



Operation Number: **BA-L1015**
Year- PMR Cycle: **Second period Jan-Dec 2014**
Last Update: **4/20/2015**
PMR Validation Stage: **Validated by Representative**

Chief of Operations validation date: **04/21/2015**
Division Chief validation date: **04/24/2015**
Country Representative validation date: **04/28/2015**

Inter-American Development Bank - IDB
Office of Strategic Planning and Development Effectiveness

Operation Profile

Basic Data

Operation name:	Water and Sanitation Systems Upgrade	Loan Number:	2255/OC-BA
Executing Agency (EA):	BARBADOS WATER AUTHORITY		
Team Leader:	Mellinger,Yvon	Sector/Subsector:	AS
Operation Type:	Loan Operation	Overall Stage:	Disbursing (From eligibility until all the loans are closed).
Lending Instrument:	Investment Loan	Country:	BARBADOS
Borrower:	BARBADOS	Convergence related Operation(s):	

Total Cost and Source

	Original IDB	Current Active IDB	Local Counterpart	Co-Financing/Country	Total operation cost - Original Estimate
BA-L1015	\$50,000,000.00	\$43,200,000.00	\$3,000,000.00	\$0.00	\$53,000,000.00

Available Funds (US\$)

	Current IDB	Disb. Amount to Date	% Disbursed	Undisbursed Balance
BA-L1015	\$43,200,000.00	\$33,426,014.40	77.38%	\$9,773,985.60

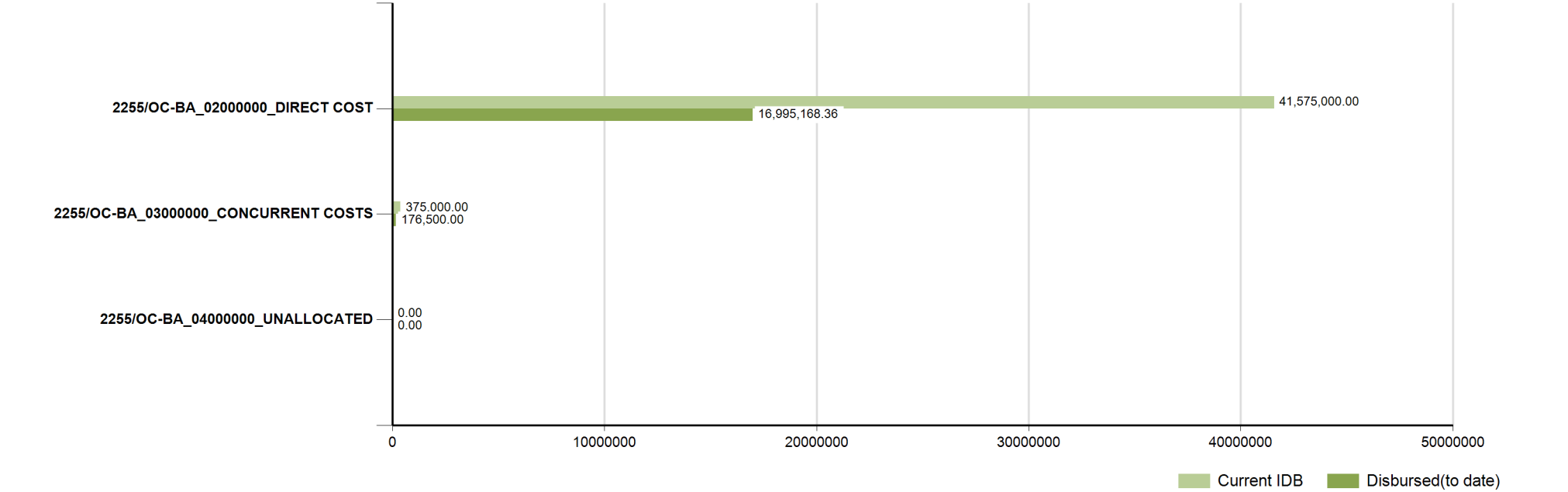
Environmental and Social Safeguards

Main Operation	
Impacts Category:	B
Safeguard Performance Rating:	
Safeguard Performance Rating - Rationale:	

Reformulation Information

Main Operation	
Was/Were the objective(s) of this operation reformulated?	NO
Date of approval:	

Expense Categories by Loan Contract (cumulative values)



Results Matrix


Impacts

Impact:	0 Rehabilitation of Potable Water Supply to support sustainability of the service						
Observation:	Essentially through NRW activities						
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations	EOP
0.0 N# of Production Meters replaced		Meters	0.00	2011	Reports from PEU.		P
							P(a) 75.00
							A 0.00
0.1 NRW Program Implemented (Completion of relevant procurement).		Program	0.00	2011	Reports from the PEU / BWA		P
							P(a) 1.00
							A 0.00

 RF - RF Indicator
  SI - Sector Indicator
  CI - Country Indicator
  PG - Pro-Gender
  PE - Pro-Ethnicity

Outcomes

Outcome:	1 Sustainable water and wastewater utility services are provided by the BWA													
Observation:														
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations	2010	2011	2012	2013	2014	2015	2016	EOP
1.1 Employees per 1000 connections		employees	7.80	2009	Inspection visits and progress reports	On track	P							7.20
							P(a)	7.80	7.80	7.60	36.40	7.20	7.20	7.20
							A			7.60	7.50	7.20		
1.2 Customers qualifying BWA's services as good or very good		%	70.00	2012	Survey results, Inspection visits and progress reports	On track	P							76.00
							P(a)			30.00	50.00	60.00	70.00	76.00
							A			0.00	70.00	70.00		
1.3 Earnings before interest, taxes, depreciation and amortization (EBITDA)/Total operating revenues		%	0.00	2009	Inspection visits and progress reports	Highly improved. To be reviewed in upcoming mission	P							10.00
							P(a)		0.00	3.00	6.00	10.00	10.00	10.00
							A			21.00	24.00	20.00		
1.4 Non-revenue water (NRW)		%	49.00	2009	Inspection visits and progress reports	Works for reduction of NRW not yet started; preparation for these works is in progress.	P							47.00
							P(a)	49.00	49.00	49.00	47.00	45.00	42.00	39.00
							A			49.00	49.00	49.00		

1.6 Water turbidity (percentage of non-compliant turbidity samples in a month) at Bowmanston Well		%	40.00	2009	Inspection visits and progress reports	TBD; dependent on assessment and rehabilitation works on Bowmanston Well, which is in progress.	P								10.00
							P(a)	40.00	40.00	30.00	20.00	20.00	20.00	20.00	20.00
							A			40.00	40.00	40.00			
1.7 Water disinfection (non-compliant samples in a month)		%	40.00	2009	Inspection visits and progress reports	TBD; dependent on upgrade of Chlorination system to be realized later in the project.	P								20.00
							P(a)	40.00	40.00	30.00	20.00	20.00	20.00	20.00	20.00
							A			40.00	40.00	40.00			
1.8 Continuity (customers with no service available at some hours in a month)		%	70.00	2010	Inspection visits and progress reports	TBD; dependent on improvements in equipment and operations to be realized later in the project.	P								10.00
							P(a)	70.00	70.00	60.00	50.00	40.00	40.00	30.00	30.00
							A			70.00	70.00	70.00			
1.9 Pressure (percentage of customers with water pressure below BWA standards per month, i.e. 25psi)		%	70.00	2011	Inspection visits and progress reports	TBD; dependent on improvements in equipment and operations to be realized later in the project.	P								20.00
							P(a)	70.00	70.00	60.00	50.00	35.00	35.00	20.00	20.00
							A			70.00	70.00	70.00			
1.11 Households with upgraded water supply	 RF	Households	0.00	2011	Progress reports	TBD; dependent on improvements in equipment and operations to be realized later in the project.	P								20,000.00
							P(a)		0.00	0.00	20.00	80.00	8,000.00	11,900.00	20,000.00
							A				0.00	0.00			

Outcome:	2 Improved management of Barbados' water resources													
Observation:	Activity would be financed outside the loan.													
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations	2010	2011	2012	2013	2014	2015	2016	EOP
2.0 Strategic Plan for Management of Barbados Water resources		Plan	0.00	2009	Progress Report from BWA	Strategic Plan based on WSSSP would be financed under BA-T1037	P							
						P(a)							0.00	0.00
	A													

Outputs: Annual Physical and Financial Progress

Reorganization and modernization of the BWA		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2014	EOP		2014	EOP
Barbados Water Authority corporate business plan prepared for implementation (Baselines indicators Management and operations Audit)	Plan	P	0.00	1.00	P	1,026,667.00	3,850,001.00
		P(a)	0.00	1.00	P(a)	669,000.00	390,000.00
		A	0.00	0.00	A	390,000.00	390,000.00
Information technology (IT) systems integrated	IT System	P	0.00	1.00	P	2,304,000.00	7,505,000.00
		P(a)	0.00	1.00	P(a)	2,304,000.00	6,263,000.00
		A	0.00	0.00	A	3,056,000.00	3,248,000.00
Public campaign adopted	campaign	P		1.00	P		100,000.00
		P(a)		1.00	P(a)	90,000.00	100,000.00
		A		1.00	A	17,000.00	27,000.00
Rehabilitation of potable water supply		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2014	EOP		2014	EOP
Meters replaced and installed (Only initial assessment of needs and specifications)	meter	P	32,930.00	98,800.00	P	3,254,838.00	11,148,485.00
		P(a)		0.00	P(a)		142,000.00
		A	0.00	0.00	A	82,000.00	142,000.00
NRW Program implemented - Water distribution mains replaced	km	P	45.00	123.00	P	4,379,961.00	14,720,000.00
		P(a)	10.00	49.00	P(a)	4,379,961.00	25,824,000.00
		A	0.00	0.00	A	4,831,230.00	10,632,000.00
Water facilities (power generators, pumps, Chlorination equipment, well) upgraded	facility	P	1.00	4.00	P	2,880,000.00	10,880,000.00
		P(a)	1.00	1.00	P(a)	2,880,000.00	7,433,000.00
		A	1.00	1.00	A	4,955,000.00	5,051,000.00
District/Production meters installed	meter	P		0.00	P		0.00
		P(a)		75.00	P(a)	64,000.00	761,000.00
		A	0.00	0.00	A	56,000.00	111,000.00
Wastewater treatment action plan and upgrades		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2014	EOP		2014	EOP
Wastewater treatment action plan prepared (Studies only)	Plan	P		1.00	P	1,000,000.00	1,500,000.00
		P(a)		1.00	P(a)	88,000.00	581,000.00
		A	0.00	0.00	A	391,000.00	391,000.00
South Coast emergency by-pass and odor control system improved (Studies and minor upgrades only)	System	P	1.00	1.00	P	150,000.00	1,100,000.00
		P(a)	1.00	1.00	P(a)	1,124,000.00	103,000.00
		A		0.00	A	93,000.00	103,000.00
Other Costs		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2014	EOP		2014	EOP
Project Execution Unit (Counterpart), Contingency, and Financial Charges	Cost	P			P	1,200,000.00	5,300,000.00
		P(a)			P(a)	0.00	1,399,660.00
		A			A		1,399,660.00
Other Cost					2014		Cost
Project Execution Unit (Counterpart), Contingency, and Financial Charges				P			
				P(a)	\$1,168,000.00	\$5,523,340.00	
				A	\$2,337,424.00	\$4,156,000.00	

Total Cost		2014	Total Cost
	P	\$16,195,466.00	\$56,103,486.00
	P(a)	\$12,766,961.00	\$26,368,492.00
	A	\$16,208,654.00	\$25,650,660.00

Changes to the Matrix

Section	Name	Type of Change	Reasons	Entered in the System	Agreed with Executing Agency
Output	Contract for preparation of wastewater treatment action plan (Concept Studies)	Modify Milestone name	Modification of the Name of the Output to acknowledge that only studies were implemented under the Contract.	4/20/2015	4/8/2015
Output	Purchase of Mains (Actual 49 km)	Modify Milestone name	Total mains replacement project is actually 49km - See 2.2	4/20/2015	4/8/2015
Outcome	Strategic Plan for Management of Barbados Water resources	Modify Means of Verification	Indicator was removed, but re-incorporated because of its relevance to the objective of the Program. The preparation of the Strategic Plan for the Management of Barbados water resources will be financed by an OS (BA-T1037, in preparation).	4/8/2015	4/8/2015
Outcome	Strategic Plan for Management of Barbados Water resources	Create Outcome Indicator	Indicator value was set at zero because the corresponding product will be financed outside of this Loan (See above).	4/8/2015	4/8/2015
Output	South Coast emergency by-pass and odor control system improved (Studies and minor upgrades only)	Modify Output name	Concept studies were prepared and some rehabilitation implemented.	4/8/2015	4/8/2015
Output	Wastewater treatment action plan prepared (Studies only)	Modify Output name	Studies were prepared but full Action Plan with financing mechanism was not developed.	4/8/2015	4/8/2015
Output	Meters replaced and installed (Only initial assessment of needs and specifications)	Modify Output name	This action will not be implemented under the Loan, but initial assessments were contracted (geo-referencing of meters, and definition of specifications) - which explains the costs that are accounted for.	4/8/2015	4/8/2015
Output	South Coast emergency by-pass and odor control system improved	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Wastewater treatment action plan prepared and financing plan in place	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	District/Production meters installed	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Water facilities (power generators, pumps, Chlorination equipment, well) upgraded	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	NRW Program implemented - Water distribution mains replaced	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Meters replaced and installed (Implemented: assessment)	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Public campaign adopted	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Information technology (IT) systems integrated	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Barbados Water Authority corporate business plan prepared for implementation (Baselines indicators Management and operations Audit)	Modify Means of Verification	Mean of verification was created (not modified)	4/7/2015	4/7/2015
Output	Barbados Water Authority corporate business plan prepared for implementation (Baselines indicators Management and operations Audit)	Modify Output name	This action will not be implemented in its entirety under the Loan, budget modified.	3/23/2015	3/23/2015

Output	District/Production meters installed	Modify Output name	District / Production Meters installation delayed: will be installed between 2015 and 2016. Budget modified.	3/23/2015	3/23/2015
Output	Water facilities (power generators, pumps, Chlorination equipment, well) upgraded	Modify Physical P(a) value	Result has been changed to 1 set of facilities to be upgraded - actually more than 4 initially envisaged - all installations are benefiting from some of the improvements. (I.E. Spare parts, mobile generators, ...). Budget modified.	3/23/2015	3/23/2015
Outcome	Strategic Plan for management of Barbados' water resources approved by all stakeholders	Delete Outcome Indicator	Corresponding action will not be implemented under the Loan.	3/23/2015	3/23/2015
Outcome	Financing for Wastewater Treatment Action Plan in place	Delete Outcome Indicator	Corresponding action will not be implemented under the Loan.	3/23/2015	3/23/2015
Outcome	Metering (percentage of customers billed have validated water meters less than 5 years old)	Delete Outcome Indicator	Corresponding action will not be implemented under the Loan, budget modified.	3/23/2015	3/23/2015

Please note that the Overall Stage represents the stage of the operation at the time of this report's publication, which might not necessarily match the stage of the operation during the PMR Cycle to which the report pertains.