



Operation Number: **BA-L1015**  
Year- PMR Cycle: **First period Jan-Jun 2016**  
Last Update: **10/7/2016**  
PMR Validation Stage: **Validated by Chief of Operations**

Chief of Operations validation date: **10/07/2016**  
Division Chief validation date:  
Country Representative validation date:

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:	Closed (all the Operations 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		\$53,000,000.00

Available Funds (US\$)

	Current IDB	Disb. Amount to Date	% Disbursed	Undisbursed Balance
BA-L1015	\$43,200,000.00	\$43,200,000.00	100.00%	\$0.00

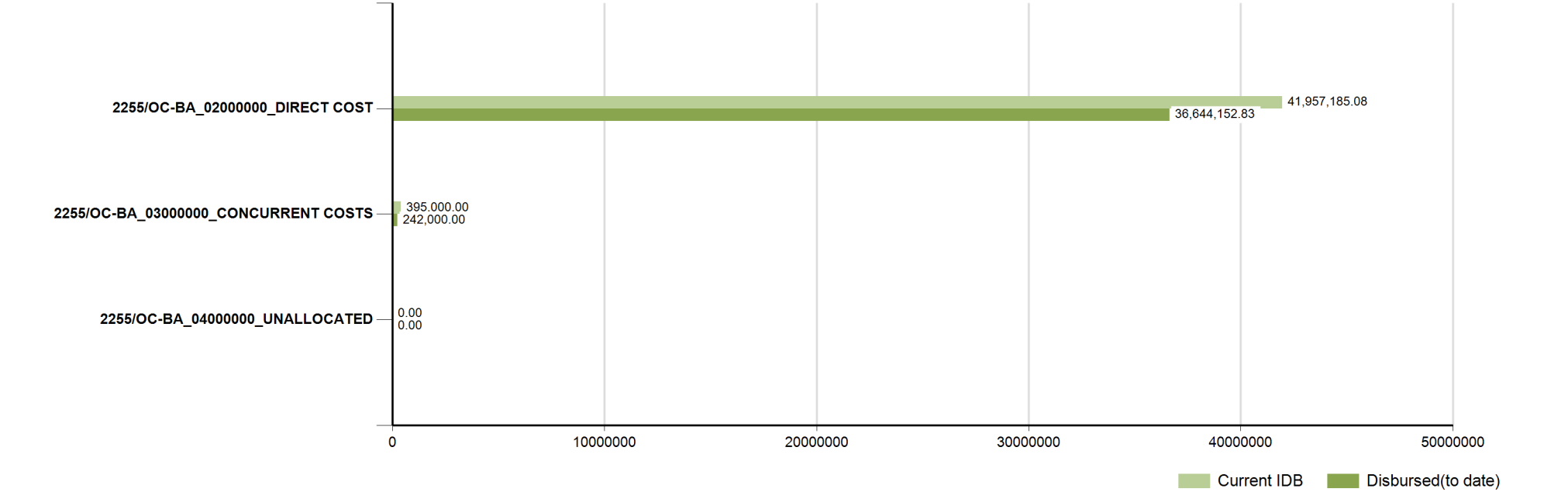
Environmental and Social Safeguards









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	2016		EOP						
0.0 N# of Production Meters replaced		Meters	0.00	2011	Reports from PEU.		P								
							P(a)			75.00					
							A	36.00	36.00						
0.1 NRW Program Implemented (Completion of relevant procurement).		Program	0.00	2011	Reports from the PEU / BWA		P								
							P(a)			1.00					
							A	1.00	1.00						
<div><div> RF - Contribution</div><div> RF - Alignment</div><div> RF - Strategic Alignment</div><div> RF - Strategic Alignment during Execution</div></div> <div><div> SI - Sector Indicator</div><div> CI - Country Indicator</div><div> PG - Pro-Gender</div><div> PE - Pro-Ethnicity</div></div>															
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	7.20
							A			7.60	7.50	7.20	7.20	7.20	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	76.00
							A			0.00	70.00	70.00	70.00	92.00	92.00
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	10.00
							A			21.00	24.00	20.00	22.00	10.00	10.00
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	39.00
							A			49.00	49.00	49.00	42.00	40.00	40.00

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; depende nt on assess ment and rehabilit ation works on Bowman ston 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	20.00	
	A								40.00	40.00	40.00	40.00	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; depende nt on upgrade of Chlirinati on 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	20.00	20.00
	A								40.00	40.00	40.00	40.00	40.00	15.00	15.00	
1.8 Continuity (customers with no service available at some hours in a month)		%	70.00	2010	Inspection visits and progress reports	TBD; depende nt on improvme nts in equipme nt and operatio ns 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	30.00	
	A								70.00	70.00	70.00	70.00	70.00	15.00	15.00	
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; depende nt on improvme nts in equipme nt and operatio ns 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	20.00	
	A								70.00	70.00	70.00	70.00	15.00	15.00		

1.11 Households with upgraded water supply		Household s (#)	0.00	2011	Progress reports	TBD; depende nt on improvme nts in equipme nt and operatio ns to be realized later in the project.	P								20,000.00
							P(a)		0.00	0.00	20.00	80.00	8,000.00	20,000.00	20,000.00
							A				0.00	0.00	0.00	11,200.00	11,200.00

Disaggregation Categories							2010	2011	2012	2013	2014	2015	2016	EOP	
Afro-descendant							P								
							P(a)								
							A						11,200.00	11,200.00	

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						0.00	0.00	

- RF - Contribution

RF - Alignment

RF - Strategic Alignment

RF - Strategic Alignment during Execution
- SI - Sector Indicator

CI - Country Indicator

PG - Pro-Gender

PE - Pro-Ethnicity

## Outputs: Annual Physical and Financial Progress

Reorganization and modernization of the BWA		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2016	EOP		2016	EOP
Barbados Water Authority corporate business plan prepared for implementation (Baselines indicators Management and operations Audit)	Plan	P		1.00	P		3,850,001.00
		P(a)	1.00	1.00	P(a)	0.00	390,000.00
		A	1.00	1.00	A		390,000.00
Information technology (IT) systems integrated	IT System	P		1.00	P		7,505,000.00
		P(a)	1.00	1.00	P(a)	1,061,000.00	6,263,000.00
		A	1.00	1.00	A	1,061,000.00	6,263,000.00
Public campaign adopted	campaign	P		1.00	P		100,000.00
		P(a)		1.00	P(a)	30,000.00	100,000.00
		A	0.00	1.00	A	30,000.00	100,000.00
Rehabilitation of potable water supply		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2016	EOP		2016	EOP
Meters replaced and installed (Only initial assessment of needs and specifications)	meter	P		98,800.00	P		11,148,485.00
		P(a)		0.00	P(a)		142,000.00
		A	0.00	0.00	A	0.00	142,000.00
NRW Program implemented - Water distribution mains replaced	km	P	5.00	123.00	P	1,049,989.00	14,720,000.00
		P(a)	8.00	49.00	P(a)	2,395,000.00	25,824,000.00
		A	8.00	49.00	A	2,395,000.00	25,824,000.00
Water facilities (power generators, pumps, Chlorination equipment, well) upgraded	facility	P		4.00	P		10,880,000.00
		P(a)		1.00	P(a)	1,320,000.00	7,433,000.00
		A	0.00	1.00	A	1,320,000.00	7,433,000.00
District/Production meters installed	meter	P		0.00	P		0.00
		P(a)	50.00	50.00	P(a)	210,000.00	761,000.00
		A	36.00	36.00	A	210,000.00	761,000.00
Wastewater treatment action plan and upgrades		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2016	EOP		2016	EOP
Wastewater treatment action plan prepared (Studies only)	Plan	P	1.00	1.00	P		1,500,000.00
		P(a)	1.00	1.00	P(a)		581,000.00
		A	1.00	1.00	A	0.00	581,000.00
South Coast emergency by-pass and odor control system improved (Studies and minor upgrades only)	System	P		1.00	P		1,100,000.00
		P(a)	1.00	1.00	P(a)	0.00	103,000.00
		A	1.00	1.00	A	0.00	103,000.00
Other Costs		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2016	EOP		2016	EOP
Project Execution Unit (Counterpart), Contingency, and Financial Charges	Cost	P			P		5,300,000.00
		P(a)			P(a)		1,399,660.00
		A			A		1,399,660.00
Other Cost					2016		Cost
Project Execution Unit (Counterpart), Contingency, and Financial Charges				P			
				P(a)	\$165,340.00	\$5,523,340.00	
				A	\$165,340.00	\$5,523,340.00	

Total Cost		2016	Total Cost
	P	\$1,049,989.00	\$56,103,486.00
	P(a)	\$5,181,340.00	\$48,520,000.00
	A	\$5,181,340.00	\$48,520,000.00

Changes to the Matrix

No information related to this operation.