
			Monthly Capital A & B Statement of Expenditure submitted.	1	1	Target met
			Final 2011 -2014 Corporate Plan; >Final 2011/12 Operational Plan; >Final 2011/12 KPIs; >Draft 2012-2015 Corporate Plan; >Draft 2012/13 Operational Plan;Draft 2012/13 KPIs produced and submitted.	1	1	Target met
			Final 2006/07,2007/8,2008/9,2009/10, 2010/11 Annual reports published (contingent on audited financial statements from the Auditor General's Office)	1	0	Financial Statements were not audited see below adjustment to reflect same .
			4th Quarterly 2010/11; 1st,2nd and 3rd Quarterly 2011/12 Quarterly Performance Review reports prepared and presentations conducted.	1	1	Target met
			Quarterly Internal Audit Reports submitted	1	1	Target met
			Monthly & Quarterly Contract Award Reports submitted	1	0	No evidence of monthly reports submitted.
			Monthly Project Reports (JDIP,IDB/GOJ 2026 TIRP, IDB/GOJ 2276 RIP, CDB/GOJ 5th Road. etc)	2	2	Target met

Key Performance Indicators

No.	Strategic Objective	Indicators	Targets	Weight/ Points	Points	Actual Performance
		Financial Management	Targeted Revenue (J\$600 million) to be earned from Agency fees achieved by the end of 2011/12	2	2	Target met
		Information Resource Management	Active/Inactive Records Classification Project completed for 2 Nos. departments /Units by the end of 2011/12	1	1	Target met
		Internal Control Systems	15 Nos. Risk Assessment /Internal Audits conducted by the end of 2011/12	2	0	Target not met
		Quality Management	1 no. Post Project Evaluation conducted for contract over J\$15m by the end of 2011/12	1	0	Target not met
			16 nos. Project Quality & Follow -Up Action Audits conducted by the end of 2011/12	2	2	Target Met
			90% of Take-Over Certificates reviewed and processed within 7 wrk. Days after request receipt.	1	1	Target Met
		Geographic Information Systems	80% of Maps & Digital Information produced for internal customers within 10wrk. Days and external customers within 5 wrk.days after request receipt.	1	1	Target Met
		Technical Studies and design	IDB/GOJ 2026 TIRP Master Drainage Plan Deliverables completed by the end of 2011/12 (i) Document History of Flooding. (ii) Examine and report on Existing and Future Land Use.(iii) Prepare Comprehensive Drainage and Flood Control Plan	1	1	Target Met
		Institutional Strengthening	Corporate Retreat 2011/12 convened by the end of 1st Quarter 2011/12	1	1	Target Met
			2 Nos. Information Technology Business Processes improved by the end of 2011/12	1	0	Target not met
	Total targets for Efficiency (21)			24	18	
4	Development & Growth	Road Infrastructural Development	CDB/GOJ 5th Road Washington Boulevard Improvement Project:Civil Works substantially completed by the end of 2011/12	5	5	Target met
			(KFAD/GOJ) Kuwait Phase 11 > Toms River to Aqualta Vale , St.Mary (17km) Land Surveying substantially completed by the end of 2011/12	1	1	Target Met
			(OFID/GOJ)OPEC Phase 11 > May pen to Sour Sop Turn (10.02km),>SourSop Turn to Danks (11.7km) > Danks to Tout Hall (11.2km). Land Surveying substantially completed by the end of 2011/12	1	1	Target Met

Key Performance Indicators

No.	Strategic Objective	Indicators	Targets	Weight/ Points	Points	Actual Performance
		Development Control and Physical Planning	70 % of Applications (Advertisements, Outline, Building, Restrictive Covenants and Subdivisions) processed within 21 calendar days of receipt.	2	0	Target not met
			1 No. Project Profile prepared and submitted by the end of 2011/12	1	1	Target Met
Total targets for Development and Growth (5)				10	8	
5	Environment	Environmental Standards Maintained	Quarterly Environmental Reports prepared for Major Projects:(may include CDB/GOJ Wash.BLVD.; IDB/GOJ 2026 TIRP; Palisadoes; JDIP Fern Gully; JDIP Christiana; JDIP Rio Grande, Cassia park & Queensborough)	1	0	Target not Met
Total target for Environment (1)				1	0	
6	Communication and Customer Services	Public awareness and customer satisfaction enhanced	Audio: 96 Nos. "on Our Roads" Radio Broadcasts conducted by the end of 2011/12	1	0	Target not met.
			> Print: News releases, etc. conducted as required	1	1	Target Met
			> Visual: Interviews, etc. conducted as required	1	1	Target Met
			NWA's 10th Anniversary Commemoration conducted by the end of 2011/12	1	1	Target Met
			2011 Customer Satisfaction Survey completed by the end of 2011/12	1	1	Target Met
		Technical, Engineering and Mechanical Services	Engineering and Technical Support provided to various Public and Private Sector Organizations for 7 Nos. projects by the end of 2011/12.	1	1	Target Met
Total targets for Communication & Customer Services (6)				6	5	
7	Cadre of High Quality and Committed People	Personnel and Industrial Relations	Performance Evaluations processed as required.	1	0	Target Not Met
		Training and Development	Initiated Training Plan (2011/12) implemented by the end of 2011/12	1	0	Target Not Met
		Staff Morale Enhanced	4 Nos. Rewards and Recognition Ceremonies held for each quarter and 1 no. End of year with tokens being received on a timely basis.	1	1	Target Met
Total targets for Cadre of High Quality & Committed People (3)				3	1	

SUMMARY RESULTS

	No. of Targets	Actual Targets Achieved	Weight % Attainable
TOTAL	57	46	100
ADJUSTMENT	-1		-1
ADJUSTED TOTAL	56	46	99

PERCENTAGE ACHIEVEMENT OF KPI: 82/99 = 82.8%

Creating a Safe Road Environment

Over

US\$20M
SPENT ON ROAD SAFETY
IMPROVEMENTS

600+
NEW SIGNS INSTALLED
ISLANDWIDE

ZERO
WORKER FATALITIES

NINE
NEW TRAFFIC INTERSECTIONS
SIGNALIZED

FIFTEEN
FLOOD CONTROL PRODUCTS
IMPLEMENTED

Safety continues to be our number one concern and resides at the heart of our operations. However, recent traffic crash and fatality data reveals a significant gap in our efforts to create a safer road network for all users. Safer roads require not only properly designed and built surfaces and structures, but also efficient law enforcement, responsible driving behaviour, safe vehicles, and proper utilization of our roadways. This makes our job exceedingly difficult as a number of these factors exist outside our control. In fiscal year 2011-12, we sought to maximize safety benefits through our Safe Roads Programme and planned engineering interventions. Primarily, our Safe Roads Programme seeks to provide critical infrastructure needed to create an environment where all road users can go about their business safely. This includes works such as, the installation of lighting; installation of traffic signals at intersections; shoulder widening at intersections; installation of guardrails and barriers; widening of existing lanes; intersection upgrade to accommodate turning movements; the construction of sidewalks to facilitate pedestrian traffic; and bridge and other geometric safety improvements.

Whilst our major road schemes are primarily focused on improving network connectivity and reducing congestion, we continue to seek every opportunity to incorporate meaningful safety improvements, as funding permits, to reduce risks to all road users, particularly pedestrians, cyclists and other vulnerable groups such as children and the elderly. Given the complexity involved in making our roads safer we are mindful of the need to work closely with other road safety groups to address priority road safety issues, and tackle poor road user behaviour. During 2011-12, we worked in collaboration with the Transport Ministry's Road Safety

Unit, elected representatives, and other safety advocates to identify a range of short to medium term interventions that demonstrate sound economic and safety benefits. While we are limited in our mandate to attack the behaviours that contribute to incidents and collisions in a fulsome manner, we nonetheless continue to explore ways in which our interventions can better inform safe driving behaviours.

Saving Lives through Greater Awareness

One way we endeavour to create safer roads is to improve the information awareness of all road users. Primarily, we rely on signage and road delineations to shape road users expectation of upcoming road hazards. While protective devices are used to create more forgiving road systems that take into account reasonable cases of human error.

During fiscal year 2011-12, our safety efforts received funding support under various programmes, primarily the GOJ Capital "A" Budget Allocation and the IDB/GOJ (loan #2276) Road Improvement

Programme. The scope of works routinely carried-out included: (1) road markings; (2) improvement of pedestrian crossings; (3) the deployment of mandatory, warning, informational, and directional signs; and (4) the installation of protective devices. Between April 2011 and March 2012, we installed a total of 666 new signs, 580 raised pavement markers, and 68 pedestrian crossings. A summary of our road safety performance for fiscal year 2011-12 is provided in the table on page 29. The raised pavement markers continue to be extremely useful as their retro reflectivity provides increased visibility at night, especially during heavy rainfall, where pavement markings alone prove insufficient to provide adequate roadside delineation. As well, our efforts to improve markings in our urban centers continue to be well received by the Public. Throughout the year, some 200 linear kilometres of markings were installed. This was made possible through our acquisition of a state of the art self-propelled road marking machine.

The new machine is expected to significantly enhance our productivity. Marking crews will now be able to install longer length of lines within a shorter period at greater levels of standardized quality. The machine also offers several new line patterns such as rumble strips that alert inattentive drivers of potential danger, by causing a tactile vibration and audible rumbling transmitted through the wheels into the vehicle interior. The new unit will utilize hot applied thermoplastic, which offers excellent visibility during both day and night, and displays superior durability and color retention.



Newly acquired self-propelled road marking machine

Case Study: RAISING ROAD SAFETY AWARENESS

WBIP Safety Campaign

With the completion of the Washington Boulevard (Fifth Road) Improvement Programme in October 2011, we launched a three (3) month road safety campaign, commencing in September 2011, with a view towards sensitizing parents, guardians, and students of several schools within close proximity of the corridor on how to safely traverse the roadway. The campaign provided road safety tips, and guidance on the proper use of new pedestrian facilities purposefully installed under the Washington Boulevard Improvement Project (WBIP). The issue of motorist and pedestrian safety was a huge consideration of the WBIP. Accordingly, eight (8) intersections were signalized to reduce conflicts in the traffic environment; and 69 double arm LED streetlights were installed to improve nighttime visibility. To aid road delineation thermoplastic road markings were installed for all sections, while concrete centerline median barriers were erected to prevent crossover lane collisions. Significantly, pedestrian facilities including pedestrian accentuated signals, crossings; and pedestrian “Stop” and “Walk” signals were installed at all intersections, in close proximity to schools. Sidewalks were also improved on both sides of the main six-lane corridor, as well as along the roadway of the Underpass.



NWA Communications Officer, Havenol Douglas (left), making a presentation on the safe use of the enhanced Washington Boulevard/Dunrobin Avenue corridor. Parents, Teachers and Students of the Dunrobin Primary School (right) in attendance during one of our Safety Intervention Sessions.

Table 1: Summary of our Safe Roads Performance for Financial Year 2011-12

INTERVENTIONS	ACTUAL 2010-2011	PLANNED 2011-12	ACTUAL 2011-12	PLANNED 2012-13	PLANNED 2013-14
Signage (No.)	600	1000	666	1000	500
Raised Pavement Markers (No.)	800	500	580	500	500
Road Marking (Linear kilometres)	150	120	200	120	150
Pedestrian Crossings (No.)	55	45	68	45	50

Hot Spot Elimination

Investment in road infrastructure is expensive, and it is important that funding is applied where it will achieve the most good. To ensure that taxpayer dollars are invested wisely, we continue to employ an evidence-based approach to our road safety interventions. During fiscal year 2011-12, we conducted continuous research of accident prone areas across the island. This data is used to inform our strategies to enhance safety along the road network. Principally, our Hot-Spot Elimination Programme seeks to eliminate road locations with high incidence of road fatalities that exhibited increased likelihood to contribute to an accident occurring. We also completed our Hot Spot analysis of the Industrial Terrace / Spanish Town Road intersection and Denham Town High School locale, which was slated to be addressed under our 2012-13 Hot Spot Elimination Programme. At the end of the year, procurement activities were far advanced, to commence implementation of improvement works in fiscal year 2012-13.

Working in collaboration with the Tourism Enhancement Fund (TEF) and the Tourism Production Development Company (TPDCo), we have developed a scheme that will reduce speeding along the Norman Manley Boulevard in Negril, as well as enhance the pedestrian experience along the corridor. Under the Negril Traffic Calming Scheme, we plan to install six (6) push button traffic signal controlled pedestrian crossings. The scheme also includes the construction of approximately 3kilometres of sidewalks 3metres wide. Bids to supply the traffic signal equipment for the corridor were put to tender during the year and the works are to commence in the next fiscal year 2012-13.

Ensuring the Safety of our Work Crews

Worker safety continues to be an important consideration in the design and execution of our projects. Working near moving traffic is a high risk occupation for our staff, construction workers, and those who undertake maintenance on the network. Throughout fiscal year 2011-12, we continued to live up to our commitment to protect our workers. Thankfully, we were able to end the year with zero casualties. We remain committed to doing all we can to ensure that our people have a safe working environment. To help monitor and reduce accidents and injuries at the workforce, we continue to procure appropriate safety equipment, such as vests, helmets, etc. to ensure that our employees are protected when working in the field. Further, all eligible personnel have been issued credentials identifying them as employees of the organization. We have put in place General Insurance coverage to give our employees peace of mind that their dependents will be provided for in the event of catastrophic injury or death in the performance of their duties. In the next year, we plan to introduce our new road worker strategy and action plan (Zero Harm), as part of our vision for health and safety performance for road workers and office-based staff across the Agency. Finally, we are equally concerned about the safety of workers contracted to our projects. Contractors are contractually obligated to prepare and submit, for approval, traffic and safety plans that articulate how they intend to keep the public, and their workers safe throughout the duration of the project. During the year, we undertook routine monitoring to ensure satisfactory safety compliance at all our project sites.

Effective Flood Control

Flooding, from extreme rainfall events, represent perhaps the single greatest threat to the country's land transport infrastructure. Jamaica's vulnerability to flooding stems from a number of factors, including; (1) Heavy rainfall resulting from tropical weather disturbances; (2) Deforestation; (3) Improper agricultural practices; (4) Inadequate design of drainage channels and structures; (5) Inadequate maintenance of drainage facilities, blockage by debris brought by flood waters; (6) Construction of settlements in flood plains. In addition, the high proportion of land space covered by hard non-absorbent materials has been cited as a contributory factor in urban flooding. On average, the country has experienced a destructive flood event once every four (4) years, which causes considerable damage to our roads as well as supporting infrastructure such as bridges, retaining walls, and drainage structures.

Our aim in maintaining effective flood control is to reduce the severity and frequency of flood damage. Flood control refers to all methods used to reduce or prevent the detrimental effects of flood waters. Traditionally, we employ several strategies to enact proper flood control, including river training, sea defence, and retaining wall and drainage construction activities. In addition, we carried out routine clearing of critical drains and gullies islandwide prior to the start of the Atlantic Hurricane Season to maximize their effectiveness. Achievements under the Agency's flood control mitigation programme are discussed below and continued in the Routine Maintenance section of the report.

Capital 'A' Islandwide Flood Damage Mitigation Programme

During the year, we conducted flood damage mitigation activities funded by the GOJ (Capital A) budgetary allocation to the tune of J\$90 million.

Palisadoes Shoreline Protection and Road Rehabilitation Works Project

A major Flood Control, Mitigation and Damage Rehabilitation initiative we have undertaken in recent years is the Palisadoes Shoreline Protection Works Project. The 6.6 kilometres Palisadoes corridor, styled the "Airport road", was extensively inundated during the passing of Hurricane Ivan in 2004. Hurricane Dean (2007) and Tropical Storm Gustav in 2008 also severely damaged this critical corridor. The Palisadoes Peninsular is significant as it is the only roadway access to Port Royal, and the Norman Manley International Airport, Caribbean Maritime Institute and Yacht Club. It also provides critical protection for the Kingston Harbour from storm surges.

Under a Caribbean Development Bank (CDB) funded initiative in fiscal year 2008/09, the NWA implemented approximately 646 metres of revetment work to rehabilitate the corridor. With the objective of providing a more comprehensive solution, a Phase 3 of the Palisadoes project was conceptualized. This latest Phase was implemented via the China EX-IM Bank initiative. The China Harbour Engineering Company Limited (CHEC) was contracted in fiscal year 2011-12 to implement these works in the amount of US\$65,377,404.62. The revetment design is for a 100-year return period, and provides for the underground installation of utilities cables along the corridor.

At the end of the fiscal year 2011-12, the Palisadoes Shoreline Protection Works project was assessed to be 42% complete. The project remains on budget, and is anticipated to produce notable social benefits for road users, as the completed works will now provide a reliable roadway to the Norman Manley International Airport and Port Royal. As at 31st March 2012, the value of works certified totaled US\$32.4 million. The expected completion date was revised to December 2012.

RIVER TRAINING & SEA DEFENSE

River training and sea defence works are routine mitigation tactics we employ to achieve effective flood control. While various approaches exist to implementing river training solutions, the approach most often utilized in Jamaica involves the use of metal mesh bags of rocks that are placed against river banks, especially where the banks have been undercut. The mesh structures, shaped like mattresses, teardrops or sausages according to the holes to be filled, are covered with rubble and soil and seeded with fast-growing plants like wild cane to hold the fill in place. However, this not a long-term solution and will have to be periodically re-implemented to maintain the intended benefits. Ideally, river training works fulfill the following objectives:

1. Protection of the bed and banks of rivers from erosion
2. Directing the river flow in the desired direction
3. Maintenance of river channel for navigation
4. Reclamation of submersible land
5. Protection of surrounding land from flooding
6. Protection of important hydraulic structures

During the year, we were able to undertake several river training activities at a cost of J\$627 million at 15 discrete locations along various waterways. Locations include:

- 1) Porto Bello, St. James.
- 2) Yallahs River, St. Thomas.
- 3) Hope River, St. Andrew.
- 4) Swift River, Portland.
- 5) Llandewey / Cocoa Walk, St. Thomas.
- 6) 9 & 10 Miles, Bull Bay, St. Andrew.
- 7) Murray Gully, St. Thomas.
- 8) May Pen, Clarendon.



Revetment and retaining wall constructed on Harbour side.



Boulder placed on Caribbean Sea side.



Palisadoes roadway being raised.

Notable River Training Projects



River training works in progress at Enfield, St. Mary



Nightingale Grove, St. Catherine



Enfield, St. Mary, before



Enfield, St. Mary, after

Tropical Storm Nicole Drainage Network Construction Rehabilitation Programme

Tropical Storm Nicole passed the island during September 26 to 30, 2010. At that time, we recorded over 670 instances of damage across the road network, including inundated roadways, numerous landslips, fallen trees, breakaways, scouring of road surfaces, flooded drains, damaged traffic signals and damaged gullies. In the immediate post-disaster period, the Agency was assisted through a Caribbean Development Bank (CDB) initiative to re-open blocked roads. However, the road network and its associated infrastructure required more restorative methodology to disaster mitigation. This was achieved through the Agency's securing of a US\$30 million loan from the CDB. The funds have been earmarked for addressing the main problems identified in the Sandy Gully System and was spent during the 2011/12 financial year to undertake construction and rehabilitative works.

During the year, we continued to carryout major repairs and reconstruction works along the Sandy Gully Drainage System. In this venture, we remain grateful to the multi-lateral and bi-lateral development partners, in particular, the Caribbean Development Bank for their kind assistance. Works under Phase 1 of the programme were substantially completed, and Phase 2 projects are progressing on schedule. Approximately twenty (20) contract packages have been procured during the last financial year and the five (5) locations have now been completed. These works have remediated some of the damaged areas. Roughly, 41 rehabilitation projects have commenced under this programme of which 21 have been completed and 20 are currently in progress. A pictorial as at the end of March 2012 on the ongoing Sandy Gully Drainage projects is provided on page 34.

Table 2: CDB Funded Contracts under the Tropical Storm Nicole Drainage Network Construction & Rehabilitation Programme Phase 2

CONTRACT NO.	LOCATION/ PARISH	SUB- CONTRACTOR	ESTIMATED FINAL COSTS (J\$)	PAYMENTS CERTIFIED TO CONTRACTOR	PROGRESS (%)
CDB-SG-01	Dupont Primary School Lime Tree Lane - Olympic Way	General Paving Company Limited	55,940,807.52	33,225,656.33	80
CDB-SG-04	Grove Dale, Drumbair Crescent - Washington Close (Liguagea Prep. - Waterloo Bridge)	Rogers Land Development	195,021,817.63	180,020,517.28	100
CDB-SG-15	Cassia Park Fording – Trade Centre (Wall Construction)	Dwight's Construction Company	58,498,388.79	57,016,808.72	100
CDB-SG-16	Cassia Park Fording - Trade Centre (Invert Construction)	Dwight's Construction Company	161,081,431.83	157,564,194.63	100
CDB-SG-17	Dunbarton Bridge- Molynes Road Jew Gully (Molynes Road-Waltham Park Road) Shoemaker Gully (Holborn Rd. South Ave)	Surrey Paving & Aggregates Limited	157,665,405.96	116,095,948.23	95
CDB-SG-20	Halifax Avenue Lewis Ville Close	Rogers Land Development	99,903,671.99	99,100,802.27	95
GRAND TOTAL			728,111,523.72	635,023,925.46	

Table 3: CDB Funded Contracts under the Tropical Storm Nicole Drainage Network Construction & Rehabilitation Programme Phase 3

CONTRACT NO.	LOCATION/ PARISH	SUB- CONTRACTOR	ESTIMATED FINAL COSTS (J\$)	PAYMENTS CERTIFIED TO CONTRACTOR	PROGRESS (%)
CDB-SG-06	May Pen Cemetery Gully, Studley Park Road – Spanish Town Road	Dwight's Construction	210,012,020.00	123,673,928.82	85
CDB-SG-07	Grants Pen Ford - Mega Mart Water- way via Gore Terrace, Grants Pen Rd - Cruiser Gully - Church - Washington Close & Wiggan Loop Barbican	YP Seaton	79,567,364.00	40,391,897.00	95
CDB-SG-08	Sandy Park Gully Upper Norway Terrace - Norbrook Crescent	YP Seaton	137,339,485.00	25,531,487.65	75
CDB-SG-13	Dames Rd. Bridge (Barnes Gully), Deanery Drive & Glendale Road	Surrey Paving & Aggregates Limited	328,011,972.00	32,801,197.20	55
CDB-SG-14	Lexington Avenue, Lilford - Lady Musgrave, McGregor Gully (1st Avenue) & Mtn. View -Byron Road	Dwight's Construction	189,869,132.00	166,059,394.60	85
CDB-SG-19	Gold Smith Villa	Build Rite	141,829,060.00	131,591,472.56	95
GRAND TOTAL			1,086,629,033.00	520,049,377.83	

Table 4: Petro Caribe Funded Contracts under the Tropical Storm Nicole Drainage Network Construction & Rehabilitation Programme

CONTRACT NO.	LOCATION/ PARISH	SUB- CONTRACTOR	ESTIMATED FINAL COSTS (J\$)	PAYMENTS CERTIFIED TO CONTRACTOR	PROGRESS (%)
1	Jones Town Gully, Kingston, Lime Tree Lane - Olympic Way	Chin's Construction	28,978,070.55	28,919,815.26	100
2	Benson Ford - Norbrook, St. Andrew	Chin's Construction	130,967,753.34	128,906,253.34	100
3	Charlton Avenue - Oliver, St. Andrew	Chin's Construction	226,526,634.51	213,595,049.20	94
4	Shoemaker Gully (Rome), St. Andrew	Dwight's Construction Company	19,562,844.40	17,796,645.20	100

Pictorials - CDB Sandy Gully Project



Dupont Primary School - before and after



Sandy Park, Liguanea - before and after



Grants Pen Ford (Mega Mart) - before and after

Reducing Congestion

... through Effective Traffic Management

Traffic management remains a significant challenge, especially in the nation's urban centres. Consequently, we recognise that we need to think innovatively about how we make better use of our network. Our managed motorways concept through which we dynamically manage the existing road space and actively control traffic is now our standard approach to motorway improvement. To seize success, we will have to develop and deploy strategies that deliver consistent travel corridors. This will require not only careful planning, but also the utilisation of new technologies to better target congestion areas and provide greater traveller information to inform public driving patterns.

During fiscal year 2011-12, no budgetary allocations were provided under Capital A of the GOJ Estimates of Expenditure for Traffic Management activities. Nonetheless, we were able to conduct various traffic improvement activities under various other programmes, such as the JDIP, by integrating traffic improvement solutions in the overall designs/implementation programmes of individual projects. That said, budgetary limitations continue to adversely impact the scope and reach of our interventions to improve the nation's main road network and the quality of life of the motoring public. Funding uncertainty, in particular, retards our ability to plan effectively in an integrated manner that maximizes capital investment and social benefits.

TRAFFIC SIGNAL UPGRADE/REHABILITATION

The upgrading or rehabilitation of the nation's traffic signal plant plays a significant role in ensuring a safe road environment for all road uses. Poor traffic signal timing contributes to traffic congestion and delay. There are more than 250 traffic signals across the island. It is estimated that over 75% of these signals could be improved by updating equipment or by simply adjusting and updating the timing plans. It is further estimated that poor traffic signal timing accounts for 5 to 10% of all traffic delay on major roadways alone. Traffic signal retiming is one of the most cost effective ways to help traffic move and is one of the most basic strategies to help mitigate congestion. Optimizing traffic signals can produce benefit cost ratios as high as 40 to 1.

Increasingly, dated signals are showing signs of deterioration with leaning poles, exposed wiring, blocked conduit, hanging signal heads, and non-functioning pedestrian activated equipment. During the year, we upgraded/rehabilitated traffic signals at thirteen (13) intersections, within Kingston and St. Andrew. Our performance outturn was three (3) more intersections than we had planned to upgrade or rehabilitate for the year. Locations included:

- Half Way Tree Road / Slipe Road / Old Hope Road / Caledonia Avenue
- Caledonia Place (Marescaux Crescent) / Slipe Road
- Dunrobin Avenue / Savannah Avenue.
- Dunrobin Avenue / Lindsay Crescent (Dukharan).
- Dunrobin Avenue / Constant Spring Road.
- South Parade / Lower King Street.
- North Parade / Upper King Street.
- West Parade / Orange Street (West Queens Street)
- East Parade / East Queen Street.
- Orange Street / Beckford Street.

- (West Parade) Orange Street / Heywood Street.
- South Parade / Orange Street.
- Port Royal Street / Pechon Street.



01 Lindsay Crescent (Dukharan). **02** Constant Spring Road. **03** Savannah Avenue. **04** Caledonia Place / Slipe Road. **05** Caledonia Avenue / Old Hope Road. **06** South Parade / Kings Street. **07** Pechon Street / Port Royal Street. **08** West Parade / West Queens Street. **09** Kings Street / North Parade. **10** West Parade / Haywood Street. **11** East Parade / East Queen Street. **12** Orange Street / Beckford Street.

New Traffic Intersection Signals

Our strategy to improve safety and better manage traffic is to undertake corrective measures to reduce conflicts in the traffic environment. Towards this end, we routinely investigate traffic intersections across the island to identify those that are failing and can benefit from being signalized. During the year, we completed the signalization of nine (9) new traffic intersections. These works were undertaken as components of the Dry River Bridge and the Washington Boulevard (5th Road) Improvement Projects. This performance result exceeded the Agency's target of 6 new intersections signalized for the fiscal year by 50%. Locations are provided in the table below.

Installation of New Traffic Intersection Signals

- Washington Boulevard / Cowper Drive
- Red Hills Road / Washington Boulevard North Ramp
- Dunrobin Avenue / Lindsay Crescent
- Harbour View Main Road / Luana Avenue
- Washington Boulevard / Aldene Drive
- Harbour View Main Road / Caribbean Terrace
- Washington Boulevard / Hugh Miller Road
- Harbour View Main Road / Donald Quarrie School
- Red Hills Road / Washington Boulevard South Ramp



Transport and Works Minister, Mike Henry (right) switches on the new traffic lights at the gates of JAMALCO, along the Halse Hall main road in Clarendon.

We received 87 reports of traffic signal failures at various intersections across the island in fiscal year 2011-12. These signal failures were in the parishes of Kingston, Westmoreland, Manchester, St. Catherine, St. Ann and St. James. Most of the reports (54 or 80.6%) were in relation to traffic signals being inoperative. All 87 reports were promptly rectified during the reporting period. Our response rate for 2011 was equal to that of the same period in the prior fiscal year, which saw the organization rectifying all 69 reported traffic signal failures. Inspections were also undertaken for 54 traffic signal intersections in the parishes of Kingston, St. Catherine, Manchester and St. James.



01 Cowper Drive. **02** Dunrobin Avenue / Lindsay Crescent. **03** Aldene Drive. **04** Hugh Miller Road. **05** Red Hills Road North Ramp. **06** Red Hills Road South Ramp. **07** Harbour View Road / Caribbean Terrace. **08** Harbour View Road / Lunar Avenue. **09** Harbour View / Donald Quarrie School

Intelligent Transport System

Traffic congestion continues to be a significant problem in our urban centres islandwide as investment in new road capacity has not kept pace with the growth in urban population. As part of our long-term strategic plans to address the issue of congestion, reduce vehicle operating costs, and enhance the road transport experience of road users, we are moving to establish a modern Intelligent Transportation System (ITS). The deployment of an ITS is widely recognized as the single, most efficient tool to maximize the chances of making the best use of investments, planning and resources, and create a visible profitable outcome. Not surprisingly, our strategy to reduce congestion, travel time and transport costs through effective Traffic Management continue to be focused on the establishment of an ITS.

Once fully deployed, the ITS is expected to enable real-time traffic monitoring, incident management, traveller information, and congestion management on the nation's roadways through a centralized Traffic Management Centre (TMC). For the immediate future, our focus is on establishing a modern communications backbone to support the system. Once realized, this communications backbone will not only improve our operational awareness of our roadways, but also enable the provision of timely and accurate traveller information, and serve as a lynchpin platform to facilitate the establishment of a Public Safety Network, improving real-time communication between first responders and essential government sites.

In addition to the TMC, the ITS includes the foundation of three (3) other major sub-components: (1) an Advanced Traffic Signal Management System; (2) a real time Traveler Advisory System; and (3) a publicly owned National Broadband Communications Infrastructure. Partial funding for the ITS is being derived primarily from the IDB Road Improvement Programme, with some financial support from the Road Maintenance Fund (RMF).

During the year, we made significant progress in finalizing our ITS Strategy document, which will guide our deployment efforts. We were also able to procure 80 kilometres of fibre optic cables and accessories to be installed within the Kingston Metropolitan Area. Financing was provided under the IDB/GOJ Road Improvement Programme.

Case Study:

CROSS ROADS TRAFFIC IMPROVEMENT PROJECT

Improving Safety, Mobility, and Journey Time all in one

In March 2011, we commenced work on the Cross Roads Traffic Improvement Project to improve the mobility of vehicular and pedestrian traffic, and increase overall road safety along the roadway.

During the year, we delivered on a major Traffic Improvement Project geared at cutting congestion and enhancing road safety within the Cross Roads Area, one of the busiest corridors in the Kingston Metropolitan Area. Over the years, under investment in our transport management systems resulted in the Cross Roads area becoming significantly congested, stifling the free flow of traffic, giving rise to unsafe road practices, and dangerous interaction between motorize and non-motorized transport within that area. As one of the two main municipalities in the parish of St. Andrew, and a highly commercialized zone, Cross Roads is the main transit between Half Way Tree and the capital downtown Kingston; hence the need for urgent intervention. The scope of works comprised the construction of sidewalks, kerb and channel, installation of new traffic signals, milling of the road surface, and regulation and road overlay with asphaltic concrete. The project was executed by Pavement and Structures Company Limited at a cost of some J\$64 million. Project financing was secured under the Jamaica Infrastructure Development Programme. We achieved substantial project completion in June 2011. The new traffic signals were fully commissioned into service on the 18th December 2011.

Pictorial Cross Roads Improvement Project



Newly installed road marking arrows along roadway and painted kerb wall along newly constructed side walk



Pedestrian crossing installed along median on Old Hope Road



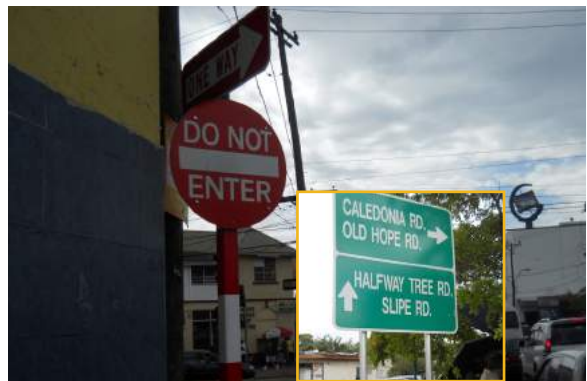
Pedestrian Guard rail installed along median on Slipe Road



Pedestrian Signal in operation at Marescaux Crescent



One way traffic moving along Marescaux Crescent onto Slipe Road.



Newly installed Regulatory and Directional Signage

Preserving of Road Network

Maintenance of the network continues to be our core responsibility. It covers a wide range of essential activities required to keep the network safe and maintained to an optimum level. Over the years, we have engaged in a productive and meaningful tripartite partnership with the Road Maintenance Fund (RMF), and the Ministry of Transport, Works and Housing (MTHW), to deliver main road maintenance activities across the island, that meet the present and future road transport needs of the Jamaican populace. While not as often celebrated as a new construction project, road maintenance remains a critical element, which serves to extend the design life and usability of the nation's road infrastructure. In fact, several studies have shown that poorly maintained roads is anaemic to sustainable growth and leads to reduced mobility of people and goods, increased vehicle operating costs, increased road trauma, and retard social development, especially in rural communities.

Recent reports on the condition of Jamaica's roadways and bridges reveal that many fall short of a state of good repair. This compromises the safety, capacity and efficiency of the road network and retards Jamaica's economic competitiveness. As highlighted in the Jamaica Road Sector Policy and Road Master Plan, Jamaica over the years has not adequately invested in its road network. During the year, we continued to conduct various periodic and routine maintenance activities under the following programmes:

- JDIP/JEEP
- RMF Programmes
- IDB/GOJ 2026 Transportation Infrastructure Rehabilitation Programme

JAMAICA DEVELOPMENT INFRASTRUCTURE PROGRAMME

The Jamaica Development Infrastructure Programme (JDIP) is a major undertaking by the Government of Jamaica to significantly improve the island's road network in order to enhance the quality of life of the citizens of Jamaica, and to stimulate economic development. The Programme represents a US\$400 million Preferential Buyer's Credit (PBC) facility from the Government of China through the China Export-Import Bank. The duration of this loan is five (5) years. The work programme is being implemented by the main contractor China Harbour Engineering Company (CHEC), with sub-contractors where required. The works are supervised by the NWA on the behalf of the Ministry of Transport, Works and Housing.

The deterioration of the nation's road infrastructure has been exacerbated by a series of adverse weather conditions stemming as far back as Hurricane Ivan in 2004 to more recent severe weather formations: Hurricane Dean (2005), Tropical Storms Gustav (2008) and Nicole (2010). In addition, periodic heavy rains continue to have a debilitating effect on the nation's road infrastructure.

Due to the lack of an adequate Capital 'A' Budget to undertake routine and periodic maintenance of the nation's road infrastructure, the overall road condition index continues to wane. Through the JDIP, it is envisaged that the Agency will be equipped to undertake the required road infrastructural works to realize its mission.

The main objectives of the JDIP are as follows:

1. Improve road safety.
2. Increase capacity of roads to manage vehicular volume.
3. Improve traffic management.
4. Rehabilitation of approximately 300 km parochial roads.
5. Rehabilitation of approximately 270 km of main roads.
6. Periodic maintenance of roadways.
7. Bridge construction and rehabilitation.
8. Protection of roadways and property via retaining wall construction.
9. Protection of roadways and property via river training activities.
10. Institutional Strengthening.

A number of these very important projects have resumed and this situation brings a measure of relief to the Agency. The delays in resuming the identified/implemented interventions under this programme were regretted as they were already improving the daily lives of the commuters across the country. Although there have been a number of negative reports and demonstrations by citizens in the previous month, the Agency continue to reiterate that many communities are being positively impacted. In fact, the reality is that once it is known that one project has restarted, the other areas quickly move to ensure that others are also resumed.

Table 5: Jamaica Development infrastructure Programme (JDIP)

PROJECT	SCOPE OF WORKS	PROJECT COST (CUMULATIVE)	START DATE	REVISED END DATE	PROGRESS (%)	COMMENTS
Jamaica Development Infrastructure Programme (incl JEEP)	Rehabilitation of Road Network	US\$400M	Oct. 2010	Sept. 2013	95%	In progress
Special Routine Maintenance (SRM)	Routine Maintenance of Road Network	J\$1,044.5M	Dec. 2011	Jan. 2012	100%	Substantially Completed
Critical Retaining Walls (CW)	Construction of Critical Retaining Walls	J\$1434.3M	Oct. 2010	Sept. 2013	97%	Substantially Completed
Road Rehabilitation (RW)	Rehabilitation of Road Network	J\$20,164.8M	Oct. 2010	Sept. 2013	95%	In progress
Island Wide Patching (IWP)	Patching of Road Network	J\$699.4M	Oct. 2010	2011	100%	Substantially Completed
Supply of Modular Bridge	Procurement and Construction of Bridges/Parts	J\$456.3M	Oct. 2010	Mar. 2013	100%	Substantially Completed
Traffic Management (Project Signs)	Installation of signs	J\$36.2M	Oct. 2010	Mar. 2013	100%	Substantially Completed
Design/Professional Fees (Work Order 9)	Design/ Professional Fees	J\$987.5M			87%	In Progress
JDIP Major Projects Christiana Development Road, Manchester	Construction of new 1km road	US\$10.34M	Mar. 2011	Mar. 2012	100%	Substantially Completed
JDIP Major Projects Rio Grande Bridge Portland	Construction of 210m Bridge 500m road	US\$28.3M	Oct. 2010	Jul. 2012	99.9%	Substantially Completed

Table 5: Jamaica Development infrastructure Programme (JDIP) contd.

PROJECT	SCOPE OF WORKS	PROJECT COST (CUMULATIVE)	START DATE	REVISED END DATE	PROGRESS (%)	COMMENTS
JDIP Major Projects Fern Gully Rehabilitation, St. Ann	Stage 2 (1.4km) Stage 3 (1.6km)	J\$680M Stg 2 (J\$235M) Stg 3 (J\$445M)	Mar. 2011	Sept. 2013	96%	Stage 2 (99%) substantially completed Stage 3 (92%) in progress
JDIP Major Projects Westmoreland Bridge St. Mary	Construction of 180m bridge	US\$13.5M	Mar. 2012	Jun. 2013	94%	Substantially Completed
JDIP Major Projects Queensborough Bridge, St. Andrew	Construction of 30m bridge	J\$154.3M	Jul. 2012	Jun. 2013	99%	Substantially Completed
JDIP Major Projects Cassia Park Bridge St. Andrew	Construction of 38m bridge	J\$183.8M	Jul. 2012	Jun. 2013	99%	Substantially Completed
JDIP Components Institutional Strengthening	Procurement of vehicles, equipment, refurbishment Training	J\$155M			100%	Substantially Completed
Special Routine Maintenance (JEEP Phase 1)	Bushing, Drain Cleaning, Patching of Road Network	J\$835M	Apr. 2012	Oct. 2012	97%	Substantially Completed
Additional Road Works (RW) Work Order 13	Additional Road Rehabilitation Works	J\$1,444.3M	Oct. 2012	Sept. 2013	85%	In Progress
Island Wide Patching (IWP) Work Order 14	Bushing, Drain Cleaning, Patching of Road Network	J\$791M	Oct. 2012	Mar. 2013	100%	Substantially Completed
Special Routine Maintenance Work Order 15	Bushing, Drain Cleaning, Patching of Road Network	J\$1,056.4M	Oct. 2012	Sept. 2013	86%	In Progress
Special Routine Maintenance (JEEP Phase 2) Work Orders 16-21	Bushing, Drain Cleaning, Patching of Road Network	J\$1,510.1M	Jan. 2012	Sept. 2013	65%	Substantially Completed

As was previously reported, the rapid pace of activities and the increased scope of the works performed throughout the last financial year, means that the approved loan from China Exim Bank has been substantially committed, and that if the proposed works continue according to the current plans, the JDIP will be completed ahead of schedule by the end of fiscal year 2012-2013 or Year 3 of the five year programme.

Three (3) major projects, the completed Christiana Development Road in Manchester, the Rio Grande Bridge in Portland and the ongoing Westmoreland Bridge in St. Mary, are being done under the direct supervision of the Contractor (CHEC). These projects are expected to provide not just first class access to the communities they serve, but also to stimulate economic development in the neighbouring areas. The Christiana Development Road project was substantially completed earlier in the fiscal year.

As well, works continue on three (3) other major projects: The Fern Gully Rehabilitation works and the bridges over Queensborough and Cassia Park fords.

Jamaica Emergency Employment Programme (JEEP)

Officially launched during the fiscal year, the Jamaica Emergency Employment Programme (JEEP) was instituted as a temporary measure to respond to years of chronic unemployment, which became exacerbated in the wake of the 2008 global financial crisis. The programme targets persons in low income groups, those with special needs, low skills levels, as well as those from under-served communities. Designed as a multi-sectoral and multi-disciplinary Scheme, JEEP spans several Ministries, Departments and Agencies, namely: the Ministry of Transport, Works and Housing (NWA), the Ministry of Education (HEART Trust/NTA), the Ministry of Youth & Culture (NYS), the Ministry of Labour & Social Security, Ministry of Agriculture, and the Ministry of Tourism & Entertainment.

The newly elected Administration on its entry to Office directed that US\$50 million of JDIP funds be made available to finance the JEEP. Consequently, the NWA is only responsible for administering JEEP works implemented under the JDIP. As special routine maintenance component to the JDIP, JEEP is comprised of activities, such as, pothole patching, bushing, installation of traffic signs, sidewalk repairs, kerb painting, and river training works. A breakdown of Phase 1 of the Programme is outlined in the table below. The inclusion of JEEP works expanded the geographical reach of the larger JDIP, impacting a number of communities that would otherwise not have been directly impacted. JEEP activities are labour intensive and can be easily performed under supervision, utilizing the skills of currently unemployed but experienced and trained construction workers.

While there was some disquiet about the exact nature of this programme, we are pleased that the majority of elected representatives have embraced this programme and submitted projects proposals, which are being costed and evaluated for implementation. The first phase of the JEEP got underway in the last month of the financial year, with only a few projects. More complete details of the projects and their progress are presented in our monthly reporting on the progress of the JDIP.

Critical Retaining Walls Project (JDIP)

Retaining walls are critical to the protection of the nation’s road infrastructure and slopes, thereby improving safety and ensuring increased availability of our roadways. In general, a retaining wall is a structure that holds back soil or rock from a building, structure or area. Retaining walls prevent down slope movement or erosion and provide support for vertical or near-vertical grade changes. These are particularly useful where there is a change in level within a restricted area and insufficient space for banks of appropriate slope. Retaining walls have gained favor over poured-in-place concrete walls or treated-timber walls, as they are often more economical, easier to install and more environmentally sound.

Over the years, many of the island’s retaining walls have sustained extensive damage from extreme weather systems, the most recent being Tropical Storm Nicole in September 2010. The Agency utilizes both random rubble and gabion retaining walls design models. Throughout fiscal year 2011-12, there are four (4) random rubble retaining wall contracts, consisting of eleven (11) sub-projects, active under the JDIP Retaining Walls programme, valued at a total revised sum of J\$462.5 million. A breakdown of the contracts, active sub-projects, overall progress, and financial details are provided in the Table below. The projects are expected to be substantially completed by June 2013.

*Table:6 Summary JDIP Critical Retaining Wall Programme
Contract Packages shaded in grey were substantially completed on/or before 31st March 2012*

CONTRACT PACKAGE - TYPE OF WORK	LOCATION/ PARISH	SUB- CONTRACTOR	PROGRESS (%)	ESTIMATED PROJECT COST	EXPENDITURE TO DATE
				(J\$)	
CW-002 Random Rubble Wall	Mount Horeb NWA Class B Road	Rogers Land Development	90%	38,119,679.25	22,344,355.70
	Papine - Hardware Gap (Damage at up Yonder) MP15 - 16	Rogers Land Development	95%	28,509,892.99	26,104,071.53
	Noland Hill - Border Breakaway	Rogers Land Development	80%	29,403,844.77	24,481,377.89
	Noland Hill - Border Breakaway (Oberlin Breakaway 'B')	Rogers Land Development	90%	21,101,887.24	5,029,441.77
	Rockhall - Parks Road (Allman Hill Breakaway)	Rogers Land Development	80%	29,761,403.42	23,384,221.85
CW-002 TOTAL	Mount Horeb B, Papine - Hardware Gap (Damage at Up Yonder), Redlight - Hardware Gap, St. Andrew	Rogers Land Development	89%	168,365,210.34	122,811,812.62
CW-005 Random Rubble Wall	Jacks Hill Road NWA Class C Road	Rogers Land Development	75%	84,533,244.53	65,780,471.13
	Persimmon Avenue Gully PC Road	Rogers Land Development	55%	65,174,672.91	23,122,297.32
CW-005 TOTAL	Goulbourne Road, Jacks Hill Road, Persimmon Avenue Gully, St. Andrew & Black River Sea Wall, St. Elizabeth	Rogers Land Development	77%	224,022,809.50	163,217,660.51
CW-006	Danvers Pen, St. Thomas	Alcar Construction & Haulage Company	95%	48,504,120.48	46,629,060.16
CW-006 TOTAL	RCB Culvert Highfield Drive, Spanish Town, St. Catherine Llandewey - Cedar Valley, St. Thomas	Alcar Construction & Haulage Company	99%	259,672,336.57	257,768,646.85
CW-007 Random Rubble Wall	Redlight - Hardware Gap Mile Post 14 - 15, St. Andrew	Rogers Land Development	99%	37,168,754.14	35,998,700.29
	Papine - Hardware Gap (Damage at Up Yonder # 2), St. Andrew	Rogers Land Development	78%	23,270,696.65	14,521,956.00
	Papine - Redlight M.P. #8	Rogers Land Development	78%	56,939,698.52	50,289,232.52

CONTRACT PACKAGE - TYPE OF WORK	LOCATION/ PARISH	SUB- CONTRACTOR	PROGRESS (%)	ESTIMATED PROJECT COST	EXPENDITURE TO DATE
				(J\$)	
CW-007 TOTAL	Halls Delight, Redlight – Hardwar Gap Mile Post 14 - 15, Redlight - Hardware Gap Mile Post 16 - 17, Papine - Hardware Gap (Damage at Up Yonder # 2), Papine - Redlight M.P. #8 & Cavaliers Breakaway, St. Andrew	Rogers Land Development		393,719,921.14	339,312,625.50
CW-01 TOTAL	Gorden Hill to Kentish, Point Hill to Rennals, Bamboo to Worthy Park, St. Catherine	Brighton Engineers Limited	100%	89,258,544.63	89,258,544.63
CW-03 TOTAL	Border - Cuffy Gully, St. Mary	Y.P. Seaton & Associates Company	100%	50,621,022.44	50,621,022.44
CW-004 TOTAL	Comfort Castle Alligator Church, Portland	N.F. Barnes Construction & Equipment Company Limited	100%	178,401,926.70	178,401,926.70
CW-008 TOTAL	Lime Hall, Milford Box Culvert, St. Ann	General Paving Company Limited	100%	17,727,927.58	18,063,549.87
CW-009 TOTAL	Papine - Redlight - Hardwar Gap (M.P. 9-10, 12-13, 13-14), St.	Alcar Construction & Haulage Company	100%	20,988,805.75	20,988,805.75
CW-010 TOTAL	Papine - Redlight - Hardwar Gap (M.P. 11, Crystal Edge Breakaway Irish Town), St. Andrew	Build Rite Construction Company	100%	31,664,500.29	31,664,500.29
CRITICAL RETAINING WALLS (CW-001 – CW-010) GRAND TOTAL				1,345,184,761.02	1,182,850,550.53

JDIP (Islandwide Patching)

During fiscal year 2011-12, we continued to implement Patching works under the JDIP Islandwide Patching Programme. As at close of the year, some J\$699M had been expended on this programme (see Table).

Table 7: JDIP Islandwide Patching Programme Fiscal year 2011-12 as at March 31, 2012

CONTRACT NO./ SUB-CONTRACTOR	LOCATION/ PARISH	ESTIMATED FINAL COSTS (J\$)	EXPENDITURE TO DATE (J\$)	PROGRESS
IWP-001A General Paving Company Limited	Clarendon, Portland, St. Ann and St. Mary	107,521,631.70	107,521,631.70	100%
IWP-001B Asphaltic Concrete Enterprise	Kingston, St. Andrew, St. Ann, St. Catherine and St. Thomas	287,454,046.27	287,454,046.27	100%
IWP-002 S&G Road Surfacing Materials Limited	Clarendon, Manchester, St. Ann, St. Elizabeth, Trelawny and Westmoreland	124,874,514.03	124,874,514.03	100%
IWP-003 Pavement & Structures Limited	Kingston, Portland & St. Andrew	60,287,263.92	60,287,263.92	100%
IWP-004 Surrey Paving & Ag- gregates Company Limited	Clarendon, Hanover, St. Andrew, St. Catherine, St. James and Trelawny	119,252,925.95	119,252,925.95	100%
TOTAL		699,390,381.87	699,390,381.87	

Road Rehabilitation Projects (JDIP)

Overall, there are currently 45 road work contracts in place with over 160 sub-projects, contracted in the sum of J\$20.3 billion. These works include Micro-Surfacing, Double Surface Dressing (DSD), and Asphaltic Concrete Overlay (A/C).

Micro-Surfacing Works

Micro-surfacing is a polymer-modified asphalt and aggregate mixture designed to protect the pavement and provide a skid-resistant wearing surface. It maintains the road infrastructure by filling and sealing small surface cracks thereby providing a new wearing surface. During the year, a cumulative 164,349m² of micro-surfacing and sheet patching was implemented, at a cost of some J\$395 million. The locations include:

KINGSTON AND ST. ANDREW

- Upper Waterloo Road,
- Oliver Road
- Havendale & Hughenden Community (includes Manning Hills Road, Fairfax Drive, Border Avenue, Vermont Avenue, Coolshade Drive,
- Havendale Drive, and Hughenden Avenue)
- Roehampton Drive and Roehampton Close
- Mona Roads (includes Daisy Avenue, Gerber Drive, Cactus Way, Gardenia Avenue and Aralia Drive

MANCHESTER

- Caines Shop – Skull Point (Devon Road)

Routine Maintenance

We are mandated to undertake routine maintenance on the road network. This serves to arrest the deterioration of the road infrastructure and, by extension, is vital to extending the life span of the nation's roadways. Routine Maintenance covers a wide range of essential activities required to maintain a peak level of performance:

Routine maintenance: such as clearing debris, litter and hazardous defects, clearing drains, and cleaning and replacing signs

Road renewals: including: new road surfaces, and other roadworks such as sidewalks, cycle tracks, safety fences and drains

Structures renewals: for example the repair and rebuilding of bridges and culverts

Technology renewals: including repair of traffic signals, CCTV cameras, and other related field equipment.

Traditional sources of funding to finance these activities are provided by the Government of Jamaica through its Capital 'A' budgetary allocations, and the Road Maintenance Fund (RMF). For fiscal year 2011-12 there was no provision for routine maintenance activities in the GOJ Estimates of Expenditure. However, the RMF was able to provide financial support of some J\$2 billion. This current level of expenditure, is able to cover only 20 percent of our road transport maintenance needs. Nonetheless, RMF-funded programmes such as the islandwide patching programme, provides critical near term interventions. These programmes, in no small measure, help to ensure the sustainability of the network as a strategic national asset of vital importance for the continued national growth and development. Albeit, the fact the RMF derives its inflows from fuel taxes, does present some limitations over the scope and reach of the projects it can finance.

Under our 2011-12 Routine Maintenance Programme, we were able to implement four (4) major mitigation programmes, as follows:

- J\$100M Hot Mix Patching Programme
- J\$150M Islandwide Spray Patching Programme
- J\$100M Emergency Drain/Gully Cleaning Programme
- J\$163M Bushing and Drain Cleaning Programme

Hot Mix Patching Programme

Under this programme, a cumulative 42,200m² of hot mix patching was achieved. Locations included:

- Stony Hill – Parks Road, St. Andrew
- Noland Hill – Border, St. Andrew
- Santa Maria – Turnbridge, St. Andrew
- Brown's Town – Alexandria, St. Ann
- Brown's Town – Bamboo, St. Ann
- Golden Grove – Davis Town, St. Ann
- Mount Diablo – Moneague – Green Park, St. Ann
- Freetown – Four Paths, Clarendon
- Claremont – Harmony Vale, St. Ann
- Burke Road, St. Catherine
- Tom's River – Agualta Vale, St. Mary
- Frankfurt – Gayle, St. Mary
- Fairfiled – Point, St. James
- Middle Quarters – Jacks Gate, St. Elizabeth
- Hagley Park Road, Kingston
- May Pen – Chapelton, Clarendon
- Falmouth – Springvale, Trelawny
- Church Corner – Morant River Bridge, St. Thomas
- Naggo Head – Dawkins Pen, St. Catherine
- Old Harbour Round-a-bout – Flat Bridge, St. Catherine

Islandwide Spray Patching Programme

Under this programme we were able to accomplish approximately 60,500m² of spray patching across Jamaica. Locations included:

- Mocho – Parnassus, Clarendon
- Freetown – Four Paths, Clarendon
- Sour Sop Turn – Danks, Clarendon
- Buck Avenue, Clarendon
- Bryant Crescent, Clarendon
- Penguin Key, Clarendon
- Hazard Drive, Clarendon
- Palm Avenue, Clarendon
- Jackson Street, Clarendon
- Denbigh Crescent, Clarendon
- Fernliegh Avenue, Clarendon
- Red Hills – Rockhall, St. Andrew
- Sligoville, St. Catherine
- Salt Pond Road, St. Catherine
- Mandela Highway, St. Catherine
- Black River – Pedro Cross, St. Elizabeth
- Williamsfield – Fullerswood, St. Elizabeth
- Pedro Cross to Lititz, St. Elizabeth
- Brown's Town – Stewart Town, St. Ann
- Julius Road, Kingston
- East Street, Kingston
- Knutsford Boulevard, Kingston
- Heroes Circle, Kingston
- Spanish Town Road, Kingston
- Tenth Street, Kingston
- Collie Smith Drive, Kingston
- Paradise Street, Kingston
- Briden Street, Kingston
- Hagley Park Road, Kingston
- Molynes Road, Kingston
- Red Hills Road, Kingston
- Tom Redcam Avenue, Kingston
- Whitehall Avenue, Kingston
- Penn Street, Kingston
- Constant Spring Road, Kingston
- Eastwood Park Road, Kingston
- Cargill Avenue, Kingston
- Priory – Bamboo, St. Ann

Fern Gully Rehabilitation Works, St. Ann (Stages 2 & 3)

A major project under the JDIP, Fern Gully is currently undergoing extensive rehabilitation works. Located in Ocho Rios, St. Ann, one of the island's prominent tourist towns, Fern Gully was extensively damaged by flood rains in April 2008. In collaboration with the Tourism Product Development Company (TPDCo), the NWA completed Stage 1 of the Fern Gully Project in fiscal year 2009/10. Stages 2 and 3 of this project currently underway represent an investment of J\$123 million in asphaltic concrete overlay, which spans some 3.6 km of roadway from Colegate to Fern Gully. The Milford Road Box Culvert will also be reconstructed as a part of this project.

The main objectives of the project are:

1. To substantially reduce the possibility of flooding in Ocho Rios from storm water runoff coming from Fern Gully and its environs, by the construction of the required storm water drains.
2. To improve the quality of the driving surface by the placement of concrete driving surface and the rehabilitation of sections of the existing asphalt pavement.
3. Reduce the maintenance cost, and by extension, reduce the length of time the road remains closed during the design life span of the road.

The Work Order between the NWA and CHEC for the rehabilitation works in the Fern Gully is in the amount of J\$680,108,955.62. The works are divided into the following two (2) phases to be executed concurrently:

- Phase 2 (J\$234,886,698.05), the construction of approximately 1.40 kilometres of rigid pavement along the existing Fern Gully route together with the associated drainage works.
- Phase 3 (J\$445,222,257.56), the construction of reinforced concrete storm water drain, box culverts, pedestrian sidewalks, protective handrails and the rehabilitation of the existing asphaltic concrete roadway.

At the end of the year, Stage 2 of the project was 80% complete, with one way traffic (north bound) scheduled to be restored to the motorized public in December 2012. Minor outstanding and repair works are presently underway.

Work on Stage 3 is ongoing and a revised work programme for completion of the project has been submitted to the NWA that indicates a scheduled substantial completion date in February 2013. The total value of work certified to date is J\$386,701,549.10.

Performance Based Road Maintenance

This programme component will finance the design and test implementation of performance-based road maintenance contracts. Under the revised framework, the National Solid Waste Management Agency (NSWMA) was selected to execute hybrid performance-based maintenance contracts, which involves fixed monthly payments for keeping the roads in pre-defined conditions, as well as unit pricing for works executed. The target location is the Northern Coastal Highway spanning Negril, Westmoreland to Port Antonio, Portland. This corridor spans approximately 300 kilometres of roadway, but the area of work comprise approximately 260 kilometres. The works will largely consist of bushing, drain cleaning and removal of debris along the roadside. Negotiations with the NSWMA led to an agreement in fiscal year 2011/12, establishing a six-week intervention cycle with a fixed payment of J\$20 million for approximately two (2) years at a total cost of J\$340 million.

Since programme inception, ten (10) cycles have been completed, equivalent to 2,325.92 kilometres of bushing activities conducted, with a combined work value of J\$164.43 million. At the end of the year there is a cumulative J\$35.57 million variance in planned allocation (J\$200 million) versus actual work value (\$164.43 million) to date. This variance is due to the inability of the NSWMA to meet the agreed 271.59 kilometres (or 96% of total network length) performance target per cycle. However, it must be noted that the NSWMA for the first time was able to exceed the agreed performance target in Cycle 9 and maintained this performance in Cycle 10. The Tables below provides a breakdown of completed works undertaken and work values from Cycle 1-10.

Table 8: Performance Summary

PLANNED CYCLES	ACTUAL CYCLES	YTD RESULTS	OVERALL PROJECT RESULTS	FINANCIAL PROGRESS
10	10	2,220.16 km of bushing activities conducted, valuing a total of J\$156.95 M (Cycles 2-10)	Cumulative 2,325.92 km of bushing activities conducted under the programme to date, valuing some J\$164.43M	Based on performance J\$164M has been disbursed relative to J\$180M allocated

Transportation Infrastructure Rehabilitation Programme IDB/GoJ Loan 2026

The 2011 Atlantic Hurricane Season had devastating effects on the nation's road infrastructure. In response to this disaster, the Government of Jamaica secured a US\$23 million loan from the Inter-America Development Bank (IDB) to undertake complex civil works across the island. Over 52 km of road rehabilitation and 25,000m³ of revetment work are to be undertaken through this initiative.

At the end of fiscal year 2011-12, the Yallahs Bunding and Earth Works Projects in St. Thomas have been substantially completed, while the remaining projects are at advanced stages of completion. A contract was awarded to Asphaltic Enterprise (Bacchus Engineering) in the sum of J\$407 million to undertake the 15 km waterline project to ensure the sustainability of the Scott Cove to Belmont roadway after the patching work has been completed. The contract is expected to be signed in fiscal year 2012-13. The Roselle, St. Thomas retaining wall has been completed with \$28 million certified payments to date. While the associated revetment works are estimated to be 40% completed, and is scheduled for completion early in the next fiscal year. The individual project status of the remaining TIRP Loan # 2206 Road Rehabilitation Projects are shown in the Table on page 56.

Table 9: Transportation Infrastructure Rehabilitation Programme Summary (IDB/GOJ Loan 2026)

PROJECT	SCOPE OF WORKS	ESTIMATED FINAL COST	CONTRACTOR (SUBCONTRACTOR)	START DATE	END DATE	PROGRESS (%)	COMMENTS
Scotts Cove to Belmont (Gillings Gully section)	13.7km Road Rehabilitation	J\$279M	Asphaltic Enterprise Limited	Nov. 2011	May 2012	30%	To be completed in July 2013
Ferris Cross to Belmont	8.5km Road Rehabilitation	J\$497	Asphaltic Enterprise Limited	Sept. 2012	Mar. 2013	75%	Ongoing
Red Hills to Santa Maria	6.5km Road Rehabilitation	J\$212M	General Paving Limited	Jun. 2012	Dec. 2012	97%	Completed
Yallahs River	1.2km Bunding Works	J\$118M	Surrey Paving Limited	Jun. 2012	Sept. 2012	100%	Completed
Yallahs River	1.5km Earth Works	J\$97M	NWA by Force Account	Feb. 2012	Aug. 2012	100%	Completed
Roselle	700m Revetment Works & Random Rubble (RR) Wall	\$229M	NWA by Force Account	Nov. 2011 (RR wall) Sept. 2012 (Revetment)	Feb. 2012 (wall) Mar. 2013 (Revetment)	100% (RR wall) 90% (Revetment)	Wall completed Revetment on going

Case Study:

DOWNTOWN KINGSTON ROAD IMPROVEMENTS

We are also contributing to this redevelopment by the rehabilitation of roadways in Downtown Kingston and Newport West with an injection of over one billion dollars. This is being done as a part of the Jamaica Development Infrastructure Programme (JDIP). Nearly 700 million dollars was spent on this effort on roads in the Downtown business district. Additionally, rehabilitative works were implemented in New Port West, the shipping hub of the island. These works are valued at over J\$300 million dollars.

During the year, we improved twelve (12) corridors in the Downtown Shopping district, twelve corridors under the JDIP. These are: Ocean Boulevard, which is along the waterfront; East, West, North and South Parade; Orange Street, one of the most heavily trafficked roadway in Downtown Kingston; Port Royal Street, the main thoroughfare westbound from Norman Manley Boulevard; Water Lane; Pechon Street, West Queen Street; Heywood Street and Harbour Street, another heavily trafficked corridor. Under the programme these roadways benefitted from improved drainage, new Asphaltic Concrete wearing surface and in some instances sidewalks. Harbour Street was also extended by one kilometre. These rehabilitation projects were completed by December 2011 at a cost of over J\$1billion.

In addition, works which began in Newport West in November 2010 were also completed. Under the programme of works some 2.7 kilometres of roadways were rehabilitated. These include First Street, Second Street, and Sixth Avenue and Eight Avenue, link roads, parking bays, gateways and entrances. As well, significant improvement works are also being made to the drainage system.



Ocean Boulevard and Orange Street

BRIDGE WORKS

Bridge Work Projects include repair and replacement of bridge railing, decks, approaches and substructures / Erosion protection / Removal of Drift and Debris. During the year, bridge works were implemented under two (2) programmes, namely TIRP and JDIP. For fiscal year 2011-12, eight (8) bridge work projects were targeted for completion. At the close of the year, 8 bridges/structures construction projects were completed. These include:

Three (3) box culverts constructed under the CDB Washington Boulevard Improvement Programme.

- One (1) box culvert completed at Enfield in St. Mary
- Eleven Miles Eastern Box Culvert in St. Thomas
- Dry River Bridge

In addition to the above works, seven (7) additional bridge works were in progress at the end of the year, including:

- Cassia Park Bridge, Kingston
- Queensborough Bridge, Kingston
- John's Hall Bridge, St. James
- Rio Grande Bridge, Portland
- Shooting River Bridge, St. Thomas
- Montego River Bridge, St. James
- Tiber River Bridge, St. Mary

A summary of Bridge/Structure Construction Projects is provided on page 60.

Rio Grande Bridge, Portland

The progress of the bridge construction is well advanced with the piling works, abutments, piers and the launching of the girders all completed. Work is in progress on the deck of the bridge, on the base and embankment fill, as well as on a tunnel which is being built as part of a larger plan to resuscitate the rail service. The project is estimated to be 80% complete.

Eden River Bridge, St. Mary

The existing bridge is a very narrow double span, concrete deck on steel girders bridge. Located in the parish of St. Mary, it crosses the Oracabessa River. The bridge's sole intermediate pier support is settling, as its foundation has been undermined by scour. The bridge is located at a bend in the river and protective river bank protection is necessary to contain the river within its banks and to prevent damage to the new bridge. The proposed bridge has been designed, with bridge components currently in NWA Storage.

John's Hall, St. James (JDIP)

The John's Hall main road which forms part of the Fairfield to Point Control section in St. James serves hundreds of residents from communities such as Maroon Town, Flamstead, and Spring Mount, among others. The corridor is also a main point of travelling to and from Montego Bay for persons from the North-eastern and North-western sections of St. Elizabeth. The John's Hall section of the roadway has, for years, been a major source of concern, as soil movements have severely undermined the quality of the road, putting road users at risk.

The Worcester Bridge located in the community has also been badly compromised, resulting from earth

movement and erosion of its abutments. The main objective of this J\$509 million project is therefore to realign the problematic section of the road as well as replace the defective Worchester Bridge. The scope of works calls for the construction of:

- 600 m double-surface dressed roadway;
- Two (2) reinforced Box Culverts;
- One (1) metal Bridge; and
- Retaining walls and protective works

At the end of the review period, overall physical progress is estimated at 47%, with the value of measured works amounting to approximately J\$163 million. Progress for the major project items are provided below:

Site Clearance	60 %	Earthwork	60 %
Box Culvert # 1	90%	Box Culvert # 2	80%
Metal Bridge	0%	Temporary Bridge	100%
Roadway	40%	Detour Roadway	100%

Bull Bay Compact 200 Bridges

Two communities in the Bull Bay area used to be cut off from Main road access. Citizens were forced to traverse the river in high runoff periods. The existing bridges have been installed and river training done to contain the river within its banks.

Located in the Bull Bay community of St. Thomas, the Eleven Miles Fords have been in deplorable conditions over the years and were determined to represent a safety issue during high rainfall events. As the main thoroughfare between the eastern end of the country and Kingston, the area is heavily traversed. Amongst the frequent road users are heavily laden aggregate trucks, which have contributed to the deterioration of the fordings and their approaches. During instances of intensive rainfall, motorists are at risk and St. Thomas is at risk of being cut off from Kingston at these locations. Accordingly, the Agency will be constructing two (2) box culverts to address this issue.

Port Maria Pedestrian Bridge, St Mary

A compact 200 modular pedestrian bridge is proposed to replace the collapsed structure and restore access for residents of Port Maria between the main business area (east) and the west bank.

Cassia Park and Queensborough Fords, St. Andrew (JDIP)

The Cassia Park and Queensborough Fordings are major thoroughfares leading to the Red Hills and Molyne Road area in Kingston, and represent viable bypasses to other congested thoroughfares in the capital city. During periods of heavy rainfall, the fords are rendered impassable and their inundation has in the past resulted in the loss of lives and property. These projects are expected to significantly reduce congestion on the main roads nearby, and provide notable social benefits to the impacted communities.

For the bridge over the Cassia Park Ford, the Agency is constructing a 2-lane, 38km span plate girder super-structure with sidewalk railings and approaches. This J\$151.3 million project is being implemented by YP Seaton, a sub-contractor to CHEC. The contract amount was revised to J\$183.8 million in fiscal year 2011/12. At the end of the review period, overall physical progress is estimated at 96.6% against a targeted 100% completion, with J\$169 million in payments certified to date.

The Agency is constructing a 2-lane 30m span plate girder super-structure with sidewalk railings and approaches at the Queensborough Ford. The project cost is J\$154.3 million. At the end of March 2012,

overall physical progress is estimated at 89% against a performance target of 100% completion. Payments certified to date amount to J\$137 million.

Both the Cassia Park and Queensborough Bridges are programmed to be substantially completed in fiscal year 2012-13.

Westmoreland Bridge, St. Mary

With the passage of Tropical Storm Gustav in August 2008, the existing Westmoreland Bridge in St. Mary was extensively damaged beyond repair, due to the collapse of its two (2) interior piers and an internal truss span.

This bridge afforded ready access to the town of Highgate and its environs in St. Mary. The Agency immediately established an alternate detour to these areas and beyond. However, this temporary remedy was considered onerous by road users, and resulted in considerable travel time.

Through the JDIP, CHEC is contracted to construct a new bridge at this location. The Westmoreland Bridge project comprises a six-span 180 m long pre-stressed concrete bridge, 12.51m wide to accommodate two (2) lanes of traffic and two (2) sidewalks for pedestrian use. The design also entails 44.4m of approach embankment to the bridge as well as the demolition and reconstruction of a single span 8m concrete bridge, and the execution of 140m gabion basket scour protection works.

During the year, design works continued on this project, with kick off scheduled for early fiscal year 2012-13.

Table 10: Summary of Bridge Construction Works Undertaken by the NWA during FISCAL YEAR 2011-12

PROJECT	CONTRACTOR (SUB-CONTRACTOR)	SOURCE OF FINANCING	ESTIMATED FINAL COSTS (J\$)	PROGRESS (%)	Comments
Crooked River, Clarendon	Build-Rite Construction Company Limited	JDIP	J\$39.1M	100%	Substantially Completed
Eden River Bridge, St. Mary	Dwight's Construction Company Limited	JDIPt	J\$17M	100%	Substantially Completed
Dawkins Pen (Three Sisters), Clarendon	Dwight's Construction Company Limited	JDIP	J\$83.1M	100%	Substantially Completed
Southwood Bridge	Tankweld Construction Company Limited	JDIP	J\$24.3M	30%	To be completed by July 2013
Craigmill Modular Bridge	Dwight's Construction Company Limited	JDIP	J\$26.6M	50%	To be completed in June 2013
Fontabelle Modular Bridge	Dwight's Construction Company Limited	JDIP	J\$15.2M	100%	Substantially Completed
Dover Castle Bridge	Aegisco Limited	JDIP	J\$23.4M	100%	Substantially Completed
Stony Bridge Box Culvert	D.R. Foote Construction Company Limited	JDIP	J\$20M	80%	To be completed May 2013
Kintyre Modular Bridge	Dwight's Construction Company Limited	JDIP	\$100M	25%	To be completed June 2013
Rio Grande Bridge	CHEC	JDIP		80%	To be completed October 2012
John's Hall Bridge	CHEC (YP Seaton)	JDIP		62%	To be completed by June 2013
Cassia Park Bridge	CHEC (YP Seaton)	JDIP		96.6%	To be completed by June 2013
Queensborough Bridge	CHEC (YP Seaton)	JDIP		89%	To be completed by June 2013
Robin's Bay Box Culvert	Dwight's Construction Company Limited	JDIP	J\$34M	10%	To be completed by June 2013
Westmoreland Bridge, St. Mary	CHEC	JDIP	US\$13.5M	88%	To be completed by July 2013

BRIDGE/STRUCTURE INSPECTION

Consistent with our mandate to ensure that the nation's roadways are kept in a good state of repair we conduct routine bridge inspections across the main road network. The data compiled from these inspections are analysed, and the findings and recommendations outlined in an islandwide Bridge Condition Survey Report, which is in turn used to inform decision-making and policy. For fiscal year 2011-12, the Agency targeted the undertaking of 75 bridge inspections. During the review period 171 inspections were conducted as follows – Clarendon (17), St. Thomas (33), St. Catherine (24), Portland (50), and St. Mary (47).

Improving Our Business Efficiency

A significant focus of the Agency is aimed at making measurable improvements in Jamaica's main road network, and the quality of life of all Jamaicans. We intend to accomplish this goal by maximizing value for money in the Jamaican people's roadwork investment. This means controlling our overheads and reducing our expenditure per kilometre of roadways. We strive to ensure optimal levels of efficiency in our operations by maintaining high quality standards; incorporating best practices in roadwork investments; and maintaining tight internal control systems to mitigate theft, waste and fraud.

QUALITY ASSURANCE AND QUALITY CONTROL

Quality Assurance and Quality Control are essential to the Agency's efficiency. As such, projects are monitored prior to, during and after implementation to ensure that "value for money" and "right fit" are attained. The Quality Assurance Directorate (DQA) is mandated to conduct project audits to ensure that appropriate standards are maintained, thus cutting down on rework costs or earlier than programmed interventions.

During the review period, the DQA monitored 405 roads and conducted three (3) full project audits, including the Dry River Bridge in Kingston. Ten (10) project surveillance audits were also conducted during the year. With two (2) surveillance audits equating to one (1) project audit, the cumulative annual performance is 29 project audits completed relative to our target of 16 project audits completed, exceeding our target by 81.25%. On average, the audits revealed that while there is still room for improvement our works projects were generally satisfactory executed.

Take-Over Certificates (TOCs) are examined, along with project site reviews, to ensure that completed projects were implemented within the established standards. During the year, our Quality Assurance Directorate (DQA) processed 48 TOCs within the seven (7) working days minimum performance standard. As it relates to TOCs for substantially completed contracts/projects, the DQA participated in, and prepared reports for 24 TOCs during the review period.

Table 11: Key Quality Assurance Performance Indicators

PROGRAMMES	REGIONS				
	KMR	CENTRAL	NORTH-EASTERN	WESTERN	TOTAL
JAMAICA DEVELOPMENT INFRASTRUCTURE PROGRAMME					
JDIP (Islandwide Patching)	10	11	16	23	60
JDIP (Road Rehabilitation)	19	15	12	16	62
JDIP (Critical Retaining Wall)	7		1		8
JDIP (Bridge Works)	4		2		6
Emergency Flood Damage Works	17	18	36	16	87
Flood Rains 2012			3		3
Capital A – Budget FISCAL YEAR 2011-12	15			2	17

To ensure a high quality national road infrastructure, our Materials Testing and Evaluation Lab (MTEL), conducts routine analysis of soils, asphaltic components and concrete mixtures used in the construction process. These tests are conducted in accordance with British Standards and the AASH-TO (American Association of State Highway and Transportation Officials) specifications. For fiscal 2011-12, over one hundred and sixty (160) test reports were issued with the average turnaround time being 19 days. These tests included, Gradation, Atterberg Limits, Nuclear Density, Proctor, Compressive Strength, Bitumen Extraction and Stability Flow.

To ensure the highest quality standards and effective quality controls, we continually undertake reviews of our business processes, with the aim to identifying and addressing any weaknesses or inefficiencies. While no business process improvements were targeted for fiscal year 2011-12, a review of MTEL's Quality Assurance Procedures Manual was completed and the manual reissued during the year.

POST PROJECT EVALUATIONS

One important approach in which the Agency seeks to improve its efficiency is by conducting impartial reviews of select major projects upon their completion. The overall aim of the Post Project Evaluation (PPE) exercise is not to assign blame, but rather to review the completed project, and capture and document any lessons on what went well and what could be done better. Moreover, the PPE is intended to promote collaboration and agreement on what and why there were advantages and disadvantages to doing things a certain way, and to reveal opportunities for increasing the project's yield of benefits and make recommendations on actions required for these to be achieved.

For fiscal year 2011-12, we targeted the completion of one (1) post project evaluation for a contract over J\$15 million. Accordingly, the Christiana Development Road Project was selected. Areas highlighted for improvement in the PPE Report include: (1) the need to improve design (mainly the need for greater sub-soil investigation; alignment of design requirements with Bill of Quantities; and adherence to international best practices); and (2) the need to complete (or bring to an advanced stage) land acquisition activities prior to project commencement.

INTERNAL CONTROL SYSTEMS

As an Executive Agency, the NWA is charged with ensuring that its financial systems are operated with the utmost integrity, and transparency; and that its internal control systems adhere to the applicable laws and regulations, and GoJ's policy guidelines and instructions. The Agency's internal control system's mandate is articulated in the Executive Agencies Act (S.14), the Financial Administration and Audit Act (S.34), the Public Bodies Management and Accountability Act (S.8,9,10,11,13, and 14), and the Financial Instructions to Executive Agencies (S.14). The organization's internal control system is administered by the Internal Audit Department, which measures compliance with established policies and procedures and is supervised by an independent Audit Commission empanelled pursuant to the Financial Administration and Audit Act (FAAA), Financial Instructions to Executive Agencies (FIEA), and the Public Bodies Management and Accountability Act (PBMAA).

During the review period, the Internal Audit Department completed one (1) of two (2) planned audits and two (2) unscheduled audits. Four (4) other audits were in progress at the end of the Q4 fiscal year 2011/12. The fiscal year 2011-12 year-to-date performance is fifteen (15) of sixteen (16) audits completed 12 of 16 planned audits, and three (3) unscheduled audits. Major audits completed to date include the Cassia Park and Queensborough Bridge Projects, the Christiana Development Road Project, and the Palisadoes Shoreline Protection Works Project. Four (4) audits are expected to be carried-over into FY 2012/13 due to vacancies in the audit staff complement, and the inclusion of unplanned work activities associated with natural disasters.

Table 12: Performance Summary

AUDITS	TIMING	NO. OF AUDITS	PROGRESS
Financial Audits			
Payroll Operations	Biannual	2	Completed
Cash Management	Annual	1	Completed
Bank Reconciliations	Annual	1	Completed
Project Audits			
Palisadoes Shoreline	Annual	1	Completed
Rio Grande Bridge Construction	Annual	1	Two site visits done. Audit is to be carried forward to FY 2013/14
Christiana Development Road	Annual	1	Completed
Cassia Park & Queensborough Bridges	Annual	1	Completed
Fern Gully	Annual		Audit to be carried forward to FY 2012-13
IT Review			
Network Security	Annual	1	Audit to be carried forward to FY 2012-13
Operational Audits			
Human Resource Management	Annual	1	Audit to be carried forward to FY 2012-13
Fixed Asset Inventory	Annual	1	Completed
Travelling and Subsistence Claims	Annual	1	Completed
Compliance Reviews			
Quarterly Contract Awards (QCA)	Annual	1	Completed
Performance Incentive Payments	Biannual	2	Completed
Unscheduled Audits			
Analysis of JDIP Staff Costs		1	Completed
Verification of Storm Nicole works		1	Completed
Audit of Annual Performance Evaluation for all staff		1	Completed

REGULATORY REPORTS AND LEGISLATIVE COMPLIANCE

We are required under various statutes (including the PBMAA, FAAA, FIEA, and EAA) to periodically report on our activities and performance. During the review period, the following regulatory compliance reports were submitted to the relevant authorities:

- Quarterly Internal Audit Report
- Quarterly Contract Audit Report
- Monthly Un-audited Financial Statements
- Monthly Procurement Report
- Monthly Recurrent Financial Expenditure Reports
- Monthly Capital A and Capital B Statements of Expenditure Reports
- Monthly Budgeted Cash Flow Report
- Quarterly Performance Reports
- 3-year Strategic Business Plan
- 1-year Operational Plan

Additionally, the Agency is required to have in place an Advisory Board and Audit Commission as part of its Corporate Governance Accountability Framework. During the review period, the Agency's Internal Audit Committee was in place, in accordance with the Public Bodies Management and Accountability Act (S.8) and the Financial Instructions to Executive Agencies (S.14.1.1). Pursuant to the Executive Agencies Act (S.5), our Advisory Board, which advises the CEO in the strategic and business planning responsibilities of the Agency, also held quarterly meetings throughout the year.

TECHNICAL DESIGNS AND STUDIES

A cost-effective way of increasing organizational efficiency is getting the work right the first time. The Agency's work in this regard is led by the Technical Services Department (TSD), which plays an important role in ensuring that quality is maintained through project implementation for design-related efficiency and effectiveness. Independent internal designs are reviewed prior to approval, so as to ensure that alterations made during implementation do not result in extensive variation orders and time delays, as a result of design deficiencies.

Technical and engineering support is also provided for projects as required, which include carrying out topological surveys, hydraulic and geo-technical investigations. During the year, over 54 designs were addressed by the Agency. This brings the year-to-date performance to 120 designs completed for fiscal year 2011-12.

Through the IDB/GoJ TRIP Loan 2026, we will be undertaking two (2) Technical Studies: (1) the Southern Coastal Highway Corridor Technical Study, and (2) the Master Drainage Plan.

Southern Coastal Highway Corridor Technical Study

In keeping with the strategic development plan for the South Coast, engineering and environmental feasibility studies are targeted to improve road sections along this corridor. The area spans 200 km from Negril, Westmoreland to Port Antonio in Portland, and is divided into two (2) sections:

Section 1: 117 km, extending from Negril, Westmoreland to Mandeville, Manchester. This section connects Highway 2000 east of Mandeville. It is classified as an "A" class road, and serves as a rural arterial roadway. It connects Negril to Savannah-La-Mar, Westmoreland to Mandeville in Manchester.

Section 2: 139 km, extending from the eastern entrance to Kingston, at the Harbour View Roundabout, to Port Antonio, Portland. This section connects to the North Coast Highway Improvement Project (NCHIP) east of Port Antonio.

A contract was awarded to Stanley Consultant Inc. for US\$2.7 million (or J\$242.8 million) to undertake the study, which is estimated to be completed in the Q2 fiscal year 2013/14 (i.e. July 2013). Physical progress is projected to be 30%, which is consistent with the targeted performance of 30% for the fiscal year 2011/12. At the close of the year, J\$43.7 million was certified for payment. The study is expected to be completed in July 2013.

Master Drainage Plan

Jamaica remains susceptible to extreme weather conditions which can impact adversely on the Nation's road infrastructure. Accordingly, the Agency is targeting the creation of a Master Drainage Plan (MDP), that will incorporate a number of comprehensive drainage and flood control plans for specific flood zones across the island, as a major deliverable to enhance its flood control, mitigation and damage rehabilitation efforts.

A contract to undertake drafting of the MDP was awarded to Stanley Consultant Inc. in the first quarter of fiscal year 2011/12 in the amount of US\$700,000 (or J\$60 million). The target date of completion was June 2012. Physical progress is estimated at 97%, with the resubmission of final drawing being awaited from the consultants. Certified payment at the end of the year fiscal year 2011/12 is J\$33.9 million.

EMBRACING NEW TECHNOLOGIES AND TECHNIQUES (GIS)

In recent years, Geographic Information System (GIS) has emerged as a powerful tool to capture, store, manipulate, analyze, manage, and present all types of geographical data. Consequently, this tool has an explosive potential to enhance the Agency's work by providing critical information across a wide array of core business processes. During the review period, the Agency's GIS Department continued to contribute to several of its mission-critical areas by creating and/or updating databases for roadways, settlements, waterways, gullies, bridges and their alternate routes, flood prone areas and areas of frequent landslips islandwide. This data is then used to inform project planning and decision-making.

For the year, the GIS Department prepared 62 maps and digital road information products for both internal and external customers, with a notational value of J\$1.7 million. All work assignments were completed within the standard processing time of five (5) working days for external clients and ten (10) working days for internal clients.

Table 13: Total GIS Requests by Directorate

DIRECTORATE / UNIT	TYPE OF DATA SUPPLIED	ACTUAL 2010-11	REQUESTS 2011-12	NOTATIONAL VALUE OF WORKS
Technical Services	Identification of critical river training sets.	13	9	J\$306,000
	Identification of soil and geology types in and around project area and proposed developments.			
Planning and Research	Mapping of road sections under various projects.	13	23	J\$456,000
	Location of traffic counts, distance measurements and existing/alternative routes to and from various locations.			
Development Control and Physical Planning	Various locations maps for development control and planning.	-	-	J\$108,000
	Locations of major drains and gullies affecting sub-divisions and new development locations.			
Traffic Management	Proposed traffic flow and traffic management strategies.	12	16	J\$360,000
Regional Implementation and Special Projects	Mapping of roads under various traffic management projects	9	6	J\$246,000
Major Projects	Mapping of roads under various projects	7	8	J\$228,000
Information Technology		-	-	-
	Total	54	62	J\$1,704,000

GIS Database and Application Development

A major goal of the Agency's GIS effort is to better serve the geospatial information needs of its external and internal clients. Additionally, the Agency seeks to create efficient GIS Applications that supports its infrastructure management systems that informs its forward-planning and decision-making processes. To accomplish this objective, complete and well maintained GIS datasets are required. This is accomplished through ongoing development of GIS Application products, and routine application and database updates.

During fiscal year 2011-12, our GIS unit substantially completed work on the Land Acquisition Management System (LAMS) (95%). Official use of the LAMS is scheduled to commence in July 2012, after a period of beta testing. Additional functionality is expected to be added as the application evolves. The LAMS is expected to provide significant benefits to the NWA and its clients, including:

1. Streamlined access to parcel-related information.
2. Reduced time locating parcel-related information.
3. Provision of a GIS-based solution to identify properties and perform preliminary parcel take queries / calculations.
4. Better track parcel information.
5. Quicker capture and record of new parcels.
6. Automation of manual functions, such as, automatic calculations and Map Output.
7. Easier access to parcel maps over the web or in customized applications.
8. Greater utility via spatial queries, overlay functions and GIS graphics.

Application Development Updates

During fiscal year 2011-12, our GIS unit continued work on three (3) application updates, namely, (1) the GIS Web Application, (2) the GIS Pavement Management Maintenance System, and (3) the Bridge of Jamaica MS Access Database. Progress to date is as follows.

Table 14: Application Development Updates

APPLICATION	PURPOSE	PROGRESS
GIS Web Application	Management tool, to assist in islandwide Project Mapping.	95 % Complete (subsumed under GIS-PMMS). Outstanding works relate primarily to the confirmation of NWC, JPS and RWS Data
GIS Pavement Management Maintenance System (formerly GIS-Road Network Maintenance System)	Management tool, to increase the efficiency of the Agency's road rehabilitation works.	65% Complete. Outstanding works relate primarily to data gathering activities vis-à-vis contractor performance and appraisal data (30% complete); pavement history and strength data (35% complete); and specialized road surveys (20% complete)
Bridge of Jamaica MS Access Database (target changed to GIS Multiuser Geodatabase)	Management tool, to assist in islandwide Bridge Mapping and prioritization of the Agency's bridge/structure rehabilitation, construction and maintenance works.	85% Complete. Currently 13 parishes have over 90% of their bridges mapped. The TSD is undertaken to GPS map the remainder of bridges island-wide by March 2013. This exercise is slated for completion end of Q1 fiscal 2013/14.

Database Updates

As part of our ongoing efforts to ensure the reliability and availability of the nation's roadways, we were engaged in active planning of Road Condition Survey Feature Inventory. The survey is to be conducted in fiscal year 2012-13. GIS has been tasked to assist with spatial mapping of all road features (drains, culverts, signs, inlets, steel guard rails, and masonry retaining walls) recorded during the conduct of the road condition survey exercise. From this data, we plan to create a multi-user Geodatabase for main roads in St. Andrew, St. Catherine, Manchester, St. Thomas, Clarendon, St Elizabeth, Westmoreland, Hanover, Trelawny, St. Ann and Portland.

AGENCY FEES

An important aspect in maintaining our efficiency is to meticulously manage our resources. In particular, the FIEA (S7.2.1) direct that Executive Agencies should seek to recover their full costs, where practical and appropriate, from the public and other government bodies, including the Portfolio Ministry, for the services and products it provides.

Accordingly, we endeavor to recover our costs via project management fees, as well as fees from other services rendered, such as:

- Development control application and technical services.
- Building refurbishing services for other Government Agencies.
- Inspection of repairs, Bills of Quantities, etc., to industry and other Government departments.
- Equipment rental for Private Entities and In-house Projects.

Total income at the close of fiscal year 2011-12 amounted to J\$1,165million, which was 64% higher Year- over-Year, and 17% greater than our appropriations in aid target of J\$999 million set by the Finance Ministry. The increase in our earnings was mainly attributed to a 161 percent growth in our management fees owing to an accelerated work programme related to the JDIP, and other capital works implemented during the review period. Management fees continued to account for the bulk (96%) of our annual earnings, and were up significantly from 60% in fiscal year 2010-11.

COST SAVING STRATEGIES

Utility, Fuel Usage and Expenditure

In order to maximize investment in our core business areas, we are constantly exploring new ways to improve the efficiency of our plant and lower our operating costs. Specifically, we targeted to achieve a 10% reduction in both utility (electricity, telephone and water) and fuel consumption during fiscal year 2011-12 relative to the previous financial year. The performance at the end of the year revealed that electricity and telephone usages declined by 8% and 20% respectively, while water consumption increased by 2%. Interestingly, it must be noted that while our water consumption increased during the review period, expenditure on this utility actual declined by some J\$1.31 million (or 35.2%) compared to the previous fiscal year 2010-11.

In addition, to optimizing its utility and fuel consumption, we also keenly monitor our actual expenditures on these critical operational inputs. During the year, we expended approximately J\$15.6 million on utilities and J\$3.5 million on fuel. Electricity expenses, which amounted to J\$10.4 million, continue to account for the lion share (66.6%) of our utility spend for the year, followed distantly by telephone (J\$2.6m or 16.45%) and water (J\$2.4m or 15.5%). Compared to fiscal year 2010-12, our expenditure on utilities declined by 8.5% during the year.

During the review period, the Agency spent J\$3,456,969.96 on fuel for 58,919.14 litres diesel fuel for an average of 85 units, and 5,294.20 litres gasoline for an average of 6 vehicles. This is relative to the J\$6,025,491.5 for 46,426.87 litres of diesel for an average of 89 units, and 3,254.53 litres gasoline for an average of 6 units for the corresponding period last year. The increase in fuel usage was attributed primarily to the operation of the Spray Patching Programme, and other in-house projects. Combined, our total spend on utilities and fuel declined by 3.2% in comparison to the last fiscal year.

INSTITUTIONAL STRENGTHENING

During the year, we continued our efforts to strengthen our institutional capacity towards increasing operational efficiency. We held a Corporate Retreat and achieved 92% Information Technology Resource Availability. We also realized improvements in two (2) select IT business processes.

Table 15: Institutional Strengthening

PROJECT/ACTIVITY	PERFORMANCE TARGET	2011-12 PERFORMANCE
IT Resource Availability 1. Carry out computer maintenance programme 2. Upgrade all compatible workstations to office 2010	92%	Overall 100% achievement
Improved Business processes by greater use of enabling technologies: Implement five (5) software packages to support business processes by March 31, 2013 <ul style="list-style-type: none"> • Asset Inventory Management • Customer Relationship Management System • Electronic Content Management system 	2 IT business processes improved by end of fiscal year 2011/12	Projects deferred due to a lack of funding.
Electrical power Backup Systems for parish offices <ul style="list-style-type: none"> • Replace 40 UPS at Parish offices • Install 30 voltage regulators for PBXs and large MFPs 	Work plan implemented by end of fiscal year 2011/12	60% achievement to date.
Information Security: <ul style="list-style-type: none"> • Review and update IT Policies and Procedures • Reorganize files on server using SharePoint • Develop Business continuity plan 		
Expansion and upgrade of Network and Telecommunications Capabilities: <ol style="list-style-type: none"> 1. Replace local area network at 3 locations to support VoIP projects 2. Implement DNS/File Storage Servers at remote office (3) locations 3. Setup WIMAX services at Eight (8) Parish Offices 4. Replace existing DSL service with Business DSL or Metronet (Regional Offices) 5. Implement Phase 2 of Enterprise IP PBX 6. Establish Network Connectivity - Child Care Centre 7. Establish high speed internet at HQ 8. Replace copper trunk lines with SIP lines 	Work plan implemented by end of fiscal year 2011/12	100% achievement

Connecting our Cities, Stimulating National Growth

Studies have demonstrated a tangible linkage between direct infrastructure spending and national development. We believe that an efficient and effective main road network is indispensable to Jamaica's economic development and growth. By increasing access to our towns and communities, we reduce transportation costs associated with the movement of people, goods and services. Newer, more modern roads also make the transport of freight easier. Industries essential to national growth, such as mining, manufacturing, trade, tourism and agriculture, all rely upon a safe, quality and reliable transportation system. A lack of adequate infrastructure to facilitate the movement of people and goods, diminishes both economic and social benefits.

Notwithstanding our road rehabilitation and flood mitigation initiatives, there are some road sections that require extensive intervention strategies. These methodologies may be referred to as Road Reconstruction. As well, we conduct development control and physical planning activities to ensure the orderly development of our towns and communities.

During the year, we were actively engaged in three (3) development projects: (1) The Christiana Development Road Project, (2) The Kuwait Phase 2 Rehabilitation Programme (Kuwait Fund/GoJ), and (3) The Organization of the Petroleum Exporting Countries (OPEC) Phase 2 Rehabilitation Programme (OFID/GoJ).

CHRISTIANA DEVELOPMENT ROAD PROJECT, MANCHESTER (JDIP)

Typical of towns lying on the main highway network, Christiana experiences congestion due to poor infrastructure development complemented with high commercial activities at the town centre. The influx of shoppers and sellers results in significant traffic congestion in the town, especially during market days. In order to alleviate the present congestion problems, and guide future development of the town in a planned manner, the Agency proposes the construction of a new road on the outskirts of the western section of the town.

The Christiana Development Road is expected to ease the traffic congestion that currently exists in the town and help in the overall development, of Christiana by facilitating access to new land outside of the town centre. The bypass corridor will take traffic that currently uses the main road through the town and facilitate enhanced linkages into the parish of Trelawny from Manchester, and improvements in the cross country travel time for users not intending to stop in Christiana. The improvements entail the construction of just over 1 km of two (2) lane urban carriageway with 1.8 m wide hard shoulders on both sides. The requisite drainage infrastructure will be provided as well as traffic signals to facilitate the safe and efficient movements within the town centre. The proposed road has wearing surface of asphaltic concrete and will also include underpass(es) and culverts. This is a J\$878 million contract with a construction period of 12 months.

At the end of fiscal year 2011-12, the Christiana Development Road project was substantially completed and is currently in the "taking over" process. Project cost is reported to be US\$10.34 million, of which the full amount has been certified for payment.

KUWAIT PHASE 2 REHABILITATION PROGRAMME

The funding amount is US\$17 million through the Kuwaiti Fund for Arabic Economic Development (KFAED) and the Government of Jamaica. The project cost however, is estimated at US\$36 million (inclusive of land acquisition and utility relocation activities). Additional, funding is to be acquired for this project. This project objective is to realign and rehabilitate failed road sections; improve drainage and construct protective works for 47 km of rural roadway:

- Toms River to Agualta Vale, St. Mary – 18 km
- Ferris Cross to Mackfield, Westmoreland – 13.6 km
- Alexandria to Brown's Town, St. Ann – 15.4 km

The road section currently being addressed is the 18 km of rural roadway from Toms River to Agualta Vale, St. Mary. The Engineering designs were completed by DIWI Consult International in 2009. This aspect of the project was financed through the Kuwaiti Phase 1 project. The project's cumulative expenditure as it relates to those activities was J\$60 million at the end of financial year 2010/11. Land Surveying work which started during the 2009-10 fiscal year was carried forward into the 2011-12 period. This work is being undertaken through contracts valued at J\$15.7 million. The objective of the land surveying services is to facilitate legal access to the 377 lots of land that will be affected by the project. This activity is undertaken prior to the commencement of civil works. Divided into six (6) packages, this component of the project is being financed by the GOJ. At the end of year, land surveying activities are estimated at 92% completion. We are currently awaiting the return of pre-checked plans from the National Land Agency (NLA). It is anticipated that land acquisition activities will be concluded in the next financial year.

OPEC PHASE 2 REHABILITATION PROGRAMME (LOAN #1052P)

A collaborative effort between the GoJ and the OPEC Fund for International Development (OFID), this project is to rehabilitate approximately 31 km of main road. The scope of works include realignment, rehabilitation of failed road sections and the improvement of drainage and protective works at an estimated cost of US\$27.7 million. The areas to be addressed are:

- May Pen to Sour Sop Turn, Clarendon (10.2 km)
- Sour Sop Turn to Danks, Clarendon (11.7 km)
- Danks to Trout Hall, Clarendon (11.2 km)

The engineering designs were substantially completed by DIWI Consultants International at the end of fiscal year 2010/11. This aspect of the project was financed through the Kuwaiti Phase 1 project. No payments were certified for the review period. The cumulative expenditure as it relates to these activities was J\$22 million at the end of the year. Contracts valuing J\$14 million were awarded for the Land Surveying Services during the 2009-10 financial year. The objective of the land surveying services was to facilitate legal access to approximately 700 parcels of land that will be affected by this project. This activity is undertaken prior to the commencement of civil works. Divided into two (2) packages, this component is being funded by the GOJ.

At the end of fiscal year 2011-12, land surveying activities are estimated to be 80% complete, with J\$12 million certified for payment. The Agency is currently awaiting the return of pre-checked plans from the NLA. It is anticipated that land acquisition activities will be concluded in the next fiscal year. With respect to the procurement of a contractor and project consultant, this activity remains on hold pending discussions with the OFID.

PROJECT PROFILES

Project profiles involve fundamental description, cost estimates and planning analysis of a project for subsequent implementation. It is developed with data existing within the Agency, and its control environment, and is used as feedback to the policy makers, as well as the basis to commit to further study. The Agency targeted the completion of one (1) project profile for the 2011/12 fiscal year period. During the review period, the Agency began preparatory work on the Major Development Infrastructure Project (MDIP). The MDIP, a follow-on to the JDIP, is a proposed US\$350 million funding facility from the Government of China through the China Export-Import Bank that will also focus on upgrading additional key arterial, secondary and tertiary roads along the network.

DEVELOPMENT CONTROL AND PHYSICAL PLANNING

We remain committed to promoting sustainable development and growth for the Jamaican populace via the services provided by the Development Control and Physical Planning Department. This involves the processing of subdivision and development proposals, restrictive covenants and advertisement applications, and conducting site inspections. These activities are carried out in accordance with a number of legislations namely the: 1. Main Roads Act; 2. Town and Country Planning Act; 3. Local Improvement Act; 4. Advertisement Regulation; and 5. Road Protection Act and may be conducted jointly with representatives of other agencies.

For the year fiscal year 2011-12, we received 316 new applications of which 287 applications were processed and dispatched within the minimum performance standard of 21 days. Fourteen (14) applications were circulated for internal processing. During the year, a total of 1,165 applications were received, of this number 1,066 were processed as required. This performance result represents a 91.5% clearance rate, well above our minimum performance target of 70%. Notwithstanding, we maintain a backlog of 1,001 applications, 98.5% of which are awaiting payment of administrative cost, and the information requested from clients, as at the close of the year. Strategies to clear this backlog are being examined and will be implemented in fiscal year 2012-13.

Case Study:

WASHINGTON BOULEVARD ROAD IMPROVEMENT PROJECT

Realizing a nine year dream

The Washington Boulevard Road Improvement (Fifth Road) Project, completed in October 2011, provided well need capacity to better handle heavy vehicular traffic traversing the corridor. This has meant a substantial reduction in travel time and reduced transport costs for the motoring public. As part of our commitment to keep all road users safe, road improvements to improve road safety along the corridor were identified and addressed in a fulsome manner.

During fiscal year 2011-12, we completed the highly anticipated US\$23.39 million (or J\$1.7 billion) Washington Boulevard Road Improvement Project, which was officially opened on the 12th October 2011. The scope of works comprised the widening of 2.75 km of the existing two lanes to six lanes along Washington Boulevard and Dunrobin Avenue between Molynes Road Intersection and Constant Spring Road Intersection to improve traffic flow. Other major deliverables of the project included: reconstruction of the existing pavement; construction of boundary walls along the new road alignment; putting in sidewalks, kerbs, drains, box culverts and retaining walls; installation of drainage systems; construction of three new major bridges (an overpass structure at Red Hills Road, and two structures spanning Rochester Gully and Merrivale Gully); extension of two existing minor bridge structures; the installation of traffic signal systems at eight intersections; the installation of 3 km of 600mm diameter water transmission line, relocation of utility installations; and the procurement of Technical Assistance to establish a Vehicle Weight Enforcement Programme.

The project was implemented by contractor Surrey Paving and Aggregate Company Limited and funded by means of US\$14.777 million loan financing provided by the Caribbean Development Bank, and the Government of Jamaica counterpart support of US\$8.613M. The project which commenced in January 2010 was originally scheduled to be completed in May 2011 but was granted a 160 days extension of time due to additional utility relocation works, change orders and adjustments in the scope of works, such as: the inclusion of the rehabilitation of Molynes Road, Bronstorpe Square, Dukharan Avenue extension and the Road to Dunrobin Primary School. The project was substantially completed in October 2011. Some 133 individuals 110 males, 23 females were employed to the project.



It is now officially open! State Minister in the Ministry of Transport and Works, Hon. Othneil Lawrence (right) cuts the ribbon to officially declare open, the 2.75 kilometers stretch from the intersection of Molynes Road and Washington Boulevard to the Dunrobin Avenue/Constant Spring Road intersection. The road has been rehabilitated through the joint effort of the Jamaican government and the Caribbean Development Bank (CDB) at a cost of over one billion dollars. The new road boasts six lanes, including two for buses, Light Emitting Diode (LED) Street Lamps, signalized intersections with pedestrian features, sidewalks and two new bridges. Also in the photograph are Chief Executive Officer of the National Works Agency (NWA), Patrick Wong (left), CDB, Project Coordinator, Mr. Daniel Best, Project Director for contracting firm, Surrey Paving and Aggregates Limited, Michael Archer and Director of Technical Services at the NWA, Roger Smith.

Ensuring Sustainable Environmental Stewardship

We are very conscious of the fact that even “normal” road works can have a negative impact on the environment. Accordingly, the Agency has a solemn duty to ensure that its projects pose no significant adverse effect on the environment and the Jamaican people on whose behalf these works are performed. Consequently, the Agency undertakes continuous environmental monitoring of all its projects consistent with its Environmental Protection Plan and Safety Procedures, to curtail its ecological footprint and mitigate environmental degradation attributable to its work activities.

ENVIRONMENTAL MONITORING

As a necessary first step in its environmental stewardship, we undertake Environmental Impact Assessments (EIAs) to secure the requisite environmental permits and licenses prior to the implementation of its projects. For example, environmental approval was sought and subsequently granted by the National Environment and Planning Agency (NEPA) for several of major projects being undertaken by the Agency in fiscal year 2011/12, including: (1) Dry River Protection Works; (2) Yallahs River Training; (3) Rio Grande Bridge Construction; (4) Christiana Development Road Construction; (5) Fern Gully Drainage and Road Improvement; and (6) the Westmoreland Bridge Construction. Nevertheless, we apply the conditions and requirements of its internal Environmental Policy on all its projects, especially those that do not require the granting of an environmental permit for their execution.

Our environmental monitoring framework recognizes three (3) levels of monitoring. At the first level, environmental monitoring is expected to be executed by the contractor performing the actual work. They are required to implement the measures outlined in their environmental plan as stipulated in their contracts with us. At the second level monitoring is done by our Technical Services Department for compliance to the conditions of our Environment Protection Procedures and the environmental permit issued by the NEPA. The final level recognizes externally based monitoring by the NEPA on those project sites that have been given an environmental permit. We also work to address environmental concerns raised by civic and environmental advocacy groups in the execution of these projects.

During the year, we conducted ongoing monitoring to guarantee that established environmental standards were maintained. Consistent with prior reporting, archaeology and cultural heritage, soil contamination, impact on flora and fauna, air pollution (dust), noise nuisance, and site safety remained key areas monitored. For fiscal year 2011-12, our environmental monitoring reports identified no unearthed sites of archeological significance. As well, no material environmental violations were cited by the regulatory authorities. Further, no substantial noise pollution, or material contamination was identified at any of the sites inspected. Air quality was also adequately maintained via wetting operations and detour set up at the active sites; while intrusion on existing vegetation and/or wildlife was minimized. In compliance with our Environmental Permit, we undertook mitigation works to restore the mangrove sites adversely impacted by our road construction activities along the Palisadoes strip.

Areas identified for improvement in our environmental stewardship that we are addressing include:

- Appropriate waste management practices
- Better storage of work material on site
- Better traffic management
- Improved dust control
- Frequent update of Environmental Monitoring, Safety and Emergency Plans

Environmental Permit Applications

In addition to our own environmental and safety monitoring activities, we also process Environmental Permit Applications sent to us by the Local Planning Authorities. This activity ensures that development projects implemented are done within established environmental standards and regulations. During the year, 73 environmental permits were received, of which 39 (or 53.4%) were processed within the required minimum performance standard of 21 calendar days. The other 34 applications were held pending additional client information or payment of administrative fees.

Perspectives

We believe in maintaining effective communication with our clients, stakeholders and partners. Consequently, we remain committed to establishing a responsive organization by introducing suitable customer feedback mechanisms to identify road user priority requirements. Our work in this regard is led by the Communication and Customer Services Department (CCSD).

PUBLIC AWARENESS AND CUSTOMER SATISFACTION ENHANCED

One of our key obligations is to provide road users with meaningful and time-sensitive information about our activities that may impact their communities, lives and commute. This includes notifications such as, temporary road closures, traffic changes, and general updates on road works.

During the year, we conducted 94 “On Our Roads Broadcasts” and published 94 news releases. As in other years, our radio broadcast continues to be an extremely popular channel for disseminating information on our current and planned activities. The public is also able to square off directly with us to have their specific concerns heard. In addition to our media campaign, we also organize/attend Town/Community Meetings, conduct tours and road openings to both edify and sensitize the public as to the work projects and expected social benefits. Some of the locations toured during the review period include, the Palisadoes Shoreline Project; the Cassia Park and Queensborough Bridges, various River Training Works, and JDIP project sites across the island. We participated in and/or organized 410 visits/tours and 134 Town/Community Meetings for the year. These included regular attendance meetings at various Parish Infrastructure Development and Maintenance meetings, Parish Disaster meetings, and Community meetings.

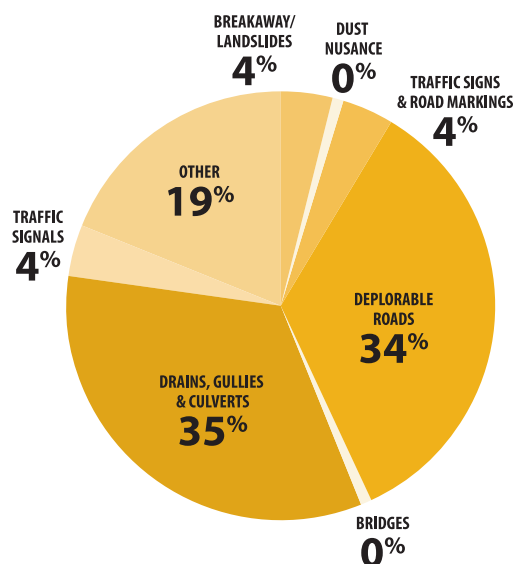


Figure 1: Customer Feedback

Customer Feedback

In the interest of including customers in our decision-making process, we actively monitor varied feedback, in particular, complaints we receive from the public through our Corporate and Regional Offices, and electronic channels. During the year, we received 527 complaints of which 74 (or 14%) were resolved.

The majority of complaints (34.9%) received in fiscal year 2011-12 were in relation to drains, gullies and culverts, followed closely by deplorable roads (33.8%). Most complaints (41.9%) were received in the Kingston Metropolitan Region (Kingston, St. Andrew, and St. Catherine). Of the 29 complaints received from this region 13 were related to drains,



gullies and culverts, 10 designated as other, 3 related to deplorable roads and 3 related to breakaway/ landslide. The low response rate is attributed primarily to the nature of programming customer complaints into the upcoming work flow of the Agency, and the availability of funds to address the complaint. Consequently, customer complaints may not be immediately addressed as soon as they were received. Notwithstanding, we make every effort to acknowledge, and respond to customer complaints in a timely manner, especially in emergency and public safety situations.

CUSTOMER SATISFACTION SURVEY

Executive Agencies are mandated to promote and maintain Customer Service standards. In this vein, we conduct annual Customer Satisfaction Surveys. This technique generates feedback on “what our customers think of us”. At the end of the year, our 2011 Customer Perception Survey was compiled, and the findings presented to our Executive Management Team. Among other findings, the Survey did note a non-negligible uptick in the percentage of travellers that are satisfied with the state of our road network. This is attributed to works being implemented under JDIP that are being felt on the ground. Some 41% believe the roads are congested, while 24% feel unsafe traversing our roads. However, 40% have noted an improvement in our activities to arrest bad road conditions. Like previous surveys, the survey found strong support (53%) for our response in emergency situations. This may suggest a greater appreciation for our efforts in one-on-one interactions. However, if left unchecked, sustained negative public perception can threaten the mission and viability of the Agency. As well, public perception of road transport is likely to be more volatile in the future, driven by rising fuel and transportation costs.

OUR PEOPLE



TAKING CARE OF OUR PEOPLE

We believe that our people are our strength. We continue to rely on the technical expertise and skills of our workforce to drive innovation and deliver sterling project management and service delivery. A critical component of human capital development is the management of human capital risk. Mitigating this risk involves making our people feel valued, and providing them with the tools and training necessary to enable them to complete their duties in an efficient and effective manner. Our work towards attaining organizational excellence is grounded in three (3) central programmes, (1) Performance Management and Evaluation; (2) Training and Development Opportunities, and (3) Performance Recognition and Reward. The ultimate aim of these programmes being to enhance staff morale and realize outstanding performance results at the organizational level.

Industrial Relations

For 2011, we continued to enjoy a stable industrial climate, which we facilitate through ongoing support for various forums and consultations to foster collegiate work environment. There were 11 separations from the organization – 9 resignations and 2 retirements. Five (5) employees were also promoted. No material disciplinary issues were identified to be addressed. Our staff compliment remained fairly stable, averaging 589 total employees (471 permanent and 119 temporary) over the year.

Performance Management and Evaluation

During the year, the Human Resource Management and Administration Directorate (DHRMA) continued to administer the Agency's performance management system. Performance evaluation reports for fiscal year 2011-12 were completed and submitted to the Internal Audit Department for verification.

People Development

We believe that a fundamental component in achieving our success is to recruit the right people for the right job at the right time, and equipping them with the right tools to get the job done right the first time. This management approach is manifested, in part, through our commitment to ongoing learning and personal development. Throughout fiscal year 2011-12, investment in our team members continued through various seminars, conferences, workshops and training courses delivered both in-house and externally. During fiscal year 2011-12, we have expended some 3,774 man-hours on the delivery of training solutions in a variety of mission-relevant areas. This exceeded our previous year's result of 2,784 training man-hours by 28.8%. Some of the training and development solutions provided include:

- HRMIS training
- Road Maintenance Priorities & Procedures
- IRF Executive Workshop on Traffic Congestion Management
- IRF Seminar – Safer Road Design workshop: Road Infrastructure Safety Management in FI.
- Commonwealth Training - International Disaster Management Programme in Singapore
- CPR, First Aid & Safety Procedures
- HIV/AIDS Peer Education
- Use of Self- Propelled Thermoplastic Road Marking Machine
- Use of Emergency Operations Application
- Fleet Management Seminar
- Inventory Management Techniques
- Customer Service Training
- JIE Conference "Developing Sustainable Infrastructure
- Records Classification training
- 2nd Annual IRF Seminar – "Performance Based Contracts and Evaluation Asset Condition" – Canada

- IRF 3rd Executive Seminar, “Preserving our Highway Infrastructure Assets” -Orlando Florida
- MOU Skills based training

Our growth and transformation agenda requires that our employees are able to adapt and excel in rapidly evolving business conditions. To enrich our employees’ sense of personal achievement and offer other opportunities to build sales and service skills, we encouraged and facilitated certification to several related courses contained in our open learning catalogue through paid study leave, day releases and time off for study, which were in compliance with GOJ regulations. Some 21 employees benefited from such offers while J\$1,835,594 was approved for the reimbursement of tuition to staff for the year. One of our long-term goals is to establish an online Learning Portal to further entrench the philosophy within the enterprise and build organizational capability.

Innovation

During the year, we completed the installation, data entry, and testing of our new Human Resource Information Management System (HRMIS). The system was procured via development assistance from the Inter-American Development Bank (IDB) and China Exim Bank at a cost of J\$12.9 million. The HRMIS is expected to build the overall capacity of the human resource management operations of the Agency and enable better strategic management of our human resources across projects; greater efficiency by automating various routine applications or requests; greater employee information awareness through access to a ‘Self Service Portal’, to access information on their employment and current work assignments. This represents a significant fulfilment of our Personnel and Industrial Relation Charter, which was also completed in fiscal year 2011-12. The system was implemented by Illuminat Jamaica Limited using the world class Oracle People Soft Platform. It is intended that over time, the Agency will add other products in the People Soft Application Suite to create a seamless Enterprise Management System.

Health, Safety and Wellness

Improving the management of health, safety and wellness continues to be a priority for the Agency. In 2011–12 we held our annual Health Fair which saw employees getting health screenings, including eye exams and blood pressure tests. We also held a special farmers market to promote healthy living through better nutrition. This was also in support of the GOJ wider “Eat Jamaican” campaign. We also held a number of health related fora, and updated our “In case of Emergency” contact data with the introduction of our new Human Resource Information System. As is our tradition, we continue to note the passing of past and present employees and their loved ones and foster a spirit of compassion in their time of bereavement.

During the year, we also held a number of Life Planning Seminars and HIV/AIDS Sensitization sessions to increase employee awareness of significant life issues. To assist with unexpected or prodigious financial burdens, we provided some J\$769,768.75 in loans to staff - \$368,300.00 for Emergency purposes and J\$401,468.75 to further educational pursuits.

CORPORATE GOVERNANCE



Effective Corporate Governance

We are committed to effective corporate governance, underpinned by principles of openness, integrity and accountability and which enhances goodwill among stakeholders which are considered to be customers, both internal and external; clients and other publics. In this regard, the Agency continuously strives for excellence and thereby seeks to maintain:

- Quality service and products;
- Value for money
- Fiscal prudence; flexibility;
- Creativity, innovation, timeliness
- Transparency; and
- Open communication

The Agency believes that corporate governance is vital to facilitating an advance towards excellence in its business and internal operations.

The NWA is therefore committed to maintaining and managing a system of internal control, established within the framework of the Executive Agency's Act of 2002. This system is executed by the Agency's Management Body and designed to provide reasonable assurance regarding the achievement of objectives, relating to: effectiveness and efficiency of operations; reliability of financial reporting; and compliance with applicable laws and regulations. The following are the media through which the Agency's system of governance is effected, and which are actively employed during the fiscal year 2011/2012:-

The Advisory Board

The NWA's Advisory Board continued over the year in review to represent the interest of the Government of Jamaica (GoJ) in order to promote and maintain prudent, effective and efficient planning, management and accountability of the Agency's business operations. This, in accordance with the Executive Agency's Act of 2002 and the Terms of Reference established by the Ministry of Transport and Works. The board is comprised of ten (10) members who provide advice to the Chief Executive Officer (CEO) in the strategic and business planning responsibilities of the Agency. During the fiscal year 2011/2012, Advisory Board meetings were held once per month, in keeping with the Ministry's Terms of Reference which stipulates that such meetings be held on a monthly basis.

Key Performance Indicators

The KPI system is to be used to measure the annual performance of the Agency against Targets agreed upon by the Ministry of Transport and Works. Performance below an eighty-five per cent (85%) is considered to be an unsatisfactory level, and against which the Agency's ability to make certain monetary negotiations may be seriously hampered.

The Key Performance indicators given to the Agency each year are apportioned as targets among each directorate and within that, each department and each individual, so that at every level of the Agency, performance may be monitored and measured for consistency with Agency's and Ministry's objectives. Ministry rewards are not accorded to the NWA for performance below 85%. Additionally, individuals' goods performance is generally rewarded in order to encourage sustained high performance. A ranking of 80%-100% is used to reward individuals' high-level performance.

Procurement Committee

Over the year in review, the Procurement Committee, an internal system, consisting of the NWA's Senior Management Body continued to monitor and assess applications for the award of contracts, in that the Committee:-

- a) Ensures compliance with relevant policies, guidelines and procedures;
- b) Conducts objective evaluation processes regarding quotations, tenders and request for proposals;
- c) Facilitates response to contractor enquires.
- d) Maintains proper record of the committee meetings, including records of the procurement;
- e) Ensures compliance with reporting obligations; and
- f) Reports to the Chief Executive officer, recommending the acceptance, or not of one or more quotations, tenders of request for proposals received.

Director's Standings Meetings

Director's Meetings represent an established medium by which the Agency, through its Chief Executive Officer, manages, directs and controls the operations of the Agency's directorates and departments. The progress and challenges of each department and of each directorate as a whole are brought to the attention of the CEO, through this forum. These meetings also facilitate open discussions on new ideas/innovations, plans, policies, procedures and activities. In this forum, directions are also passed from the CEO to the Senior Management Body.

Over the fiscal year 2011/2012, these meetings were held twice per month. Standing Members of the Agency's Director's Meetings over the period consisted of:

- The Chief Executive Officer;
- Director and Senior Director, Project Implementation& Special Projects (RISP);
- Director of Planning and Research;
- Director of Quality Assurance;
- Chief Internal Auditor;
- Manager of Technical Services;
- Director of Finance and Accounts;
- Director of Asset Management;
- Manager of Communication and Customer Services; and
- Director of Human Resource Management and Administration

Project Managers Standing Meetings

Over the period, the Deputy Chief executive Officer (Senior Director, RISP) met with all project managers once in every month. This provided another medium through which the Agency's activities relating to various projects being undertaken were managed and controlled. The progress of each project (physical and financial) would be reported to the Deputy CEO, and would then be brought to the attention of the CEO, for review and guidance.

Parish and Regional Managers' Meetings

During the year in review, this meeting was held once per month with the CEO and all Regional and Parish Managers. Through this forum the CEO was able to keep abreast of the activities, progress and challenges within each parish and within each of the Agency's four (4) administrative regions as a whole. This provided a medium through which the CEO was able to monitor and direct more intensively, the activities within every parish.

Quarterly External Reporting

Each quarter, the NWA, through the Corporate Planning component of its Planning and Research Directorate, makes presentations on the operations/activities, progress and challenges within the Agency, during the relevant quarter, to:-

- The Ministry of Transport and Works ;
- The Cabinet Office;
- The Planning institute of Jamaica(PIOJ);
- The Ministry of Finance and Planning.

These presentations continued over the year in review, to provide a further opportunity for the Ministry of Transport and works to more effectively monitor the performance of the National Works Agency.

Open Communication

The NWA ratified the Access to Information Act in June 2002. This Act governs the manner in which the Agency disseminates information to the its various customers/publics. Over the fiscal year 2011/2012, the Agency continued to be transparent and frank in communicating with its various publics.

Review of Internal System of Control

The effectiveness of the NWA's internal system of control was regularly reviewed during FY 2011-12, by the senior management body, for effectiveness.

Directors' Compensation

Position of Director	Fees (\$)	Motor Vehicle Upkeep/ Travelling or Value of Assignment of Motor Vehicle (\$)	Honoraria (\$)	All Other Compensation including Non-Cash Benefits as applicable (\$)	Total (\$)
Advisory Board Chairman – Dr. Parris Lyew-Ayee, Jnr.	96,000.00	N/A	N/A	N/A	96,000.00
Board Members					
Mr. Joel Williams	75,000.00	N/A	N/A	N/A	75,000.00
Mr. Anthony Walker	34,000.00	N/A	N/A	N/A	34,000.00
Mr. Ivan Stephenson	42,500.00	N/A	N/A	N/A	42,500.00
Mr. Ian McNally	17,000.00	N/A	N/A	N/A	17,000.00
Ms. Janine Dawkins	34,000.00	N/A	N/A	N/A	34,000.00
Mr. Alston Esmie	25,500.00	N/A	N/A	N/A	25,500.00
Mr. Mark Kerr Jarrett	17,000.00	42,428.40	N/A	N/A	59,428.00
Ms. Rolda Grey	17,000.00	N/A	N/A	N/A	17,000.00
Secretary					
Ms. Sandra Reid/ *Mrs. Annette Hinds	7,500.00 7,500.00	N/A	N/A	N/A	7,500.00 7,500.00
Grand Total					415,428.00

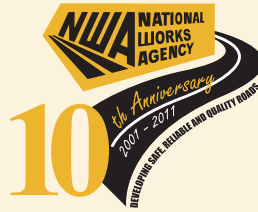
* Sandra Reid operated as the secretary until October 2011 when Annette Hinds replaced her.

Senior Executives' Compensation

Position of Senior Executive	Year @ March 2012	Salary (\$)	Gratuity or Performance Incentive (\$)	Travelling Allowance or Value of Assignment of Motor Vehicle (\$)	Pension or Other Retirement Benefits (\$)	Other Allowances (\$)	Non-Cash Benefits (\$)	Total (\$)
Patrick Wong Chief Executive Officer	2011/12	6,634,000.00		Fully Maintained				6,634,000.00
Earl Patterson Senior Director - Project Implementation	2011/12	6,131,950.65		Fully Maintained				6,131,950.65
Pauline Dunstan Director - Finance & Accounts	2011/12	4,282,530.00		796,500.00				5,079,030.00
Jennifer Henry Director - Human Resource Management & Administration	2011/12	4,282,530.00		796,500.00		320,190.00		5,399,220.00
Sharon Grindly Director - Corporate Services	2011/12	3,597,326.00		796,500.00		275,781		4,669,607.00
John Wright Director - Major Projects	2011/12	4,111,229.00		796,500.00				4,907,729.00
Orlene Rowe Director - Quality Assurance	2011/12	3,768,627.00		796,500.00				4,565,127.00
George Knight Director-Regional Implementation & Special Projects	2011/12	3,939,928.00		796,500.00				4,736,428.00
Patrick Rose Director-Planning & Research	2011/12	3,597,326.00		796,500.00				4,393,826.00
Roger Smith Director - Technical Services	2011/12	4,111,229.00		796,500.00				4,907,729.00
Dwight Wilson Project Director - JDIP/ Jamaica Development Infrastructure Project	2011/12	3,939,928.00		796,500.00				4,736,428.00
Stephen Shaw Manager Communication & Customer Services	2011/12	3,159,244.00		796,500.00		252,738.00		4,208,482.00
Maxine Creary Chief Internal Auditor	2011/12	2,527,395.00		796,500.00				3,323,895.00
Camaika Facey Manager Legal Services	2011/12	2,834,461.60		796,500.00		295,781.00		3,926,742.60
Grand Total		56,917,704.25	0.00	9,558,000.00	0.00	1,144,490.00	0.00	67,620,194.25

OUR FINANCIAL STATEMENTS





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Analysis of our Audited Financial Statement for the fiscal year ended March 2012

For the fiscal year 2011-2012 we realized stronger than forecasted total earnings from our business activities. At the end of the year our total income stood at approximately J\$1.1 Billion. As in prior fiscal year of 2010/2011, the bulk of our earnings continue to be derived from our management fees, which totaled some \$1billion, or 97% of total income. Other Income, which includes income from Material Testing which is conducted during road construction, represented our second highest income stream at J\$29M saw a significant increase over the previous year over year by 200%.

Table 16: Changes in Total Earnings on Year-over-Year (YOY) and Month-over-Month (MOM) bases

INCOME	MARCH 2012 (J\$ '000)	MARCH 2011 (J\$ '000)	YOY (J\$ '000)	%
Management Fees	1,115,691	426,958	688,733	161%
Motor Vehicles & Equipment Hireage	13,396	9,800	3,596	36%
Technical Services		1,106	(1,106)	
Inspection of Petroleum Service Stations	1,500	1,720	(220)	(12.79)%
Subdivision & Building Applications Services	6,306	6,610	(304)	(4.5)%
Sale of Designs		258,000		
Other Revenue	28,236	7,889	20,347	258%
TOTAL INCOME	1,165,129	712,083	453,046	63%

Total income up to the close of fiscal year ended March, 2012 represents an increase of some J\$453M (or 63% YOY). This substantial increase in total income relative to fiscal year 2010-2011 is associated with the 161% increase in management fees, which is attributed to the increase in work activities and operations on JDIP and the improvement in the timing of payment of management fees. There was a slight decrease in revenue collection from Subdivision & Building Applications Services which saw moderate decline of 4.5% due to the settling off in construction boom in the Society.

Expenses

Table 17: Changes in Operating Expenses on Year-Over-Year (YOY) and Month-Over-Month (MOM) bases

EXPENSES	MARCH 2012 (J\$ '000)	MARCH 2011 (J\$ '000)	YOY (CHANGE IN '000)	%
Staff Costs	988,696	862,099	126,597	14.68%
Goods and Services	127,290	99,895	27,395	27%
Premises related expenses	67,330	55,474	11,856	21%
Depreciation & Amortization expense	45,706	38,851	6,855	5%
Interest and Charges	883	680	203	30%
Bad Debt	191,197			100%
Other expenses	24,518	180	24,338	≥%
TOTAL OPERATING INCOME	1,445,620	1,054,979	390,641	37%

At the close of March, 2012, total operating expenses amounted to some J\$1.44 billion, which represents an increase of 37% (or J\$390 million) YOY (see Table above). This increase in expenses is primarily attributable to the corresponding increase in operational costs due to advancement in operational activities in the Projects under JDIP. All seven expense categories experienced an increase. The Other expenses category saw a sharp increase and this was due the rehabilitation of many of our Traffic Signals to make them more resistant to vehicular collision and natural disasters. There was a 100% increase YOY in bad debt expense by J\$191 million and efforts are being made to encourage debtors to liquidate arrears in a timely manner. Premises related expenses increased by 21% due to the repairs and renovation of the Corporate Office. Staff Costs, which accounts for the lion share of expenses increased by 14.68% moving from J\$862,099 at the end of fiscal year 2010/2011 to J\$988,696M to facilitate the acceleration in our projects by providing the required manpower and skills to work on the projects.

Net Financial Position

Table 18: Changes in Net Financial Position on YOY and MOM bases

EXPENSES	MARCH 2012 (J\$ '000)	MARCH 2011 (J\$ '000)	YOY (CHANGE IN '000)	%
OPERATING SURPLUS/(DEFICIT) FOR PERIOD	-(280,491)	-(342,896)	(62,405)	22%
(Loss)/Profit on disposal of fixed assets	7,724	3,346	378	11%
Interest income	14,558	19,257	(4,699)	(-24)%
Donated assets amortization	21,107	12,733	8,374	65%
NET SURPLUS/(DEFICIT) BEFORE GOJ FINANCING	-241,101	-307,560	(66,459)	21%
GOJ Financing from Consolidated Fund	510,771	463,056	47,715	10%
NET SURPLUS/(DEFICIT) FOR THE PERIOD AFTER GOJ FINANCING	269,669	155,496	114,173	73%

Our Operating Deficit at the close of March 2012 stood at J\$280 million, which was 22% lower than the deficit recorded in the previous year. This represents an improvement in our financial position (see Table above). This deficit was further offset by profit arising from the disposal of fixed assets, interest income of some J\$14 million, and amortization of donated assets. As at the end of March 2012, we realized a Net Deficit of J\$241 million which is J\$66M below the deficit recorded for last fiscal year. This represents a 21% decline or improvement in our net fiscal position YOY. Compared to the same reference period in fiscal year 2010/2011, the GOJ Financing from the Consolidated Fund increased by 10% YOY.

Overall, there are signs that our negative fiscal position is on the road to recovery and will continue to improve as we advance major works on our projects and the Management Fees are remunerated. It is important to note that increases in costs, most unavoidable, continues to play a large role in our financial performance.

Nonetheless, efforts to restrain costs continue, and it is expected that our financial position will be strengthen and reflect a positive outturn in subsequent periods.



AUDITOR GENERAL'S DEPARTMENT
40 Knutsford Boulevard
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KINGSTON 5
JAMAICA

ANY REPLY OR SUBSEQUENT REFERENCE
TO THIS COMMUNICATION SHOULD BE
ADDRESSED TO THE AUDITOR GENERAL
AND NOT TO ANY OFFICER BY NAME
AND THE FOLLOWING REFERENCE
QUOTED:-

Tel. No.: 926-8309/926-5963/926-5846
Fax Number: 968-4690
Email: audgen@auditorgeneral.gov.jm

INDEPENDENT AUDITOR'S REPORT

**To the Chief Executive Officer
National Works Agency**

Report on the Financial Statements

I have audited the accompanying Financial Statements of the National Works Agency, set out on pages 1 to 15, which comprise the Statement of Financial Position as at March 31, 2012, Statement of Financial Performance, Statement of Changes in Equity and Statement of Cash flows for the year then ended, and a summary of significant accounting policies and other explanatory notes.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these Financial Statements in accordance with International Public Sector Accounting Standards. This responsibility includes: designing, implementing and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on these Financial Statements based on my audit. I conducted my audit in accordance with the auditing standards issued by the International Organization of Supreme Audit Institutions. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Financial Statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Financial Statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the

financial statements in order to design audit procedures that are appropriate in the circumstances.

An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion the Financial Statements give a true and fair view of the financial position of the National Works Agency as at March 31, 2012, and of its Statement of Financial Performance, and its cash flows for the year then ended in accordance with International Public Sector Accounting Standards.

Emphasis of Matter

I draw your attention to the Statement of Financial Position and notes 6, 16 & 19 where it is disclosed that the National Works Agency refurbished its Corporate Office for \$103.20 million. The cost for the refurbishing was expensed in FY 2010/2011. However, the National Works Agency has reclassified the expenses to accounts receivable for further assessment by its engineering unit and clarification from the contractor and the Ministry of Finance on the nature of work done. My opinion is not qualified in respect of this matter.

Report on Additional Requirements of the Executive Agencies Act

I have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purpose of the audit. In my opinion, proper accounting records have been maintained and the Financial Statements are in agreement therewith and give the information required in the manner so required. Except that, the Agency failed to obtain approval from the Cabinet for the refurbishing of its Corporate Office for \$103.20 million as required by Appendix 6 of the Handbook of Public Sector Procurement Guidelines Vol. 2 for Procurement of General Services and Works, dated October 2010 (revised), which states that contracts valued at amounts greater than \$30 million should be submitted to Cabinet for approval. My opinion is not qualified in respect of this matter.



Auditor General

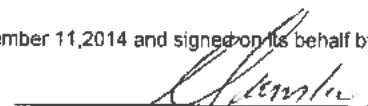
2012/12/12
Date

**NATIONAL WORKS AGENCY
STATEMENT OF FINANCIAL POSITION
AS AT MARCH 31, 2012**

	Note	2012 \$'000	Restated 2011 \$'000
Non-current assets			
Property, plant and equipment	5	118,492	85,488
		<u>118,492</u>	<u>85,488</u>
Current assets			
Trade and other receivables	6	1,279,724	963,500
Client's deposit	8 (a)	379,283	628,723
Investment	7	416,216	401,752
Cash at bank & in hand	9	40,968	80,053
		<u>2,116,191</u>	<u>2,074,028</u>
Current liabilities			
Payables and accruals	10	425,291	465,430
Amounts payable to Accountant General	11	223,583	99,278
Client's deposit	8 (b)	660,283	909,723
Employee benefits	12	238,190	185,013
		<u>1,547,347</u>	<u>1,659,444</u>
Net current assets		<u>568,844</u>	<u>414,585</u>
Total Assets		<u><u>687,336</u></u>	<u><u>500,072</u></u>
Equity			
Capital (GOJ Investment)		166,940	166,940
General reserve		425,272	290,438
Donated assets reserve		95,124	42,694
		<u><u>687,336</u></u>	<u><u>500,072</u></u>

Approved for issue on behalf of the National Works Agency on December 11, 2014 and signed on its behalf by:


Mr. Everton G. Hunter
Chief Executive Officer


Mrs. Pauline Dunstan
Director of Finance and Accounts

The accompanying notes on pages 5-15 form an integral part of these financial statements

**NATIONAL WORKS AGENCY
STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED MARCH 31, 2012**

		2012	Restated 2011
	Note	\$'000	\$'000
INCOME			
Management fees		1,115,691	426,958
Motor vehicle and equipment hireage		13,396	9,800
Technical services		-	1,106
Inspection petroleum station		1,500	1,720
Subdivision and building application services		6,306	6,610
Sale of designs	16	-	258,000
Others	15	28,236	7,889
Total Income		1,165,129	712,083
EXPENDITURE			
Staff costs	17	988,696	862,099
Goods and services		127,290	99,895
Premises related services		67,330	55,474
Depreciation		45,706	36,651
Interest and charges		883	680
Bad debts		191,197	-
Other costs		24,518	180
Total Operating Expenses		1,445,620	1,054,979
Operating Surplus/(Deficit)		(280,491)	(342,896)
Profit/(Loss) on disposal of fixed assets		3,724	3,346
Interest income		14,558	19,257
Donated assets amortization		21,107	12,733
Net (deficit) before GOJ Financing		(241,101)	(307,560)
GOJ financing from Consolidated Fund		510,771	463,056
Net surplus after GOJ financing		269,669	155,496
50% Net surplus to Consolidated Fund		(134,835)	(77,748)
Net surplus		134,834	77,748

The accompanying notes on pages 5-15 form an integral part of these financial statements

**NATIONAL WORKS AGENCY
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED MARCH 31, 2012**

	Contributed capital \$'000	Donated assets reserve \$'000	General reserve \$'000	Total \$'000
Balance as at March 31, 2010	166,940	33,003	212,690	412,633
Net Surplus for the year being recognised income	-	-	26,148	26,148
Additions	-	22,424	-	22,424
Transfer to General Reserve	-	(12,733)	-	(12,733)
Balance as at March 31, 2011	166,940	42,694	238,838	448,472
Restated			51,600	51,600
Adjusted balance as at March 31, 2011	166,940	42,694	290,438	500,072
Net Surplus for the year being recognised income	-	-	134,834	134,834
Additions	-	73,537	-	73,537
Transfer to General Reserve	-	(21,107)	-	(21,107)
Balance as at March 31, 2012	166,940	95,124	425,272	687,336

The accompanying notes on pages 5-15 form an integral part of these financial statements

**NATIONAL WORKS AGENCY
STATEMENT OF CASH FLOW
FOR THE YEAR ENDED MARCH 31, 2012**

	2012	2011
	\$'000	\$'000
Cash flows from operating activities		
Surplus/(Deficit) for the year	(241,101)	(410,760)
Recurrent financing from Consolidated Fund	510,771	463,056
	269,669	52,296
50% Net surplus to Consolidated Fund	(134,835)	(26,148)
Net (deficit)/surplus	134,834	26,148
Adjustments:		
Depreciation	45,706	36,651
(Profit)/Loss on sale of fixed assets	(3,724)	(3,346)
Depreciation write- off	-	331
(Increase)/decrease in receivables	(66,785)	(27,690)
(decrease)/increase in payables	(112,097)	(58,816)
Transfer from donated asset reserves	(21,107)	(12,733)
Net cash provided from operating activities	(23,173)	(39,455)
Cash flows from investing activities		
Capital expenditure	(5,284)	(1,994)
Capital expenditure - Grant	(73,537)	(22,424)
Proceeds from sale of fixed assets	3,835	4,354
(Acquisition)/divestment of investment	(14,463)	37,226
Net cash used in investing activities	(89,449)	17,162
Cash flows from financing activities		
Capital grant received	73,537	22,424
Net cash flows from financing activities	73,537	22,424
Increase/(decrease) in cash and cash equivalents	(39,085)	131
Cash and cash equivalents at beginning of year	80,053	79,922
Cash and cash equivalents at end of year	40,968	80,053

The accompanying notes on pages 5-15 form an integral part of these financial statements

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

1. Identification

The National Works Agency (NWA) was created as an Executive Agency under the Ministry of Transport and Works with effect from April 1, 2001. It took over the functions of the former Public Works Department. The principal activities of the NWA are to plan, build and maintain a reliable, safe and efficient main road network and flood control system. The NWA is regulated by the dictates of government policy and is mandated to achieve strict performance objectives as an Executive Agency.

2. Statement of compliance

- i. These financial statements have been prepared in accordance with the requirements of the Financial Instructions to Executive Agencies. These instructions require the application of Generally Accepted Accounting Principles which is based on International Public Sector Accounting Standards (IPSAS). IPSAS's are developed by the International Public Sector Accounting Standards Board. The IPSAS Board is an independent board of the International Federation of the Accountants. IPSAS's are based on International Financial Reporting Standards (IFRSs).
- ii. IPSAS deals with public sector reporting issues not addressed by IFRSs. The preparation of the financial statements to conform to IPSAS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, contingent assets and contingent liabilities at the balance sheet date and the revenue and expenses during the reporting period. Actual results could differ from those estimates. The estimates and the underlying assumptions are reviewed on an ongoing basis and any adjustments that may be necessary would be reflected in the year in which actual results are known.

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

3. Significant accounting policies

i. Basis of preparation

The financial statements have been prepared under the historical cost convention and are presented in Jamaica dollars (\$), which is the reporting currency of the Agency.

ii. Cash and cash equivalents

Cash and cash equivalents are carried in the balance sheet at cost. For the purpose of the cash flow statement, cash and cash equivalents comprise cash at bank, in hand, and investments.

iii. Receivables

Trade receivables are carried at original invoice amounts less provision made for impairment losses. A provision for impairment is established when there is evidence that the entity will not be able to collect all amounts due according to the original terms of receivables.

iv. Accounts payable and accrued charges

Accounts payables are carried at cost for the supply of goods and services and accruals is based on a fair estimate of liability at the end of the financial year. The amounts are payable within one year.

v. Property, plant and equipment

Property, plant and equipment are stated at historical cost less accumulated depreciation and impairment reviews.

Subsequent costs are included in the asset's carrying amount or are recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Agency and the cost of the item can be measured reliably. All other repairs and maintenance costs are charged to other operating expenses during the financial period in which they are incurred.

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

3. Significant accounting policies (cont'd)

v. Property, plant and equipment (cont'd)

Depreciation on assets is calculated on the straight-line basis at annual rates that will write off the carrying value of each asset over the period of its expected useful life. Annual depreciation rates or periods over which depreciation is charged are as follows:

Plant, machinery and equipment	10 years
Furniture fixtures and fittings	10 years
Computers and office equipment	5 years
Motor vehicles	5 years
Specialist assets	20 years

Property, plant and equipment are reviewed periodically for impairment. Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

vi. Amortisation of donated assets reserve

The reserve is written off on a straight line basis over the life of the assets.

vii. Provisions

Provisions are recognised when the entity has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

viii. Financial Instruments

A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. The Agency's financial instruments at March 31, 2012 were receivables and payables.

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

3. Significant accounting policies (Cont'd)

ix. Revenue recognition

Revenue is fees earned and is measured at the fair value of the consideration received or receivable and represents amount recoverable for services provided in the normal course of business.

Subvention is recognized when it is received.

Interest revenue is recognised in the statement of financial performance for all interest bearing instruments on an accrual basis.

x. Repairs to Government building

Expense to repairs the Corporate office and other NWA's offices are recognise in the statement of financial performance on the basis that these building are owned by the Government of Jamaica via National Land Agency.

4. Financial Risk Management

The Agency's activities expose it to a variety of financial risks: market risks (including currency risk and price risk), credit risk, liquidity risk, interest rate risk and operational risk. The Agency's overall risk management policies are established to identify and analyse risk exposure and to set appropriate risk limits and controls and to monitor risk. The risk management framework is based on guidelines set by management and seeks to minimize potential adverse effects on the Agency's financial performance.

a. Market risk

The Agency takes on exposure to market risks, which is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks mainly arise from changes in foreign currency exchange rates and interest rates. Market risk exposures are measured using sensitivity analysis. There has been no change to the Agency's exposure to market risks or the manner in which it manages and measures the risk.

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

4. Financial Risk Management (cont'd)

a. Market risk (cont'd)

i. Currency risk

Currency risk is the risk that the value of a financial instrument will fluctuate because of changes in foreign exchange rates.

ii. Interest rate risk

Interest rate risk is the risk that the interest earned on interest bearing bank account balances will fluctuate due to changes in market interest rate. The Agency's interest rate risk arises from deposits as follows:

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Cash resources (excluding cash in hand)	40,641	79,723
Investments in fixed deposits	<u>416,216</u>	<u>401,752</u>
	<u>456,857</u>	<u>481,475</u>

b. Liquidity risk

Liquidity risk is the risk that an Agency will encounter difficulty in raising funds to meet its commitments associated with financial instruments. The risk is managed by maintaining sufficient cash and cash equivalents balances.

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

4. Financial Risk Management (Cont'd)
b. Liquidity risk (cont'd)

Financial Liabilities	Carrying amount	Contract amount	Due within 3 months	Due within 1 year
	\$'000	\$'000	\$'000	\$'000
Payables and accruals	425,291	425,291	37,188	388,103
Client's deposits	660,283	660,283	-	660,283
Accountant General	223,583	223,583	-	223,583
Employee benefits	238,190	238,190	-	238,190
March 31, 2012	<u>1,547,347</u>	<u>1,547,347</u>	<u>37,188</u>	<u>1,510,159</u>

Financial Liabilities	Carrying amount	Contract amount	Due within 3 months	Due within 1 year
	\$'000	\$'000	\$'000	\$'000
Payables and accruals	465,430	465,430	106,458	358,972
Client's deposits	909,723	909,723	-	909,723
Accountant General	99,278	99,278	-	99,278
Employee benefits	185,013	185,013	-	185,013
March 31, 2011	<u>1,659,444</u>	<u>1,659,444</u>	<u>106,458</u>	<u>1,552,986</u>

c. Credit risk

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. The Agency has the following cash resources:

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Cash and cash equivalents	40,968	80,053
Investments	416,216	401,752
Client's deposits	379,283	628,723
Accounts receivable and advances	1,279,724	963,500
	<u>2,116,191</u>	<u>2,074,028</u>

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

5. Property, plant and equipment

	Plant, machinery and equipment	Computers and office equipment	Furniture, fixtures and fittings	Motor vehicles	Specialist assets	Total
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Cost						
April 1, 2011	158,158	111,045	29,664	53,248	29,789	381,904
Additions	-	598	4,686	-	-	5,284
Donated	40,820	28,282	-	2,954	1,481	73,537
Disposals	(7,955)	(8,196)	(524)	(1,637)	-	(18,312)
March 31, 2012	191,023	131,729	33,826	54,565	31,270	442,413
Depreciation						
April 1, 2011	144,568	75,224	20,746	39,924	15,954	296,416
Depreciation charges	19,458	15,134	3,056	5,788	2,270	45,706
Disposal	(7,955)	(8,152)	(457)	(1,637)	-	(18,201)
March 31, 2012	156,071	82,206	23,345	44,075	18,224	323,921
Net book value:						
March 31, 2012	34,952	49,523	10,481	10,490	13,046	118,492
March 31, 2011	13,590	35,822	8,918	13,324	13,835	85,488

6. Trade and other receivables

	2012	2011
	\$'000	\$'000
Accounts receivable	1,322,317	645,531
Contracts receivables	219,075	409,598
Northern Jamaica Development Project	148	148
Refurbishing of Corporate Office (Note 19)	103,200	103,200
Prepayment and other current assets	4,727	7,030
Provision for doubtful debts	(369,743)	(202,007)
	1,279,724	963,500

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

7. Investment

This represents amounts deposited by client to undertake a number of projects being invested. All interest earned is used for operating purposes.

8. Client deposits

		<u>2012</u>	<u>2011</u>
		\$'000	\$'000
General deposits		25,804	407,091
Northern Jamaica Development Project		30,190	6,304
National Road Service Improvement Project		-	1,016
Washington Boulevard Improvement Project		1,382	1,407
Capital A and B Projects		<u>321,907</u>	<u>212,905</u>
Bank	a	379,283	628,723
Investments	note 7 above	<u>281,000</u>	<u>281,000</u>
Total	b	<u>660,283</u>	<u>909,723</u>

9. Cash and cash equivalents

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Cash at bank	40,640	79,725
Cash in hand	<u>328</u>	<u>328</u>
	<u>40,968</u>	<u>80,053</u>

10. Payables and accruals

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Accounts payable	37,187	26,668
NWA Contracts liability	219,075	409,598
Advance from client Deposit	145,000	5,000
Other payables	<u>24,029</u>	<u>24,164</u>
Total	<u>425,291</u>	<u>465,430</u>

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

11. Accountant General payable

- a. This represents 50% of net surplus earned by the Agency to be paid into the Consolidated Fund in accordance with the Financial Instructions to Executive Agencies.

12. Employee benefits

	<u>2012</u>	<u>2011</u>
	\$000	\$000
Provision for increments	5,634	-
Provision for salary arrears	84,894	87,123
Provision for vacation leave	47,620	40,526
Provision for incentive	100,042	57,364
	<u>238,190</u>	<u>185,013</u>

13. GOJ equity

The initial capital investment from Government of Jamaica is represented by the value of the fixed assets transferred from the Ministry of Transport and Works and are deemed to be the Capital assets retained by the Agency at April 1, 2001. This has now been converted to equity.

14. Donated assets reserve

This represents the residual value of the assets donated to the Agency by the Government of Jamaica and other multinationals.

15. Other income

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Material Evaluation Testing	18,267	-
Planning and research services	4,547	3,721
Tender documents	444	404
Administrative services	66	76
Mechanical services	4,912	3,360
Proceed from sale of scrap metal	-	328
	<u>28,236</u>	<u>7,889</u>

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

16. Sale of designs

During the financial year ended March 31, 2011 the Agency signed a professional services agreement with China Harbour Engineering Company for the sale of project designs valued at US\$ 3Million. The terms of the agreement were to receive a cash payment of US\$1.8Million and US\$1.2Million was earmarked for the refurbishing of the Corporate Office at 140 Maxfield Avenue.

17. Staff costs

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Salaries and wages	722,803	617,310
Travelling allowance and subsistence	193,354	168,349
Employee benefits	30,941	35,525
Statutory and other contributions	41,598	40,915
	<u>988,696</u>	<u>862,099</u>

18. Staff emoluments

- a. The required disclosure of employees in receipt of emoluments of over J\$2 Million per annum (FIEA Sec. 13.3.1) is stated hereunder as at financial year ended March 31, 2012

NUMBER OF EMPLOYEES	SALARY RANGE (\$Million)
7	2.00 – 2.25
7	2.26 – 2.50
6	2.51 – 2.75
7	2.76 – 3.00
16	3.01 – 3.25
1	3.26 – 3.50
1	3.51 – 3.75
6	3.76 – 4.00
1	4.01 – 4.25
1	4.26 – 4.50
1	4.51 – 4.75
Nil	4.76 – 6.00
1	6.01 – 6.25
Total	55 employees

NATIONAL WORKS AGENCY
Notes to the Financial Statements
Year ended March 31, 2012

18. Staff emoluments (cont'd)

b. Key Management Compensation:

	<u>2012</u>	<u>2011</u>
	\$'000	\$'000
Basic salaries and travelling	64,624	66,795
Gratuity	3,100	1,385
Pension	1,779	6,399
Other short term benefits	-	276
	<u>69,503</u>	<u>74,855</u>

19. Refurbishing of corporate office

This represents the amount that was earmarked under the professional services agreement with China Harbour Engineering Company (CHEC) for the refurbishing of the Agency's Corporate Office. The Agency reclassified the refurbishing expenses to accounts receivable for further assessment by the engineering unit to determine whether the expenses should be recognized as capital expenditure or recurrent expenses.

20. Other costs

This represents cost to maintain traffic lights for the financial year.

NATIONAL WORKS AGENCY

Statement of Internal Control

March 31, 2012

In accordance with the Financial Instructions to Executive Agencies, the National Works Agency has adopted a system of internal control to embrace:

- **Financial and Operational Control Systems and Procedures.** This includes the physical safeguard of assets, segregation of duties, restricted access, certification, authorization and approval, adherence to policies and procedures and information systems controls.

The Agency acquired a Financial Management System in 2001 and commenced the preparation of its accounts using accrual based accounting on April 1, 2001. The staff members in the Finance and Accounts Department are very proficient. It is continuously emphasized that each staff member must adhere to the policies and procedures in place, as any deviation will result in disciplinary actions being taken. All systems require a password to access and there exists restricted access to pertinent data. Additionally, physical access by staff is restricted in areas such as the Cashier's enclosure, records and cheque storage vaults, computer server and cheque printing room.

- **The Existence of Management Controls.** This is done through the setting of objectives, effective monitoring of financial and non-financial performance indicators, the assessment of changing circumstances for those that impact on the Agency and the application of measures to correct circumstances that prevent targets from being achieved.

The Agency's Corporate Planning exercise commences with a set of strategic directions issued by the Chief Executive Officer, usually in the month of January. During the exercise the previous year's performance is assessed, the strategic plans and justification for budgetary requirements are presented by the relevant Directors. These are evaluated and where applicable approved.

There exists timely management accounting reports in respect of costs and variances; comprehensive reporting on all Key Performance Indicators and targets. The monitoring of all contracts to ensure that value for money is achieved is an ongoing exercise.

NATIONAL WORKS AGENCY

Statement of Internal Control - continued

March 31, 2012

The Agency's Human Resource function is audited by the Office of the Services Commission which conducts review of the Agency's establishment, organization chart, job selection procedures, training and development and also provides human resource advice.

The Executive Agency Monitoring Unit of the Ministry of Finance ensures that proper standards and procedures are followed by the Agency. It supports and ensures that the Agency's financial framework is in place with respect to accountability, transparency, control and improved performance.

The Agency convenes quarterly review meetings with the Ministry of Transport and Works to facilitate the appraisal of the Agency's performance in regard to the progress and implementation of the Ministry's projects. The Ministry also provides feedback on policy issues that may arise.

The Agency's Advisory Board is chaired by an external person and includes other external persons who are appointed based on their professional expertise. Meetings are convened monthly to review the Agency's performance and the board provides advice to the Chief Executive Officer.

- **Internal Audit Review** - The Internal Audit function is an integral part of the management of the Agency that reviews and makes recommendations for implementation. The Chief Internal Auditor at all times remains independent. All internal weaknesses and discrepancies identified are reported and the necessary measures put in place to correct each. Quarterly reports are prepared and submitted to the Chief Executive Officer and the Audit Committee.

- **Audit Committee Review** - The Audit Committee which includes independent members reviews the report submitted by the Internal Auditor and provides independent advice to the Management of the Agency on internal control issues.

Notes

Notes

