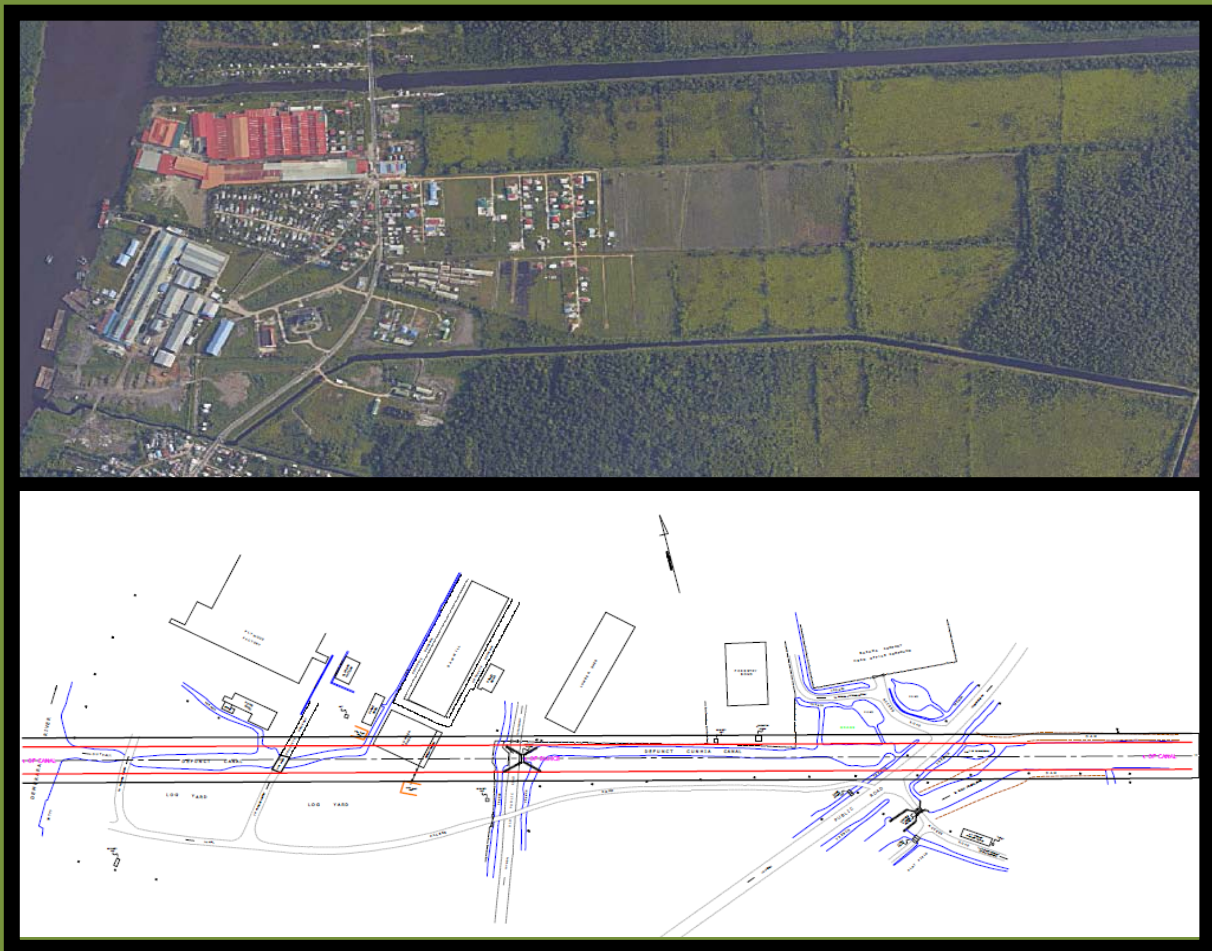


MINISTRY OF AGRICULTURE

RP1320

ABBREVIATED RESETTLEMENT PLAN

Rehabilitation of the Cunha Relief Channel and Structures



July, 2012

ABBREVIATED RESETTLEMENT PLAN

REHABILITATION OF THE CUNHA RELIEF CHANNEL AND STRUCTURES

JULY, 2012

MINISTRY OF AGRICULTURE

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ABBREVIATED RESETTLEMENT PLAN

ACRONYMS

AP	Affected persons
ARP	Abbreviated Resettlement Plan
ASDU	Agriculture Sector Development Unit
BCL	Barama Company Limited
CAP	Conservancy Adaptation Project
CDC	Civil Defence Commission
CEO	Chief Executive Officer
D/S	Downstream
EBD	East Bank Demerara
EDWC	East Demerara Water Conservancy
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ESA	Environmental and Social Assessment
GD	Georgetown Datum
GL&SC	Guyana Lands and Surveys Commission
GoG	Government of Guyana
GPL	Guyana Power and Light Company
GT&T	Guyana Telephone and Telegraph Company
GWI	Guyana Water Incorporated
Hydromet	Guyana Hydrometeorological Authority
IDB	Inter-American Development Bank
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoHW	Ministry of Housing and Water
MoPWC	Ministry of Public Works and Communications
NDC	Neighbourhood Democratic Council
NDIA	National Drainage and Irrigation Authority
RDC	Regional Democratic Council

Summary Resettlement Plan

1.0 Introduction

The Cunha canal and hydraulic structures provide relief to the East Demerara Water Conservancy (EDWC). This canal was diverted several years ago and as a result operates at a reduced capacity. It is proposed to re-establish the canal to its design parameters thereby improving its current discharge efficiency. The original alignment was filled-in to accommodate a private timber company, Barama Company Limited (BCL), and therefore the project will entail some displacement. The purpose of this document is to detail all pertinent considerations for resettlement.

2.0 Project

The project is known as the Rehabilitation of the Cunha Relief Channel and Structures and is located from the western embankment of the EDWC to the east bank of the Demerara River at Land of Canaan, East Bank Demerara (EBD). The project seeks to drain flood waters from the EDWC to the Demerara River via an earthen channel and incorporating the following control structures: an existing concrete head regulator, a new prestressed concrete bridge and a rehabilitated reinforced concrete river sluice.

3.0 Statement of Problem

The re-routing of the canal will result in the displacement of a number of structures within the property of BCL. In deciding on the final alignment of the channel a number of alternatives were considered and the most appropriate selected. The construction of the public road bridge will affect the transportation route, and utilities along the East Bank Public Road. In constructing the bridge a diversion route will be established and utilities will be re-routed with minimum disruption.

4.0 Legal Framework

The laws regulating this matter are the Laws of Guyana, Chapter 64:04 Drainage and Irrigation. The National Drainage and Irrigation Authority (NDIA) is an organization crafted by the state to

ABBREVIATED RESETTLEMENT PLAN

provide Drainage and Irrigation services in the Agriculture Sector. The laws permit the acquisition of lands to improve the drainage and irrigation within any area while providing compensation and legal resources to those affected.

5.0 Census survey of displaced persons and valuation of assets

The proposed civil works do require the intake of a portion of land owned by BCL and the relocation of certain assets that are within this area. Table 1 presents an itemized list of all affected assets.

Table 1: List of displaced assets

#	Item
1	Log Bridge
2	Steel Bridge
3	Moulding Shed
4	Saw Dust Pen
5	Equipment
6	Fence
7	Guard hut #1
8	Guard hut #2
9	Fuel Storage
10	Utilities

6.0 Description of compensation and other resettlement assistance to be provided

The proposed wayleave for the relief channel and the river sluice between the Public Road and the river embankment is located on land currently owned by BCL. This company has agreed to dispose of the land to the Government of Guyana (GoG). This cost will be covered by the GoG. During the relocation period the company will outsource the work of the affected facilities. The total negotiated cash settlement will be paid to BCL who will be responsible for resettlement of their displaced assets within an agreed period of three (3) months.

7.0 Consultations with displaced people about acceptable alternatives

During engagements with BCL and other stakeholders various design alternatives were studied with the intention of minimizing adverse impacts. During this study three options for the project layout were identified and evaluated. The preferred option was agreed to since it allowed for more efficient conveyance because it provides a straight alignment. The other options consisted of curves in the alignment which reduces the hydraulic efficiency and would entail erosion of the earthen embankments.

8.0 Arrangements for implementation , monitoring and procedures for grievance redress:

During project implementation, staff of the Executing Agency, Agriculture Sector Development Unit (ASDU), will prepare progress reports on all aspects of land acquisition, compensation and resettlement activities and operations. Technical staff from the NDIA and ASDU will be assigned to the project to oversee the implementation of the resettlement plan and to supervise activities carried out during preparation and implementation of the civil works. Monthly and quarterly reports will be prepared, circulated and later discussed with all stakeholders during routinely scheduled conferences.

9.0 Timetable and budget.

All the activities of the ARP are expected to be completed in three (3) months. All resettlement activities will commence after compensation has been paid. Since only a small part of the project area is affected, resettlement activities in the affected areas will be done concurrently with civil works in unaffected areas.

Resettlement Plan

1.0 Introduction

The aim of the project is to drain flood waters from the EDWC to the Demerara River. The EDWC is a large shallow reservoir which is utilized for the supply of irrigation to farmlands in the East Coast Demerara (ECD) and the East Bank Demerara (EBD) and for surface water to the Georgetown municipality (See Figure 1.1). The water is impounded by a relatively weak earthen embankment which is likely to be breached if the full supply level of the conservancy is exceeded. Such a breach would cause widespread flooding and damages to farmlands and residential areas.

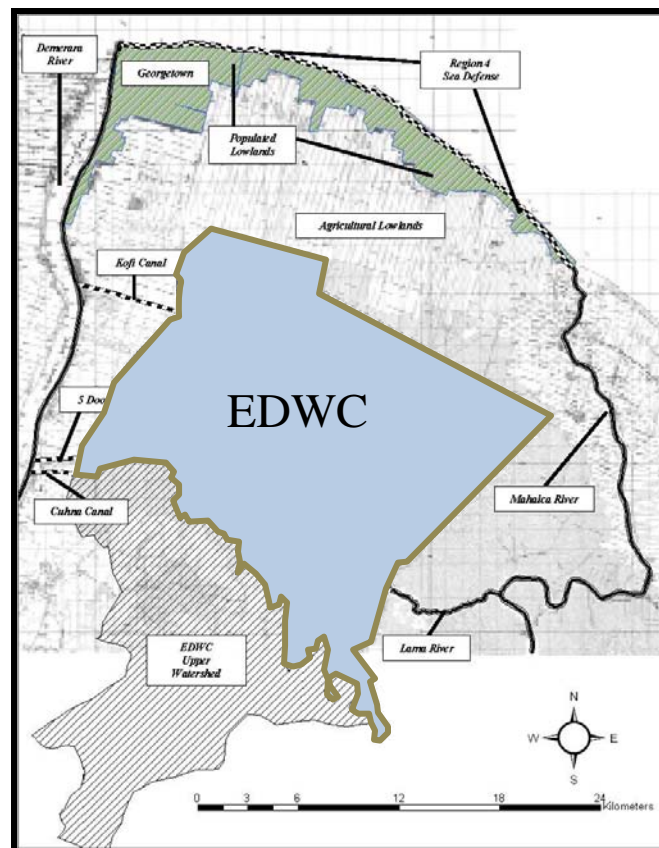


Figure 1.1: East Demerara Water Conservancy (EDWC)

A number of drainage relief channels with their associated water control structures have been constructed to facilitate drainage to the Mahaica River and/or Demerara River when the full

ABBREVIATED RESETTLEMENT PLAN

supply level of the EDWC is exceeded or likely to be exceeded. One such relief channel is the Cunha canal which is located at Land of Canaan on the East Bank of the Demerara River. It has an operable single door head regulator located on the EDWC embankment and a defunct river sluice which formerly discharged into the Demerara River via an outfall channel. The Cunha channel is not continuous as it is intersected by the East Bank Demerara public road. Figure 1.2 shows the relative location of the various components of the project which are as follows:

- Rehabilitation of the existing Cunha channel from the head regulator to the public road
- Construction of a new channel from the public road to the river
- Construction of a new concrete bridge at the public road
- Rehabilitation of a reinforced concrete river sluice with a single timber door.

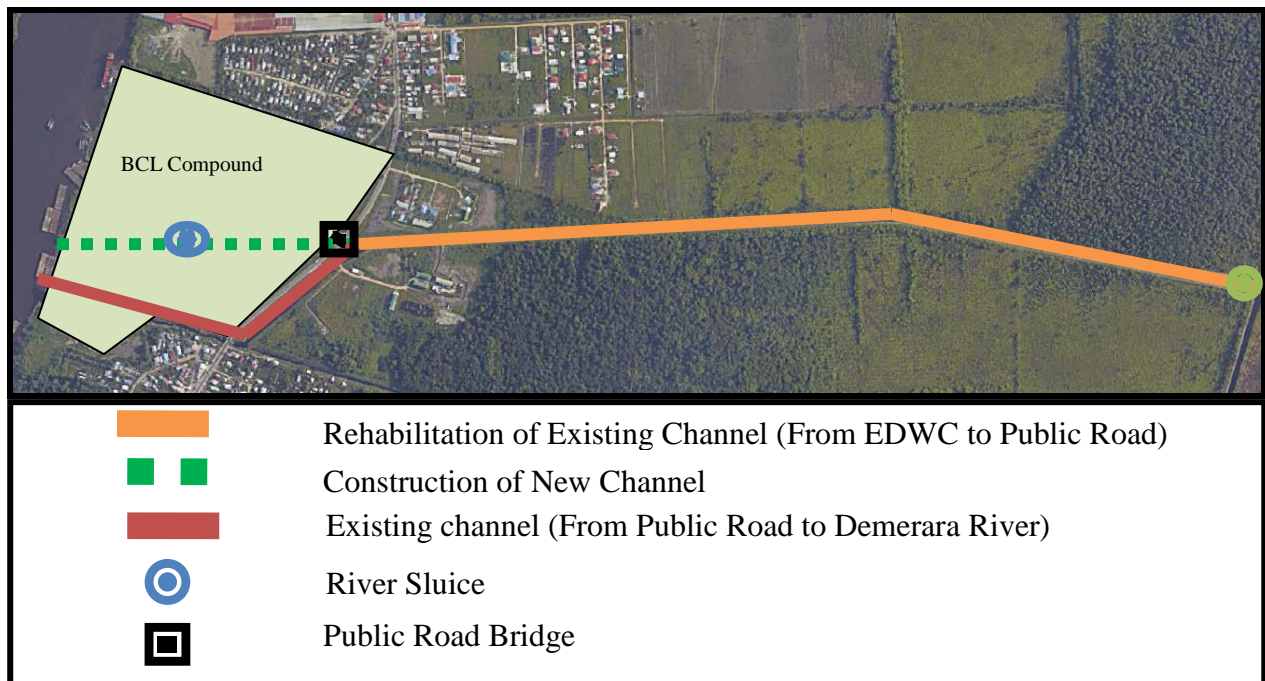


Figure 1.2: Project Area and Components

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2.0 PROJECT

The total length of the Cunha relief channel is 2.8 km. The relief channel originates at the EDWC and discharges into the Demerara River. The trajectory of the channel from the EDWC is fairly straight until it reaches the East Bank Public Road where it diverts sharply. This diversion is thought to cause inefficiency in the conveyance of the channel and as such the need for realignment. The section of the Cunha channel from the head regulator to the East Bank Public Road is in use but in need of rehabilitation. This section of the canal has been reduced over time due to vegetation and siltation. It is proposed to rehabilitate the canal to a bed width of 23ft and a total wayleave of 115ft. Figure 2.1 shows the current state of maintenance of the channel and the typical cross section of the rehabilitated channel.

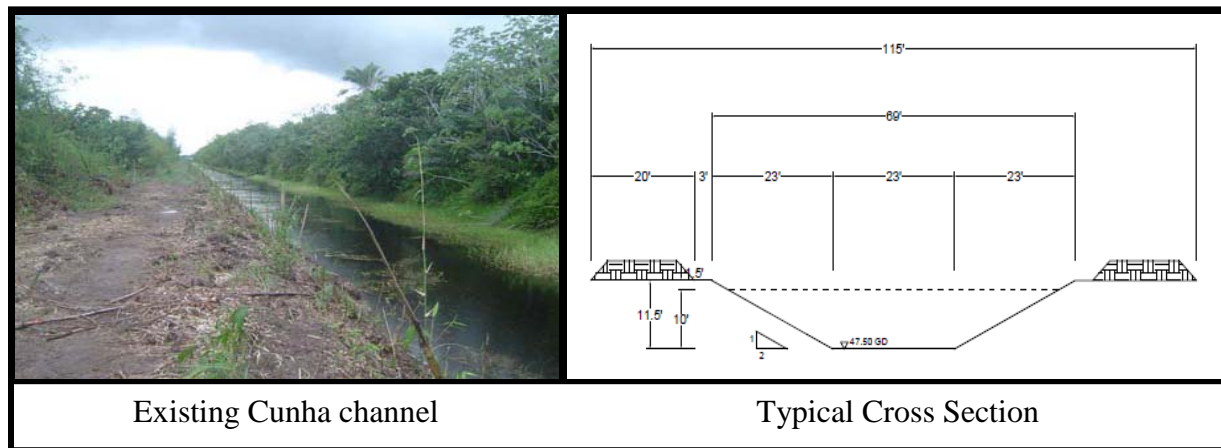


Figure 2.1: Rehabilitation of the existing channel from the head regulator to the public road

At the point where the Cunha channel intersects the East Bank Public Road a Pre-stressed Concrete Bridge will be constructed. The bridge will consist of three spans of 39'-1" and a width of 48'-4". Figure 2.2 shows the longitudinal view of the bridge.

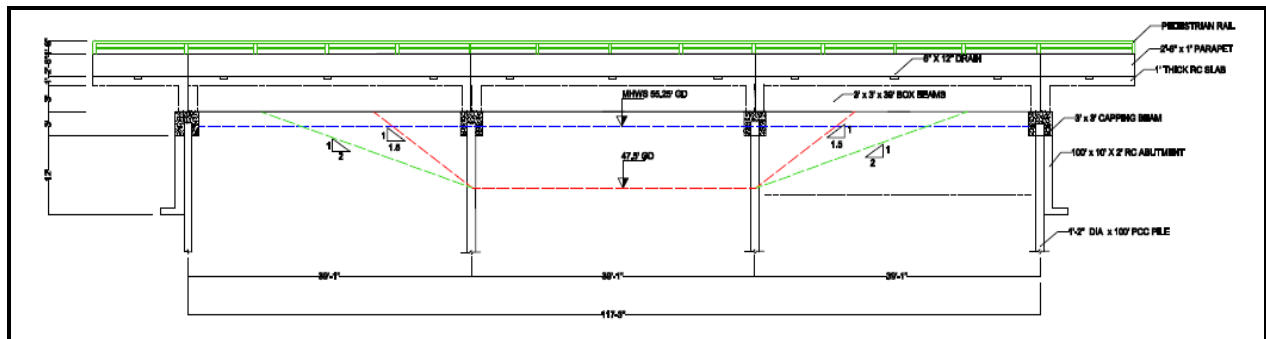


Figure 2.2: Longitudinal view of the bridge

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The channel from the East Bank Public Road to the Demerara River was altered with the establishment of BCL in the 1990's. The Original alignment was straight to the Demerara River through a sluice located along the Old Public Road. The Canal was diverted south west along the new EBD Public Road and then west through a sluice located between Land of Canaan and Sarah Johanna. The original alignment of the channel will be re-established, but since this section of channel is now within the property of BCL land acquisition is required. BCL has agreed to accommodate the project by selling the land at a nominal cost on the condition that the cost for the displacement of assets is reimbursed by GoG. It is proposed to re-construct the canal with a bed width of 23ft and a total wayleave of 115ft. Figure 2.3 shows the original alignment of the channel and the typical cross section of the rehabilitated channel.

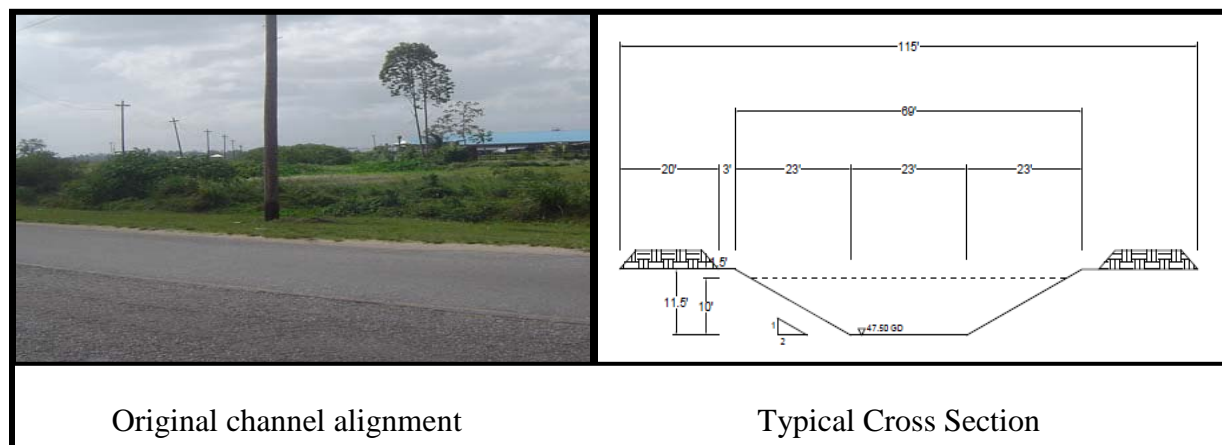


Figure 2.3: Construction of New channel from the public road to the Demerara River

The River Sluice was abandoned along with the original alignment. It is proposed to reactivate this structure together with the original alignment. The structure is of reinforced concrete and consists of a timber door controlled by a manual lifting mechanism (winch). Figure 2.4 shows the river sluice to be reactivated.



Figure 2.4 River Sluice to be reactivated

3.0 Statement of Problem

The proposed project will impact principally on the following; Transit along the East Bank Public Road, private lands and the operations of a private company BCL.

3.1 Transit along the Public Road

The East Bank Public road will be intercepted by the Cunha channel and as such a bridge will have to be constructed in this location. The agency responsible for public roads is the Ministry of Public Works and Communications (MoPWC). A memorandum of understanding was signed between the MOA and MoPWC governing the design, construction, supervision and maintenance of the public road bridge across the Cunha channel. Subsequently, the proposed design of the bridge was reviewed and approved by this agency. Please see Appendix 1: Memorandum of Understanding between MoA and MoPWC. Please see Appendix 2: No Objection on Bridge Design from MoPWC. The construction of the public road bridge can potentially disrupt traffic along the East Bank corridor if adequate provisions are not in place during project execution. The estimates for this component of the schedule of works allows for the construction of a diversion of equal or greater transit capacity and the relocation of utilities. Henceforth this potential problem is considered sufficiently addressed.

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3.2 Permanent Land Take and Impacts

The section of land, from the East Bank Public Road to the Demerara River, required for project intake is approximately 5.3 acres. This land forms part of the property of BCL where Plywood and sawmilling operations are performed. As such located therein are several assets which will have to be relocated. Figure 3.1 shows a section of the property of BCL and affected assets.

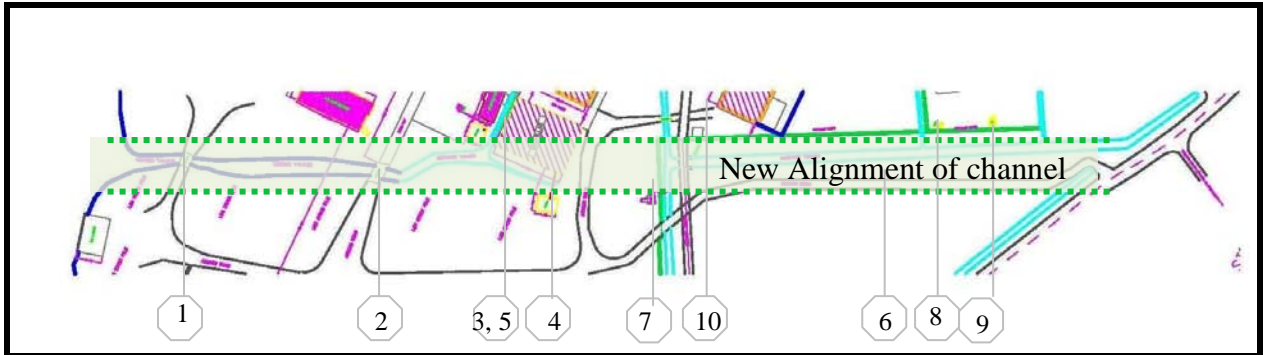


Figure 3.1 Section of the property of BCL and assets that will be affected (see details including items numbered in Table 3)

The impacts of the relocation are; the size of the property will be reduced and the operations carried out by the displaced assets will be interrupted until the relocation is completed. In order to satisfy market obligations these operations will have to be outsourced, and the additional production cost incurred as a result will have to be compensated. Table 2 summarizes the Impacts Caused by Displacement on Businesses.

Table 2: Impacts Caused by Displacement (Businesses)

Business Number	Loss of land	Loss of Business place	Loss or decrease of income	Loss of economic networks	Comments
1	yes	No	Possible	No	Loss of income may result if orders are not met due to displacement of equipment

4.0 Legal Framework

The laws regulating this matter are the Laws of Guyana, Chapter 64:04 Drainage and Irrigation.

The Drainage and Irrigation Act of 2004 provides for the establishment of the NDIA whose function is to ensure that water resources are located, evaluated, conserved and utilized for the greatest national advantage through appropriate water management strategies and water use planning. The Act provides mechanisms for ensuring that existing drainage and irrigation system and flood control and any new expansion that are done, are operated and maintained in a sustainable manner. The Act also allows for public participation in the planning, management and operation of drainage and irrigation facilities. Importantly, it should be noted that the Act provides for the acquisition of properties including land for the purpose of constructing drainage and irrigation infrastructures. Mechanisms are also outlined in the Act to compensate the affected party. Attached are the corresponding sections of the Drainage and Irrigation Act of 2004.

- The procedure to be followed for the acquisition of land for construction (Appendix 3: PART VI CONSTRUCTION, ACQUISITION AND MAINTENANCE OF WORKS)
- The provisions for compensation and legal resources to the affected persons (Appendix 4: PART VII COMPENSATION).







It is noteworthy to mention that BCL has communicated in writing their willingness to facilitate any work by the NDIA on the section of canal located within their property. Appendix 5 presents a copy of the communiqué from BCL giving their no objection to the proposed works.

5. Census survey of displaced persons and valuation of assets





The proposed civil works do not require any physical displacement of persons. It does however; require the uptake of 5.3 acres of land from BCL on which are located several assets as detailed in Table 3.

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Table 3: Census of assets to be displaced

#	Item	Photo	Description	Function
1	Log Bridge		Timber (Greenheart) Log Bridge with pile foundation, deck and wing walls (Size 45' x 28')	Transit of cranes
2	Steel Bridge		Steel beam bridge with pile foundation and RC slab approach (Size 40' x 23')	Transit of log loaders
3	Moulding Shed		RC floor, timber frame, timber roof truss and corrugated roof sheeting.	Moulding and storage of lumber
4	Saw Dust Pen		Log walls and steel pipe ducts. (Size 16' x 31' x 39'high)	Receptacle for waste
5	Equipment		Moulders, saws and ducts	Sawmill
6	Fence		Timber posts, Picket Fence with razor wire in some sections	Barrier along perimeter

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#	Item	Photo	Description
7	Guard hut #1		Two storey timber structure with wooden walls, windows, walkway and corrugated roof sheeting. Housing security personnel
8	Guard hut #2		Single floor elevated timber structure with wooden walls, stair, aluminum frame louver windows and corrugated roof sheeting. (Size 64 sq ft) Housing security personnel
9	Fuel Storage		Timber structure with elevated floor, wooden walls and pre-painted trapezoidal profile sheeting on roof. (Size 144 sq ft) Storage of fuel and lubricants
10	Utilities		Electricity poles of Wallaba logs Support electricity cables

5.1 Valuation of assets

Valuations of the assets to be displaced were completed by BCL, Rodrigues Architects Ltd, and the Government Valuation Department. The final amount to be paid for resettlement will be determined through negotiations.

6.0 Description of compensation and other resettlement assistance to be provided

Compensation will be paid to BCL for the land acquired, the assets displaced and the cost associated with equipment downtime for the resettlement period. The cost associated with land acquisition will be provided by GoG. The total negotiated cash settlement will be paid to BCL

who will be responsible for resettlement of their displaced assets within an agreed period of three (3) months.

7.0 Consultations with displaced people about acceptable alternatives

Consultations have been ongoing with BCL for a number of years and they have as early as 2010 expressed their support for the project having realized the importance of the proposed works. During engagements with BCL and other stakeholders various design alternatives were studied with the intention of minimizing adverse impacts. The design alternatives considered were:

1. Existing Alignment utilizing the existing structure which would be rehabilitated.
2. Existing Alignment with a new structure closer to the Demerara River.
3. A New Alignment with a new structure.

A detail study of three alignment options from the East Bank Public Road to the Demerara River was done by the NDIA and can be referenced in the Design Report. The Design report also sought to compare the advantages and disadvantages of pursuing any of the three options. The preferred option, option #1, was agreed to since it allowed for the most efficient conveyance of the channel because it provides a straight alignment. The other options consisted of curves in the alignment which reduces the hydraulic efficiency and causes erosion of the earthen embankments. Appendix 6 presents the comparison of the various alternatives as outlined in the Design Report.

Consultations were also held with the local government body, Caledonia Good Success Neighbourhood Democratic Council, responsible for said district in which the proposed works will be undertaken. They are in support of the proposed works and have even underscored the importance of the project and its speedy implementation. Appendix 7 presents a record of consultations held with the aforementioned stakeholders.

8. Arrangements for implementation , monitoring and procedures for grievance redress

The agency responsible for the implementation of the project is the ASDU. During project implementation, staff of the ASDU will prepare progress reports on all aspects of land acquisition, compensation and resettlement activities and operations. Technical staff from the NDIA and ASDU will be assigned to the project to oversee the implementation of the

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resettlement plan and to supervise activities carried out during preparation and implementation of the civil works. Monthly and quarterly reports will be prepared, circulated and later discussed with all stakeholders during routinely scheduled conferences. Grievances will be addressed first through discussions between the affected persons and the implementing agency, if consensus is not agreed a mediator will be appointed from an agreed list of suitable persons, and finally if parties fail to concur through the courts.

8.1 Implementation Schedule

The overall schedule for implementation is premised on BCL receiving their compensation for land, displaced assets and loss of revenue. Upon receipt BCL will immediately commence their resettlement activities for a period of not longer than three (3) months. (BCL has indicated that resettlement activities will be so coordinated that relocation of assets will be done concurrently by different contractors.) The consultant supervising the execution of the works will be procured at this point. Since only a small part of the project area is affected works in other areas can commence. Contractors will be procured at this point to execute civil works. Once the area has become clear of all encumbrances civil works will commence in this area. Table 6 presents the proposed implementation schedule for the project.

Table 6: Proposed Implementation Schedule

#	Activity	Duration	Schedule
1	Receipt of the Compensation by BCL	1 month	Sept, 2012
2	BCL relocation of assets	3 months	Oct, 2012 – Dec, 2012
3	GoG procures civil works contractor & consultants	3 months	Sept, 2012 – Nov, 2012
5	Construction of Bridge by contractor No.1	7 months	Dec, 2012 – June, 2013
6	Rehabilitation of Existing structure by contractor No 2	4 months	Dec, 2012 – March, 2013
4	Rehabilitation of Existing Channel by contractor No.3	6 months	Dec, 2012 – May, 2013

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9. Timetable and budget.

All the activities of the ARP are expected to be completed in three (3) months at a cost to be determined from negotiations between the GOG and BCL. All resettlement activities will commence after compensation has been paid. Since only a small part of the project area is affected, resettlement activities in the affected areas will be done concurrently with civil works in unaffected areas. Figure 9.0 presents the project plan and timeline for the project.

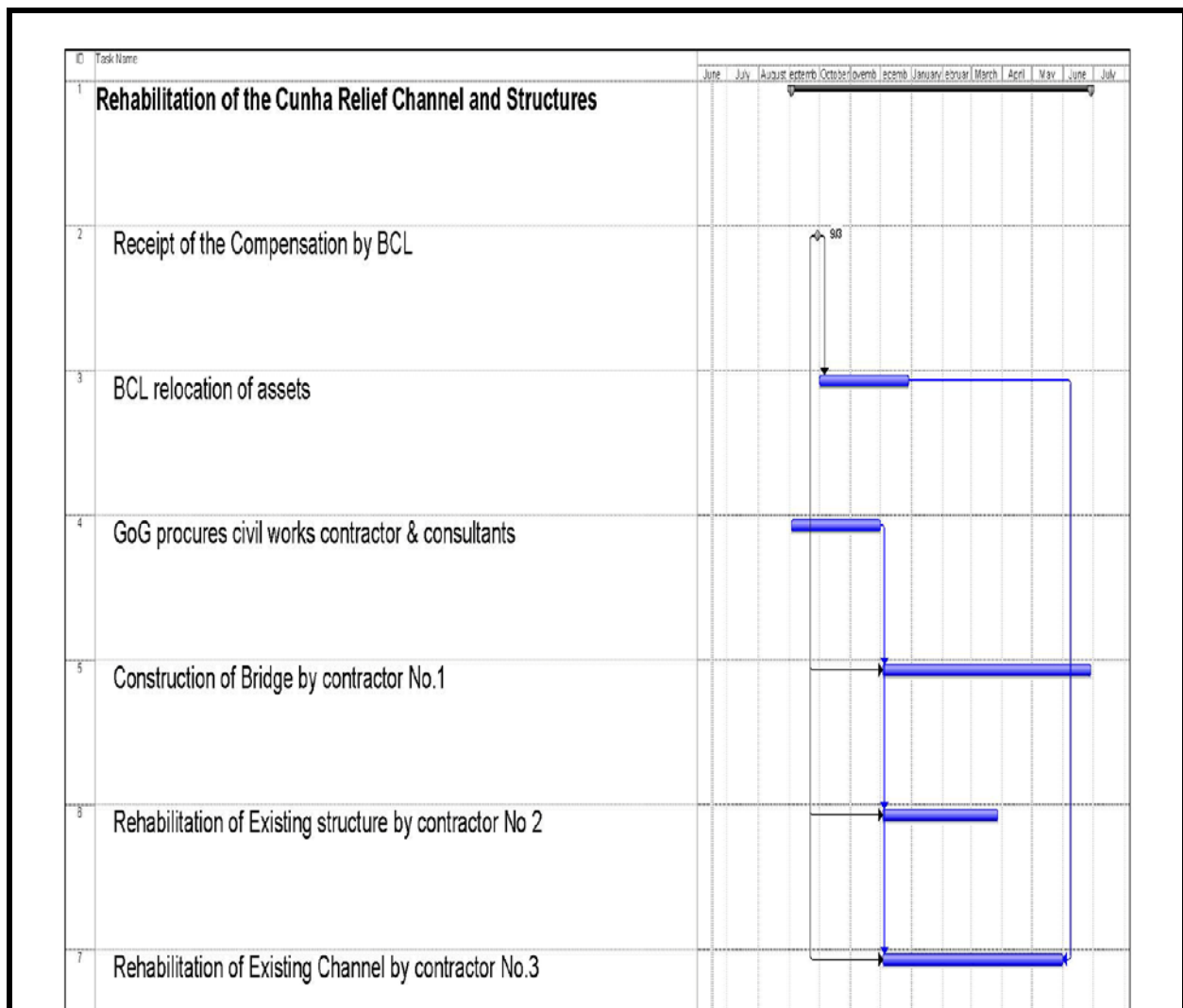


Figure 9.0: Project Time Table

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Appendix 1: Memorandum of Understanding between MoA and MoPWC

MEMORANDUM OF UNDERSTANDING (MOU)

*GOVERNING THE DESIGN, CONSTRUCTION, SUPERVISION AND MAINTENANCE OF
PUBLIC ROAD BRIDGE ACROSS THE CUNHA RELIEF CHANNEL AT LAND OF CANAAN,
EAST BANK DEMERARA, GUYANA*

(hereinafter referred to as “the Project”)

Between

**THE MINISTRY OF AGRICULTURE (MOA)
REPRESENTED BY THE PERMANENT SECRETARY, MOA
of the one part**

And

**THE MINISTRY OF PUBLIC WORKS AND COMMUNICATION (MPW&C)
REPRESENTED BY THE PERMANENT SECRETARY, MPW&C
of the other part**

- WHEREAS:** The Co-operative Republic of Guyana (GOG) has entered into an agreement with the Department for International Development (DFID) for the receipt of a Grant to fund among other engineering works, the construction of a Public Road Bridge across the Cunha Relief Channel at Land of Canaan, East Bank Demerara
- WHEREAS:** The Grant will fund the rehabilitation of the Cunha Relief Channel and the currently defunct Cunha River Sluice to facilitate the discharge of excess water (approximately 500 cusecs) from the East Demerara Water Conservancy to the Demerara River
- WHEREAS:** The Project will be executed by the Agricultural Sector Development Unit of the MOA
- WHEREAS:** All public road bridges on the East Bank of Demerara fall under the jurisdiction of the MPW&C
- WHEREAS:** The MOA is desirous of meaningfully involving the MPW&C in the design, construction, supervision and maintenance (up to the issue of the Final Completion Certificate) of the Project
- WHEREAS:** The MOA is also desirous of handing over the ownership and maintenance of the Bridge to the MPW&C at the issue of the Final Completion Certificate for the Project

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NOW IT IS HEREBY agreed as follows:

- ARTICLE 1:** The National Drainage and Irrigation Authority (NDIA) of the MOA shall design the Bridge and send draft copies of the Drawings, Bill of Quantities and any relevant computations for the written comments of the MPW&C and the documents shall be amended accordingly.
- ARTICLE 2:** The MOA shall prepare the Tender documents and obtain the written approval of the Permanent Secretary, MPW&C.
- ARTICLE 3:** The MOA shall be responsible for the issue of invitation for bids and the evaluation of tenders
- ARTICLE 4:** The MPW&C shall participate in all statutory site meetings and its comments shall duly be reflected in the minutes of the site meeting
- ARTICLE 5:** The MPW&C will visit the site at any time and as often as it deems necessary during the construction and defects liability periods.
- ARTICLE 6:** The MOA shall obtain the MPW&C's concurrence prior to the issue of any variation order
- ARTICLE 7:** The MPW&C shall indicate its satisfaction in the completed works by signing to this effect before the issue of the partial and final completion certificates to the contractor
- ARTICLE 8:** The MPW&C shall by letter from its Permanent Secretary to the Permanent Secretary, MOA, take over the ownership of the Bridge after the issue of the final completion certificate to the contractor

THE REPRESENTATIVES OF THE MINISTRY OF AGRICULTURE AND THE MINISTRY OF PUBLIC WORKS AND COMMUNICATION HEREBY AGREE TO THIS MOU

FOR THE MINISTRY OF AGRICULTURE

Dr. Dindyal Permaul
Permanent Secretary



SIGNATURE

22/06/09

DATE

FOR THE MINISTRY OF PUBLIC WORKS AND COMMUNICATION
Mr. Balraj Balram
Permanent Secretary

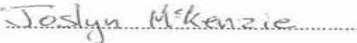


SIGNATURE

22/06/09

DATE

WITNESSES:



NAME



SIGNATURE

22/06/09

DATE



NAME



SIGNATURE

24/06/09

DATE

ABBREVIATED RESETTLEMENT PLAN

Appendix 2: No Objection on Bridge Design by MoPWC



WORKS SERVICES GROUP

MINISTRY OF PUBLIC WORKS & COMMUNICATIONS

Fort Street, Kingston, Georgetown, Guyana

E-mail: wsg@gol.net.gy

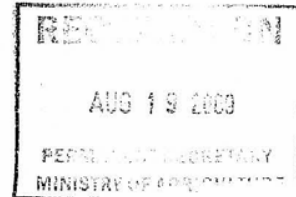
Tel: 592-226-0650

Fax: 592-225-2689

August 13, 2009

Dr. Dindyal Permaul,
Permanent Secretary,
Ministry of Agriculture,
Regent and Vlissengen Road.

Dear Mr. Permaul,



CONSTRUCTION OF CUNIA BRIDGE

With reference to your email dated August 04, 2009, please be informed that we have reviewed the design for the above-mentioned bridge and offer our no objection.

Yours truly,

WORKS SERVICES GROUP
Ministry of Public Works
and Communications
Coordinator

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Appendix 3: Part VI Construction, Acquisition and Maintenance of Works

PART VI CONSTRUCTION, ACQUISITION AND MAINTENANCE OF WORKS

Construction of
new works.

25. (1) Where it appears to the Authority to be necessary or expedient that any new works be constructed to improve the drainage and irrigation within any area, the Authority shall cause a plan and specification of such work, together with an estimate of the cost thereof, to be prepared.

(2) All documents referred to in subsection (1) shall be available for inspection by members of the public during normal working hours, for a period of fifteen days from the date upon which they were made available.

(3) Any person or body or local government organ that is likely to be affected by such work, may, within the aforesaid period of fifteen days, address a letter of protest which shall state the grounds on which the objection is based.

(4) Upon the expiration of the period of inspection, the documents referred to in subsection (1) shall be submitted to the Minister for approval.

(5) The Minister may, after taking into account public comments regarding the construction, approve or amend the construction of the new work.

(6) If the Minister approves the construction of the new work he may, by order, direct the Authority to construct the said work and notice of such decision shall be published in the Gazette and at least one daily newspaper.

(7) If the Minister for any reason considers it inexpedient that the works be constructed, the Authority shall be so informed and notice of such decision shall be published in a daily newspaper.

(8) Where the Minister approves the construction of the new work, the Authority shall, within thirty days, deposit the documents with the Registrar of Deeds duly authenticated by the signature of the Chief Executive Officer of the Authority and the Registrar of Deeds shall file the same as of records in the Deeds Registry.

(9) With effect from the time any plan referred to in subsection (8) is deposited with the Registrar of Deeds, all lands wherein or whereon (together with the adjoining areas mentioned in section 26), any works marked or delineated upon such plan are to be constructed shall become (together with the adjoining areas mentioned in section 26) the property of the Authority and shall be subject to the payment of drainage and irrigation rates.

26. (1) Save as provided by section 13(2) of the Railways Purchase Ordinance and by section 12(1) of the Sea Defence Act, and subject to subsection (2), all lands within twelve feet of the toe of any dam or within a like distance of any part of any work, power house or watch house marked or delineated on any deposited plan, and being the property of the Authority shall, with effect from the time such plan is deposited with the Registrar of Deeds, vest in the Authority free from encumbrance and shall be the property of the Authority.

Certain lands
adjacent to works to
vest in Authority.
Cap. 262
1953 Ed.
Cap. 64:02

(2) Where a fence is adjacent to a work (other than a fence) the distance of twelve feet referred to in subsection (1) shall be measured from the work:

Provided that where, at the commencement of this subsection the distance between a work (other than a fence) and an adjacent fence is greater than twelve feet, the land between the work and the fence shall nevertheless continue to vest in the Authority and shall continue to be the property of the Authority.

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Erection of fences.	<p>27. After the commencement of this Act no fence shall be erected at a distance greater than twelve feet from an adjacent work other than a fence).</p>
Right to enter opposition to apply to compensation only.	<p>28. (1) Where any plan is deposited with the Registrar of Deeds under section 25, any person who would have a right to oppose if transport of the land referred to in section 25 were about to be passed by the owner thereof shall have the same right to enter opposition to the registration but opposition shall be deemed to apply only to the payment of the compensation to the parties interested.</p> <p>(2) When the matters alleged in the opposition are disputed by any of the persons claiming the compensation or any part thereof, the person so claiming may enter a defence to the opposition and thereafter the proceedings shall continue as in ordinary opposition suits; and the court shall have full power to make any order in relation to the opposition suit both as to granting time or otherwise appearing to the court to be necessary in order to have the questions at issue between the parties determined.</p>
Powers of Authority in connection with construction of works.	<p>29. (1) When the Authority has deposited the plan for the construction of new works with the Registrar of Deeds, the directors and the employees or agents of the Authority, together with such animals, vehicles and boats as may reasonably be required, shall be entitled at all times to enter upon and pass over any part of such area for the purpose of constructing the works authorised in respect of the area described in the plan.</p> <p>(2) For the purposes of the construction of any work the Authority may take and remove earth or other materials from any where:</p> <p>Provided that earth or materials shall not be taken from any cultivated land or cultivated pasture or from any improved land if obtainable elsewhere in the nearby area and such activity is in compliance with the requirements of section 11 of the Environmental Protection Act 1996.</p>
No.11 of 1996.	
Special powers in case of threatened flood.	<p>30. (1) If at any time it appears to the Authority that there is an imminent danger of the lands, or any part of the lands, within any area being flooded, the Authority shall forthwith report that fact to the Minister.</p> <p>(2) The Minister may, in considering the report made under the preceding subsection, direct the Authority to take such action or construct or erect such works as may in the opinion of the Authority be necessary to avert the threatened flood or to mitigate the results should such flooding occur.</p> <p>(3) For the purposes of complying with the order made under this section, directors and employees of the Authority, together with animals, vehicles and boats may enter, or be taken upon any land to dig any trench, drain or canal therein and may construct or erect any work thereon.</p> <p>(4) As soon as conveniently possible after the completion of any work constructed or erected under this section, the Authority shall cause plans to be prepared in respect of any lands upon which such work has been conducted and shall submit the said plans to the Minister.</p>

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(5) Upon receipt of any plan submitted under subsection (4), the Minister may, by order, direct that the lands marked or delineated on the said plan shall vest in the Authority.

(6) The Authority shall forthwith deposit with the Registrar of Deeds a copy of such plan duly authenticated by the Chief Executive Officer and the Registrar shall file the same as of record in the Deeds Registry and shall make such annotations on the record as may be necessary.

(7) With effect from the time any such plan is deposited with the Registrar of Deeds under subsection (6) all lands wherein or whereon any works marked or delineated upon such plan are constructed together with the adjoining areas referred to in section 26 shall forthwith vest in the Authority and shall be the property of the Authority.

31. (1) Where the Authority considers it desirable that any work not constructed and maintained by the Authority shall vest in and shall become the property of the Authority on the ground that such work is required by the Authority for the purposes of drainage and irrigation, the Authority shall cause plans to be prepared on which such work is marked or delineated.

Acquisition of works.

(2) The Authority shall cause one copy of the plan to be deposited in the office of the concerned regional democratic council.

(3) Section 26 shall *mutatis mutandis* apply to procedure under this section.

(4) If the Minister approves that the work shall vest in and become the property of the Authority, he may by order direct that the work shall vest in and become the property of the Authority free from encumbrance.

(5) If the Minister for any reason considers it expedient that the work shall vest in and become the property of the Authority, the Authority shall be so informed.

32. (1) The Authority shall cause plans to be prepared on which are marked or delineated all drainage and irrigation works which have been constructed, reconstructed or maintained out of rates collected under the Drainage and Irrigation Act or out of moneys provided by Parliament.

Existing works to vest in the Authority.
Cap. 64:02.

(2) One copy of each plan shall be authenticated by the signature of the Chief Executive Officer and shall be deposited with the Registrar of Deeds who shall file the same as of record in the Deeds Registry and shall make such annotations on the records as may be necessary.

(3) With effect from the time any such plan is deposited with the Registrar of Deeds in accordance with this section the land whereon and wherein all works marked or delineated on such plan are constructed together with the adjoining areas referred in section 26 shall forthwith vest in the Authority free from encumbrance and shall be the property of the Authority.

Power of Authority to remove and rebuild or alter certain works.

33. If in the opinion of the Authority it is reasonably necessary for the efficient construction or operation of any work that any bridge, culvert, koker, sluice, aqueduct or weir (not being the property of the Authority) be removed or altered, the Authority may remove and rebuild, or alter, as the case may be, any such structure.

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Appendix 4: Part VII Compensation

PART VII COMPENSATION	
Right to be paid compensation.	<p>34. Any person shall be entitled to compensation from the Authority in respect of such land or loss or damage as the case may be, who –</p> <ul style="list-style-type: none">(a) is deprived of any land by reason of its becoming vested in the Authority under Part VI; or(b) suffers actual loss or damage after the commencement of this Act which is caused by the construction or acquisition of any new work or by the making of any survey under this Act.
Amount of compensation.	<p>35. The amount of compensation to be paid to any person shall be the current market value of the land acquired from, and in the case of buildings, structures and trees growing on the said land, the current replacement value or the amount of the actual loss or damage sustained by such person:</p> <p>Provided that in any case where it is possible to remove any structure, plant or machinery from any land and to re-erect it elsewhere the amount of compensation to be paid in respect of such structure, plant or machinery may, at the discretion of the Authority, be the actual cost of dismantling, removing and re-erecting the same at current prices.</p>
Right of claimant to require Authority to acquire whole estate in certain cases.	<p>36. In any case where the value of a portion of an estate which becomes vested in the Authority under this Act –</p> <ul style="list-style-type: none">(a) exceeds two-thirds of the value of the whole estate; and(b) in the circumstances of the case, the portion not acquired by the Authority cannot be beneficially occupied, <p>the person claiming compensation may require the Authority to acquire and pay compensation in respect of the whole estate.</p>
Power of magistrate to assess compensation.	<p>37. (1) When the amount to be paid as compensation under this Part cannot be agreed upon by the Authority and the person claiming compensation, such person may lodge a complaint in the magistrate's court claiming compensation from the Authority and the magistrate shall assess the amount of compensation to be paid in accordance with this Part.</p>
	<p>38. If either the Authority or the person claiming compensation is dissatisfied with the decision of the magistrate under the last preceding section, an appeal may be made by the dissatisfied party in the manner, and subject to the conditions provided by the Summary Jurisdiction (Appeals) Act in regard to civil cases.</p>
	<p>39. Save where the context otherwise requires, in this Part the expression "land" includes all buildings and structures erected on such land and anything growing thereon.</p>

Right of appeal from decision of magistrate.

Cap. 3:04.

Interpretation.

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Appendix 5: No Objection by BCL on Canal realignment



BARAMA COMPANY LIMITED

Plywood & Sawn Lumber Complex
Land of Canaan, East Bank Demerara, Guyana South America.
Tel.: 592-225-4555; Fax-Mkt: 592-266-5633; Accts: 592-266-5634; Procurement: 592-266-5635
Website: www.baramaguyana.com

P.O. Box 10480
Georgetown,
Guyana

March 18, 2010

Dr. Dindyal Permaul,
Permanent Secretary
Ministry of Agriculture
Regent and Vlissengen Road
Georgetown

Reference: No Objection for Rehabilitation of the Cunha Canal

Dear Dr. Permaul,

With reference to the subject at caption, we hereby inform you that we have reviewed the plans for the rehabilitation of the Cunha Canal and therefore issue our No Objection to the proposed alignment for the Canal which we recognize as pivotal for the drainage of the East Demerara Water Conservancy (EDWC).

We are cognizant that this would involve the relocation of infrastructures inclusive of a building. This will be facilitated by the Ministry of Agriculture and our Company. We are confident that there will be no serious disruption to our operations once properly coordinated.

Therefore, our Company commits to cooperate with your Ministry to ensure an efficient project implementation.

All for your information and guidance.

Best regards,

Peter Ho

CEO

"Concern for People, Environment & Quality"

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Appendix 6: Design Alternatives

OPTION 1

EXISTING ALIGNMENT REACTIVATED AND THE EXISTING STRUCTURE REHABILITATED:

Option 1 (as shown in appendix) reactivates the existing relief channel along with the existing sluice.

Consideration:

Pro:

- Hydraulically this alignment is more feasible allowing for a straight relief channel allow maximum discharge capacity of the channels cross section
- This alignment would utilize the existing sluice which will be rehabilitated and would save on construction time and complications.
- This option will have no effects on the company's wharf facilities
- There will be no disruption to the log storage area.
- None of the company's access roads will be troubled.

Cons:

- As shown in the Appendix, Sawmill #3 on Barama Company Limited would need relocating at a cost.
- Two internal bridges in Barama Company compound will have to be reconstructed at a cost.
- The company's operations of Sawmill #3 will be temporary disrupted.
- An additional dust trap for Sawmill #3 will have to be relocated and modified.

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OPTION 2

EXISTING ALIGNMENT AND CONSTRUCTION OF A NEW STRUCTURE:

Option 2 is based on reactivating the old alignment which is essentially a straight alignment and the construction of a new sluice.

Consideration:

Pros:

- A straight alignment will maintain the hydraulic property and stability of the channel.
- The construction of a new sluice will reduce the length of the outlet, thus reducing siltation and maintenance cost.
- The new sluice being placed closer to the discharge end of the channel will allow for minimum protection of the channel's embankment.

Cons:

- Maintaining a straight alignment will see sections of Barama's infrastructure falling within channel's way leave limits. This will also temporarily disrupt part of Barama operations.
- The cost for the construction of a new sluice will be significantly greater than the cost for rehabilitating the defunct sluice.

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OPTION 3

NEW ALIGNMENT AND CONSTRUCTION OF A NEW STRUCTURE:

Option 3 involves rerouting the channel away from Barama's main infrastructure and the construction of a new sluice.

Consideration:

Pros:

1. Lower cost for the project since Barama's main infrastructure will fall outside the channel's way leave limits. Sections of the access road at the log site will have to be rebuilt.
2. The construction of a new sluice will reduce the length of the outlet, thus reducing siltation and maintenance cost.
3. The new sluice being placed closer to the discharge end of the channel will allow for minimum protection of the channel's embankment.

Cons:

1. A smooth curve is proposed with a good radius of curvature. Due to the unpredictability of clay soil, the effects of the curve with respect to the erosion of the banks are unknown.
2. Rerouting and construction of a new road at the log site will have to be built done.

The cost for the construction of a new sluice will be significantly greater than the cost for rehabilitating the defunct sluice.

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Appendix 7: Record of Consultations

First Meeting/Consultation/Visit – Agricultural Sector Development Unit (ASDU)

Date:	November 23, 2009
Representatives:	<p>EMC Mr. Khalid Alladin – Projects Manager</p> <p>ASDU Mr. Joslyn McKenzie – Project Coordinator Mr. Frederick Flatts – Project Engineer</p>
Venue:	ASDU Office, Ministry of Agriculture Building
Objectives:	The objective of this first meeting/consultation was for EMC to gain an in-depth understanding of the project and collect any available background data.
Discussions:	<p>The meeting commenced at 13:30 hrs and the EMC representative outlined the purpose of the meeting. After this the representatives from ASDU proceeded to provide a background to the project and the details regarding the activities to be undertaken. Several pieces of information were provided by ASDU to EMC at this meeting. These include:</p> <ul style="list-style-type: none"> ▪ A Project Document ▪ Designs for the Bridge and Sluice ▪ Cross Sections of the Canal ▪ No Objection Letter from Ministry of Public Works and Communications regarding the construction of the bridge ▪ No Objection Letter from Barama Company Limited (BCL) regarding the realignment of the Canal through their property <p>At the meeting it was indicated to ASDU that a site visit was necessary to gather a full understanding of the project. ASDU agreed to organize an initial site visit for November 26, 2009.</p>
Next Steps:	ASDU to organize initial site visit to the project area.

Second Meeting/Consultation/Visit - ASDU and National Drainage and Irrigation Authority (NDIA)

Date:	November 26, 2009
Representatives:	<p>EMC Mr. Khalid Alladin – Projects Manager</p> <p>ASDU Mr. Joslyn McKenzie – Project Coordinator Mr. Frederick Flatts – Project Engineer</p> <p>NDIA Mr. Lionel Wordsworth – Chief Executive Officer</p>

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Venue:	Project area – Land of Canaan
Objectives:	The objective of this initial visit was for EMC to have an understanding of how the project fits on the ground and to determine potential impacts and areas that would be affected.
Discussions:	<p>The visit commenced at 13:00 hrs and was concentrated on the main area to be influenced/affected by the project activities. On the site the ASDU and NDIA personnel provided:</p> <ul style="list-style-type: none"> ▪ A general overview of the function and alignment of the existing canal. The following areas were also visit: <ul style="list-style-type: none"> ○ The diverted canal – This diversion runs parallel along the East Bank Demerara Public Road and is cleared of vegetation. ○ The current sluice – This sluice is located between Sara Johanna and Land of Canaan and serves to control the discharge of water from the Canal as well as prevents water from the Demerara River entering the Canal. It was indicated that this sluice is not fully operational. ○ The current discharge channel to the Demerara River. This channel was very narrow, there were encroachment on both sides and it was clogged with vegetation. ▪ A general overview of the proposed project and the activities to be undertaken. The following areas were also visited: <ul style="list-style-type: none"> ○ The site for the construction of the bridge on the Land of Canaan Public Road - At this site the areas for stockpiling of construction materials and waste were identified. The area for the construction of the temporary bypass for vehicular traffic was also identified. ○ The old canal alignment between the Public Road and the BCL Compound – This old alignment will be rehabilitated to facilitate the re-routing of the Canal. The current situation of the canal was observed, especially regarding the presence of vegetation which will have to be removed. It was also determined that a fence on the southern boundary of BCL Compound running parallel to this alignment will have to be relocated further away to facilitate construction activities and the embankment of the canal. ○ The old sluice – this sluice will be rehabilitated to serve as the control sluice for the Canal. The condition of the sluice was observed. It was pointed out that the structure of the sluice is in good condition and as such there is no need to construct a new sluice. From the sluice the likely alignment of the Canal through the BCL Compound was observed. However, a visit within the Compound was not possible at the time. ASDU/NDIA has agreed to arrange a visit to this area. <p>EMC representative indicated to the ASDU Personnel that visits to the entire alignment of the Canal and within the BCL Compound were necessary. ASDU committed to organize these visits.</p>
Next Steps:	ASDU to organize visits within BCL Compound and along the alignment of the Canal.

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Sixth Meeting/Consultation/Visit – Caledonia – Good Success Neighbourhood Democratic Council (NDC)

Date:	December 15, 2009
Representatives:	<p>EMC Mr. Khalid Alladin – Projects Manager</p> <p>ASDU Mr. Frederick Flatts – Project Engineer</p> <p>NDC Mr. Dwarka Nauth – Chairman Mr. Ragunandan Singh – Overseer Mr. Thomas Munroe - Councillor</p>
Venue:	NDC Office, Craig, East Bank Demerara
Objectives:	The objective of this meeting was to solicit the views and concerns of the NDC regarding the Project since the Project is located within this NDC District and may have implications for Drainage and Flooding.
Discussions:	<p>The meeting commenced at 15:30 hrs and a background of the Project was presented by the ASDU to the NDC. The EMC representative then outlined the purpose of the meeting indicated that EMC would like to have an indication of the concerns of the NDC regarding the Project so that these concerns can be addressed in the Environmental Assessment currently being conducted.</p> <p>The NDC indicated that they are aware of the Project and was previously consulted in the planning stage. They have also indicated that they are very supportive of the project since it would allow for the realignment of the Cunha Canal. The NDC indicated that it was against the diversion of the Canal in the first place since there was a possibility that the flow of water will be affected. The NDC is also of the view that a significant amount of water can be drained from the East Demerara Water Conservancy through the East Bank area. However, for this to be possible, some work will have to be done within the Conservancy to allow more water to flow to that section.</p> <p>The NDC indicated that they do not foresee any long term potential impacts of the project on the environment, but some impacts would occur during the construction phase and these should be mitigated.</p>
Next Steps:	The NDC has indicated that it will send a correspondence to ASDU indicating its support for the Project. ASDU has agreed to share a copy of the letter with EMC.

Seventh Meeting/Consultation/Visit – BCL

Date:	January 28, 2010
Representatives:	<p>EMC Mr. Khalid Alladin – Projects Manager</p> <p>ASDU</p>

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	<p>Mr. Joslyn McKenzie – Project Coordinator Mr. Frederick Flatts – Project Engineer</p> <p>NDIA Mr. Kelvin Thorn – Engineer Mr. O Chandan – Corporate Secretary</p> <p>Barama Company Limited Mr. Mahendra Budhram – Assistant Forest Planning Manager Mr. Shameer Ali – Engineer</p>
Venue:	BCL Boardroom - Land of Canaan
Objectives:	The objective of meeting/visit was to present the proposed alignment of the canal, including the areas within BCL Operation which would be affected.
Discussions:	<p>The meeting commenced at 14:30 hrs in the Boardroom of the Company. The objective of the meeting was outlined by the ASDU who also presented a map to the Company outlined the alignment of the Canal and the structures that would be affected.</p> <p>It was indicated that the main building to be affected would be the Secondary Processing Shed. This is a large shed that house several pieces of equipment. Other areas to be affected include a fence on the southern boundary of the compound, a guard hut and a generator shed. Two (2) bridges that link the Company's log pond with the rest of the operation will also be affected.</p> <p>After this presentation, the Company queried whether a diversion of the Canal after the sluice to avoid the Secondary Processing Shed was considered. ASDU responded by indicating that this option was considered, but not agreed upon for the following reasons:</p> <ul style="list-style-type: none"> • The diversion would result in a loss of energy since the water would have to flow through a sluice then a turn. • Since there will be a heavy flow of water during the rainy season there is the possibility of erosion at the turn, especially since the material in that area is loose, consisting mainly of wood waste. • A diversion will still pass through the Company's log pond, thus disrupting operations. <p>Given the above response BCL outlined the following concerns.</p> <ul style="list-style-type: none"> • The Secondary Processing Shed is an integral part of the Company's operation, housing several pieces of equipment. Relocation of this shed would be costly, since a new shed will have to be constructed and all the equipment relocated. • The Company supplies external markets with products from this operation. The relocation activities will disrupt this operation, resulting in downtime and affecting the Company's ability to fulfill its market. The disruption will also result in a loss of revenue to the Company during the relocation period. • A number of employees will be affected by this disruption. The Company indicated that it will have to continue paying a salary to these workers during the period of disruption. • The Company requested that the metal bridge over the existing

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	<p>Canal be maintained since it is in good condition, and also, the removal of both bridges will severely affect the Company's operation. It should be noted that after the meeting the bridge was visited and examined to determine a way forward. Measurements were also taken. Further analysis of this is required.</p> <ul style="list-style-type: none">• The Company indicated that it can handle the other areas to be affected and the relocation activities. <p>In this regard the Company requested:</p> <ul style="list-style-type: none">• Some more time to study the proposed canal effects on its operation and to discuss with senior officials of the Company.• Some form of compensations/assistance be provided by the Government to assist with the relocation and disruption. <p>Given this request, the meeting agreed that:</p> <ul style="list-style-type: none">• An official response be submitted by the Company to the Ministry of Agriculture by February 01, 2010.• The response would outline the estimated cost for relocation and disruption of activities.
Next Steps:	BCL to submit official response to the Ministry of Agriculture by February 01, 2010.

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A meeting was held on the 27th February 2012, at Barama Company Limited boardroom at land of Canaan where the following parties were present:

- Mohindra Chand – Head, Corporate Affairs and Forest Planning (Barama Company Limited)
- Shameer Ali – Manager Project and Safety department (Barama Company Limited)
- Feddy Flatts – Senior Engineer Agriculture Development Sector Unit (Ministry of Agriculture)
- Kelvin Thorne -Engineer Agriculture Development Sector Unit (Ministry of Agriculture)
- Dave Hicks – Senior Engineer National Drainage and Irrigation Authority (Ministry of Agriculture)
- Rafael Gravesande – Junior Engineer National Drainage and Irrigation Authority (Ministry of Agriculture)

From the meeting both parties discuss the possible rehabilitation of the Cunha Relief channel and the effects it would have on the company. From the discussions three (3) viable options were examined:

1. Existing Alignment utilizing the existing structure which would be rehabilitated.
2. Existing Alignment with a new structure closer to the Demerara River.
3. A New Alignment with a new structure.