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CARIBBEAN DEVELOPMENT BANK



**EXECUTIVE SUMMARY WITH MANAGEMENT RESPONSE
AND
PROJECT COMPLETION VALIDATION REPORT

SECOND WATER PROJECT
BELIZE**

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**OFFICE OF INDEPENDENT EVALUATION
NOVEMBER 2018**

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CARIBBEAN DEVELOPMENT BANK



EXECUTIVE SUMMARY

PROJECT COMPLETION VALIDATION REPORT

**SECOND WATER PROJECT
BELIZE**

NOVEMBER 2018

EXECUTIVE SUMMARY

1. In December 1997, the Caribbean Development Bank (CDB) approved a loan in the amount of USD13.83 million (mn) to the Government of Belize (GOBZ) to assist in financing the Second Water Project - Belize. This was the second project and the fifth loan provided to GOBZ, by the Caribbean Development Bank (CDB), in the Water and Sewerage sector.

2. The loan was to finance approximately 79% of the estimated project costs of \$34.95 mn (USD17.47 mn). The funds were to be utilised for: upgrading of intake works and a water treatment plant; supply and installation of a transmission main; upgrading of two re-lift pump stations; expansion of a distribution network; non-revenue water reduction measures (including the installation of new or recalibration of existing bulk flow meters); and upgrading of the computerised billing and accounting system. The GOBZ and the Water and Sewerage Authority (WASA) were to provide counterpart funding of \$0.44 mn (USD0.22 mn) and \$6.85 mn (USD3.42 mn) respectively, to meet the remaining project costs.

PROJECT OBJECTIVES

3. The objectives of the project were to:

- (a) improve the pressure and reliability of water supply to existing consumers in Belize City;
- (b) provide water in sufficient quantities to allow adequate amounts of water in storage for firefighting and other emergencies in Belize City;
- (c) reduce un-accounted for water (UFW) from an estimated 58% to 25% of water produced for the Belize City Water Supply System (BCWSS); and
- (d) expand BCWSS distribution network to include some of the areas within the city limits that are not currently served, thereby raising sanitation standards.

PROJECT BACKGROUND

4. Implementation of the project was originally undertaken by WASA. At appraisal, implementation was expected to be phased over a period of 37 months beginning in December 1997 with the engagement of engineering consultants to prepare final designs and ending December 31, 2000 with completion of the installation of a secondary pipeline.

5. The Project Completion Report (PCR) states that implementation of the Original Scope of the project was completed by May 2002, approximately 18 months behind schedule. It states that all payments to the final contractor, including the release of all holdbacks, were made in 2005 and rates the achievement of outputs as Satisfactory. The PCR states that the project paused for several years following completion of the original scope. However, GOBZ requested approval to utilise the undisbursed loan balance of approximately USD1.64 mn to assist in financing the cost of additional works related to the project. CDB approved a Revision in Scope – Additional Works in December 2008. These works were completed in August 2013.

Relevance

6. The PCR rates Relevance as Highly Satisfactory. This rating was based on the need for increased quantity, quality, pressure and reliability of water to supply the country's largest and most populous city, as well as the need for expansion of the City's water distribution network to include outlying areas which

required water supply for sustainable development. It was also based on the project's significant contribution to Belize's development strategy. The Evaluator concurs with the PCR rating of Highly Satisfactory.

Effectiveness

7. The PCR gives a rating of: (i) Satisfactory for achievement of outputs; and (ii) Highly Probable (Highly Satisfactory) for achievement of outcomes. Given that the Effectiveness rating is a simple arithmetic average of the ratings for project outputs and outcomes, this equates to a rating of Highly Satisfactory. The Evaluator also gives a rating of Highly Satisfactory but with a lower score than the PCR due to insufficient evidence to rate all categories of project outputs.

Efficiency

8. The PCR rates Efficiency as Satisfactory. It states that the original scope of works was completed within the appraised budget. The PCR states that although a significant amount of finance charges accrued during the period 2005 to 2010, the economic rate of return (ERR) exceeded Original Appraisal and Variation Paper expectations. It also states that the incremental ERR at Project completion was estimated at 17%, compared to the revised ERR of 15% calculated in 2008 when the scope of the project was revised, noting that the original ERR at appraisal was 14%. The Evaluator concurs with this rating.

SUSTAINABILITY

9. The PCR rates Sustainability as Highly Probable in view of the fact that the majority of performance outcomes and outputs were achieved albeit over a protracted time frame and were supported by capital, credit, liquidity and operational risk measures that were instituted by Belize Water Services Ltd. (BWS). The Evaluator rates Sustainability as Satisfactory.

EVALUATION CRITERIA

10. The assessment focused on the relevance, effectiveness, efficiency and sustainability of the project, as well as CDB's and Borrower's performance.

PERFORMANCE OF BORROWER AND EXECUTING AGENCY

11. The PCR rates the performance of the Borrower/Implementing Agency as Satisfactory. It states that WASA and BWS provided effective project management of the goods supply and construction works. The PCR indicates that BWS installed, tested, and commissioned the Burrell Boom transmission pipeline to acceptable standards and according to schedule.

PERFORMANCE OF THE CARIBBEAN DEVELOPMENT BANK

12. The PCR does not provide a self-assessment of CDB performance. The Evaluator rates the performance of CDB as Satisfactory based on information from CDB's Registry files and Project Supervision Reports (PSRs) which indicate, inter alia, that CDB staff provided support and assistance to BWS during project implementation which included assistance with procurement related documentation; withdrawal applications; project design under multiple contracts; and variations that were necessitated by a change in ownership structure. The Bank also prepared an additional Board of Directors' Paper to vary the scope of the project to utilise undisbursed funds to assist in financing the cost of additional works related to the Belize City Water and Sewerage Project.

OVERALL ASSESSMENT

13. The overall assessment of project performance by the Evaluator was Highly Satisfactory when measured against performance indicators, some of which were not specific and time bound. This rating was based on an arithmetic average of the total scores from separate assessments of the four core evaluation criteria: Relevance (Highly Satisfactory); Efficiency (Satisfactory); Effectiveness (Highly Satisfactory); and Sustainability (Satisfactory).

14. Details of the ratings and justification for differences between those of the PCR and Evaluator are summarised below.

SUMMARY RATINGS OF CORE EVALUATION CRITERIA AND OVERALL ASSESSMENT OF THE PROJECT

Criteria	PCR	OIE Review	Reason if any for Disagreement/Comment
Strategic Relevance	Highly Satisfactory (4)	Highly Satisfactory (4)	
Relevance			
Efficacy	Highly Satisfactory (4)	Highly Satisfactory (4)	
Effectiveness			
Cost Efficiency	Satisfactory (3)	Satisfactory (3)	
Efficiency			
Sustainability	Highly Satisfactory (4)	Satisfactory (3)	Not all project outputs and outcomes were fully achieved. The Sustainability rating relates to all planned outputs and outcomes that are listed in the Appraisal Report (AR).
Composite (Aggregate) Performance Rating	Highly Satisfactory (3.75)	Highly Satisfactory (3.50)	
Borrower & EA Performance	Satisfactory	Satisfactory	
CDB Performance	Not Rated	Satisfactory	CDB staff provided support and guidance during project implementation that included assistance to BWS with procurement related documentation; withdrawal applications; project design under multiple contracts and variations necessitated by a change in ownership structure. The Bank also prepared an additional BOD Paper to vary the scope of the project.

LESSONS

15. The PCR identifies the following lesson learnt from the project that is considered useful to inform new project design:

(i) The relatively small investment made to reduce Non Revenue Water (NRW)¹ proved to be highly effective and contributed significantly towards achieving a higher Economic Rate of Return (ERR) than anticipated at Appraisal. Amongst CDB's Borrowing Member Countries (BMCs), water utilities have very high NRW, therefore investment in NRW reduction should be considered for incorporation as a component in future CDB-funded projects.

¹ Water that is pumped or produced but is subsequently lost or unaccounted for in the system.

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MANAGEMENT RESPONSE

PROJECT COMPLETION VALIDATION REPORT

**SECOND WATER PROJECT
BELIZE**

NOVEMBER 2018

MANAGEMENT RESPONSE

The Project Competition Validation Report provides valuable perspectives on the implementation of the Second Water Project, Belize. We accept the Evaluator's Composite Performance Rating of Highly Satisfactory, which is consistent with the assessments of our team.

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PROJECT COMPLETION VALIDATION REPORT

**SECOND WATER PROJECT
BELIZE**

**OFFICE OF INDEPENDENT EVALUATION
NOVEMBER 2018**

Any designation or demarcation of, or reference to, a particular territory or geographic area in this Document is not intended to imply any opinion or judgment on the part of the Bank as to the legal or other status of any territory or area or as to the delimitation of frontiers or boundaries.

CURRENCY EQUIVALENTS

(Dollars [\$] throughout refer to Belize [BZ\$] unless otherwise stated)

BZ\$1.00 = US\$ 0.50
USD1.00 = BZ\$ 2.00

ABBREVIATIONS

BCIP	-	Belize City Infrastructure Project
BCWE	-	Belize City water Expansion
BCWSS	-	Belize City water Supply System
CDB	-	Caribbean Development Bank
CIDA	-	Canadian International Development Agency
DOE	-	Department of the Environment
EIA	-	environmental impact assessment
ERR	-	Economic Rate of Return
FY	-	Financial Year
GDP	-	Gross Domestic Product
GOBZ	-	Government of Belize
gpd	-	gallons per day
gpm	-	gallons per minute
gppd	-	gallons per person day
IDC	-	Interest during Construction
mn	-	million
MIS	-	Management Information System
MNR	-	Ministry of Natural Resources
MUSGD	-	Million US gallons per day
NEAC	-	National Environmental Appraisal Committee
ML	-	mega litres
NPV	-	Net Present Value
OCR	-	Ordinary Capital Resources
OPPM	-	Operational Policies and Procedures Manual
PAS	-	Performance Assessment System
PCR	-	Project Completion Report
PHB	-	Public Health Bureau
PSR	-	Project Supervision Report
RS	-	Revision in Scope
RWSSP	-	Rural Water Supply and Sanitation Programme
SFR	-	Special Funds Resources
SSB	-	Social Security Board
UFW	-	Unaccounted-for-Water
WASA	-	Water and Sewerage Authority
WTP	-	Water Treatment Plant

TABLE OF CONTENTS

EXECUTIVE SUMMARY MANAGEMENT RESPONSE

- 1. BASIC PROJECT DATA SHEET**
- 2. PROJECT DESCRIPTION**
 - Rationale
 - Expected Impact
 - Objectives or Expected Outcomes
 - Components/Outputs
 - Provision of Inputs
 - Implementation Arrangements
 - Identification of Risks and Mitigation Measures
- 3. EVALUATION OF DESIGN AND IMPLEMENTATION**
 - Relevance of Design and Formulation
 - Project Outputs
 - Project Costs and Disbursements, Borrower Contribution and Conformance to Schedule Implementation Arrangements, Conditions and Covenants, Procurements and Contractor Performance
 - Monitoring and Evaluation
- 4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)**
 - Relevance
 - Effectiveness
 - Efficiency
 - Sustainability
 - Performance of the Borrower and Executing Agency
 - Performance of the Caribbean Development Bank
- 5. OVERALL ASSESSMENT**
 - Lessons
- 6. COMMENTS ON PCR QUALITY**
- 7. DATA SOURCES FOR VALIDATION**
- 8. RECOMMENDATIONS FOR OIE FOLLOW-UP**

PROJECT DATA SHEET

Project Title: Second Water Project
Country: Belize
Sector: Water Supply
Loan No.: 10/SFR-OR-BZE
Borrower: Government of Belize
Implementing/Executing Agency: WASA/BWS

<u>CDB LOAN (USD'mn)</u>			
<u>Disbursements (\$mn)</u>	<u>OCR</u>	<u>SFR</u>	<u>Total</u>
Loan Amount	9.40	4.43	13.83
Disbursed	9.27	4.43	13.70
Cancelled	0.13	-	0.13
<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval (Original Loan)	1997-12-11	1997-12-11	-
Loan Agreement signed	1998-02-16	1998-03-02	(0.5)
Loan Effectiveness ²	1998-05-01	1998-05-06	(0.17)
<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date	1998-08-31	2001-01-14	(28.80)
Terminal Disbursement Date (TDD)	2001-09-30	2013-10-01	(144)
TDD Extensions (number)	-	-	-
<u>Project Cost & Financing (\$mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance</u>
CDB Loan	13.83	13.70	0.13
Counterpart (GOB/BWS)	3.64	7.66	(4.02)
Total	17.47	21.36	(3.89)
<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan (SFR)	2.50%	20 years	10 years
CDB Loan (OCR)	6.75%	15 years	5 years
<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date ³	1998-05-01	1998-05-06	(0.17)
Completion Date	2001-09-30	2013-08-06	(142.2)
Implementation Period (years)	3.5	15.25 approx.	(11.75 years)
<u>Economic Rate of Return (%)</u>			
At Appraisal	14%	17%	

² Date conditions to First Disbursement satisfied

³ Implementation begins with satisfaction of conditions precedent to first disbursement

2. PROJECT DESCRIPTION

Rationale

2.01 Belize City's water supply was sourced from intake works located approximately 27 km northwest of the city centre. Water was treated and pumped through a transmission main for distribution within the city. The system also served areas to the north of the city limits with small diameter off-takes from the transmission main making the total population being served approximately 57,000. The average rate of residential consumption in the western hemisphere ranges between 40 and 70 gallons per person per day (gppd). At a rate of 42 gppd, WASA needed to produce five million US gallons per day (MUSGD) when allowances were made for acceptable levels of UFW, emergency storage and non-residential demand. WASA's maximum production capability on BCWSS was 3.5 MUSGD. In 1996, the shortfall in production on BCWSS was therefore approximately 1.5 MUSGD. The problem was exacerbated by high levels of UFW which contributed to further shortfalls in the supply to consumers. The project proposed increasing water production to five MUSGD which, with acceptable levels of UFW, would be adequate to meet the needs of the city's projected population of 68,700 in the year 2013.

2.02 As a result of the shortage of supply in the city, WASA's existing operational practices included partial closures of valves on the distribution system in order to build up storage in the city's reservoirs. An adequate volume of stored water was essential for fire-fighting purposes and other emergencies such as maintenance of a minimal supply during power outages. These operational practices resulted in low system pressures with only partial attainment of the water storage requirements.

2.03 UFW was estimated at 58% of water produced on BCWSS and 56% of WASA's entire production in its nine water districts. While the contributing factors to UFW on BCWSS were estimated with a fair degree of accuracy, UFW estimates in the other districts were sometimes unreliable as production flow meters were either improperly calibrated or non-existent. Where they existed, high levels of UFW needed to be reduced in order to conserve the resource, increase system pressures, reduce uneven distribution and generate additional revenue. Where the estimates of UFW were unreliable, because of questionable production measurement, accuracy of flow measurement had to be ensured by installation of new or repair of existing production flow meters.

2.04 As Belize City continued to expand at a steady rate, land sales and distribution by GOBZ in areas bordering the Western Highway, placed further demand on the water supply system. Phased residential expansion along the Northern Highway also contributed to increased demand. Between 1996 and 1997, WASA had to deny requests for connections to the system in these areas. It therefore became necessary to expand the distribution network to serve consumers in the developing areas of the city.

Expected Impact

2.05 The project was expected to contribute to Belize's productive capacity and social well-being by increasing the country's health and sanitation standards while reducing the risk of economic loss to residents of Belize City.

Objectives or Expected Outcomes

2.06 The objectives of the project were to:

- (a) improve the pressure and reliability of water supply to existing consumers in Belize City;

- (b) provide water in sufficient quantities to allow adequate amounts of water in storage for firefighting and other emergencies in Belize City;
- (c) reduce UFW from an estimated 58% to 25% of water produced for BCWSS; and
- (d) expand BCWSS distribution network to include some of the areas within the city limits that are not currently served, thereby raising sanitation standards.

Components/ Outputs

2.07 The components of the Project were:

- (a) Intake Works and Water Treatment Plant at Double Run producing 6 MUSGD by September 30, 2000;
- (b) 25 km of new 600 mm dia. Transmission main between Double Run and Belize City by February 28, 2000;
- (c) Additional low head relift pumps capable of increasing water distribution by 2 MUSGD installed in existing pump stations by July 15, 2000;
- (d) Additional 7,500 mm of primary distribution and 25,000 m of secondary distribution pipelines by December 31, 2000;
- (e) 4,000 replaced water meter registers and two equipped dedicated leak detection crews by December 31, 2000; and
- (f) Upgraded computerised accounting and billing system by June 30, 1999.

Provision of Inputs

2.08 In December 1997, CDB approved a loan in the amount of USD13.83 million (mn) to GOBZ to assist in financing the Second Water Project - Belize. This project was the second project and the fifth loan provided to GOBZ, by CDB, in the Water and Sewerage sector. A summary of previous CDB-funded loans is presented in Table 1.

TABLE 1: PREVIOUS CDB-FUNDED PROJECTS

No.	Approval Year	Funding Mode	Project Title	Total Approved (USD mn)
1	1989	Contingently Recoverable TA Loan	Feasibility Study for Provision of Water and Sewerage Facilities to Town of San Pedro.	0.11
2	1990	Investment Loan	Construction of Water Supply System and Sewerage Collection, Treatment and Disposal System in San Pedro.	6.50
3	1992	Contingently Recoverable TA Loan	Pre-Investment Study for BCWSS Expansion.	0.40
4	1994	Additional Investment Loan	Further Construction of Water Supply System and Sewerage Collection, Treatment and Disposal System in San Pedro.	1.90

2.09 As shown in Table 1, CDB's BOD approved a contingently recoverable loan to GOBZ in July 1992 to finance a pre-investment study for the BCWSS Expansion. The study was completed in July 1995 and the recommendations of the water supply section of the study gave rise to this project.

2.10 The CDB loan was to finance approximately 79% of the estimated project costs of \$34.95 mn (USD17.47 mn). The loan funds were to be utilised for: upgrading of intake works and a water treatment plant; supply and installation of a transmission main; upgrading of two re-lift pump stations; expansion of a distribution network; non-revenue water reduction measures (including the installation of new or recalibration of existing bulk flow meters); and upgrading of the computerised billing and accounting system. GOBZ and WASA were to provide counterpart funding of \$0.44 (USD0.22) and \$6.85 (USD3.42), to meet the remaining project costs. A summary of the original project costs and financing is shown in Table 2.

**TABLE 2: SUMMARY OF PROJECT COSTS AND FINANCING
(\$'000)**

Item	Total	OCR	SDF(U)	SDF(O)	GOBZ	WASA
Land	10					10
Water Treatment Plant	8,900	8,900				
Supply Transmission Main	6,012		6,012			
Install Transmission Main	3,113	3,113				
Pump Stations	454	454				
Primary Distribution	1,250			1,250		
Secondary Distribution	3,000					3,000
Loss Reduction	570	294				276
Project Management	500					500
Engineering Consultancy	1,753					1,753
Accounting System Upgrade	391			391		
Base Costs	25,954	12,761	6,012	1,642		5,539
Physical Contingency	4,418	2,850	601	188		780
Price Contingency	2,480	1,531	281	138		530
Total Project Cost	32,851	17,142	6,894	1,967		6,849
Interest During Construction (IDC) and Commitment Fee	2,094	1,655			439	
Total Financing required	34,945	18,797	6,894	1,967	439	6,849
USD Equivalent	17,473	9,399	3,447	984	219	3,424

Implementation Arrangements

2.11 Implementation of the project was originally undertaken by WASA. At appraisal, implementation was expected to be phased over a period of 37 months beginning in December 1997 with the engagement of engineering consultants to prepare final designs and ending December 31, 2000 with completion of the installation of the secondary pipeline.

2.12 The PSR of 2002 indicates that the executing agency changed from WASA (public sector) to BWSL (private sector) while the project was being implemented. The PCR states that WASA and BWSL provided effective project management of the goods, supply and construction works, and that BWSL installed, tested and commissioned the Burrell Boom transmission pipeline to acceptable standards and according to schedule.

Identification of Risks and Mitigation Measures

2.13 A major risk identified at appraisal relates to the choice of pipe material for the 600 mm diameter transmission main. Areas in and around Belize City are characterised by low-lying lands and a high water table. As a result of this and the proximity to the ocean, the environment is very corrosive. Metal-based pipelines are therefore susceptible to corrosion if some reliable form of cathodic protection is not included in their installation. The project sought to mitigate the risk of reduction in the service life of the new transmission main by mandating the use of non-metal pipe material and making this a condition of the loan.

2.14 Another risk identified at appraisal was the possible negative impact of tariff increases on WASA's sales of water and its revenue generated from these sales. To mitigate this risk, the project proposed that tariff increases would be imposed at a level that would be sufficient to ensure that the utility's return on rate-base improved to 4% by Financial Year (FY) 2001. It was expected that tariff increase would translate to an average additional cost for water of \$1.93 per thousand gallons. However, while this may have initially resulted in resource conservation practices by a few residential consumers in an effort to keep water bills close to pre-tariff increase levels, the increase was sufficiently low that this practice was not expected to be widespread or sustained.

2.15 It was recognised that some of the existing distribution pipelines would develop leaks and/or breaks as a result of higher system pressures which they had not endured within the recent past. The ability of some existing distribution pipes to withstand increased system pressures upon completion of the project therefore represented another risk. This was especially so in the case of old galvanised steel small-diameter pipes, some of which were installed over 40 years ago. The risk was mitigated by the UFW reduction component which provided two full-time leak detection repair crews to carry out these and other loss reduction services. It was also further mitigated by WASA's on-going programme to replace all the corroding metal distribution pipes in the older parts of the city.

2.16 During a survey undertaken by the engineering consultants who carried out the July 1995 study on BCWSS, WASA's water storage reservoirs were deemed to be in good repair and condition. However, it was also recognised that the absence of continued routine maintenance of these facilities could result in one or more of these tanks being taken out of service for major maintenance thereby reducing system storage and levels of service. The project sought to mitigate this risk through the provision of an annual preventative maintenance programme for the expanded intake works, water treatment facilities, lift stations and existing water storage facilities on BCWSS.

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

3.01 The project was consistent with GOBZ's strategy of developing physical and social infrastructure for the promotion of the economic and social welfare of its citizens. The project was also consistent with CDB's emphasis on infrastructural development in support of general economic activity and the enhancement of social welfare.

3.02 The PCR does not discuss the significance of any particular aspect of project design that may have influenced the output delivery of the project. In fact, project design is unchecked in the PCR checklist of key factors that may have positively or negatively influenced the success of the project.

3.03 At appraisal, a number of measures were included in the design to reduce the likelihood of cost overruns on the project. These included the provision of adequate contingencies, the division of the transmission main component into separate supply and install contracts in order to increase competition in

the pipe-supply process and reduce the installation contractors' overheads and cost of preliminary items. WASA's use of its own labour force to install the WASA funded small diameter (less than 200 mm) distribution pipelines was also expected to result in tighter cost control.

3.04 The PSR for the period July to December, 2003, states that CDB had performed well on this project by designing the project to be implemented under six different contracts and by accommodating variations that were necessitated mainly by changes in the management and ownership structure of the utility during project implementation. It further states that the functional design, as well as the materials used in construction (reinforced concrete and PVC piping in corrosive areas) will ensure that the new system will achieve its design life. In addition, the PSR states that sustainability will be enhanced by the system's phased design which provides for future expansion at the source and throughout the transmission and distribution network.

3.05 Overall, the design and formulation of the project seemed satisfactory and adequate to address the problem and needs that were identified in the AR.

Project Outputs

3.06 At appraisal, the project was scheduled to have been implemented over a period of 37 months beginning in December 1997 with the engagement of engineering consultants to prepare final designs and ending December 31, 2000 with the completion of the installation of secondary distribution pipelines. The PCR states that implementation of the original scope of the project was completed by May 2002, approximately 18 months behind schedule. It adds that final contractor payments, including the release of all holdbacks, were made in 2005.

3.07 The PCR states that the project paused for several years following completion of the original scope. However, GOBZ requested approval to utilise the undisbursed loan balance of approximately USD1.64 mn to assist in financing the cost of additional works related to the project. CDB approved a Revision in Scope – Additional Works in December 2008. The 2013 PSR indicates that the additional works were completed in August 2013.

3.08 According to the AR, it was expected that upgrading of the intake works and Water Treatment Plant (WTP) at Double Run to a rated capacity of 6 MUSGD would have been completed by September 30, 2000. The PCR states that WTP at Double Run expanded from 11.3 mega litres (ML) to 22.7 ML (approximately 6 MUSGD) by May 28, 2002. It gives no explanation for the 20 month delay. Under the RS, one of the planned outputs was the expansion of WTP from 6 MUSCG to 7.3 MUSCG approximately 27.67 ML. The PCR indicates that WTP capacity expanded from 22.7 ML to 26.5 ML by October 31, 2011. There are no measurable indicators in the log frame of the RS for outputs. In this case, the output achieved is 1.17 ML or approximately 0.31 MUSGD short of the target capacity.

3.09 At appraisal, 25 km of a new 600 mm diameter transmission main, between Double Run and Belize City, was to have been completed by February 28, 2000. The PCR indicates that 14.5 km of 600 mm diameter transmission water main from Double Run to Mile 8 on the Northern Highway to the South Side Pumping Station was completed by December 31, 1996. It states that another 12.8 km of 600 mm diameter transmission water main from Mile 8 on the Northern Highway to the South Side Pumping Station in Belize was completed by September 28, 2001. In addition 14.5 km of a 350 mm diameter primary water main from Mile 13 on the Northern Highway to Burrell Boom was completed by April 30, 2001. This significantly exceeded the planned total transmission water mains that was to be supplied under the original scope of the project, albeit nineteen months late. Under the RS, it was expected that the project would supply a 250 mm diameter pipeline between Northern Highway Mile 13 to Burrell Boom. The PCR indicates that 8.6 km of a 250 mm diameter primary water main was supplied by April 30, 2011.

3.10 Another output was the installation of additional low head re-lift pumps that were capable of increasing water distribution by 7.5 ML in existing pump stations by July 15, 2000. The PCR confirms that these additional low head re-lift pumps were installed in existing pump stations by July, 2001. No reason was given for the delay of one year. Under the RS, the additional works of the project included the construction of a 1.9 ML reservoir at Wilson Hill. No time frame is provided in the log frame. The PCR indicates that this output was achieved by October 31, 2011.

3.11 The supply and installation of 7,500 m of primary distribution and 25,000 m of secondary distribution pipelines was scheduled in the AR to have been completed by December 31, 2000. The PCR states that an additional 47,000 of primary and secondary distribution pipelines were installed by March 31, 2001.

3.12 At appraisal, one of the planned outputs under the Loss Reduction component of the project was the replacement of 4,000 water meter registers and the provision of two dedicated leak-detection crews by December 31, 2000. The PCR indicates that 4,000 water meter registers were replaced and two dedicated leak detection crews were in place by December 31, 2003. No explanation is given for the three year delay in achievement. Under the RS, the project provided for the purchase of additional equipment and materials for the loss reduction crews. The PCR does not report on this aspect. It states that a third dedicated leak-detection crew was established by October 31, 2012.

3.13 A computerised accounting and billing system which was scheduled to have been upgraded by June 30, 1999 was not actually upgraded until November 30, 2001. No explanation is given in the PCR for the delay.

3.14 The PCR states that implementation of the original scope of the project was completed by May 2002, approximately 18 months behind schedule. The PSR of 2002 indicated that the project was 98% completed at December 31, 2002 and that Belize City's water supply had now increased from 2.8 MGD to 5.5 MGD. It stated that all contracts were executed within their contract periods except for Contract 'C' (Expansion and Upgrading of the water Treatment Plant), the contract period in respect of which had expired and a number of work items were still outstanding. This led to the termination of the contract with an agreement to have outstanding work completed by another contractor. The PSR stated that BWSL had indicated that it would formally request a variation in scope in order to procure a billing and accounting system modification which was different from the system approved for purchase during appraisal. Another outstanding item mentioned in the PSR was the work of the loss reduction component which was still to be completed.

3.15 Based on a review of the information available on CDB's Registry files and PSRs, the Evaluator concurs with most of the information in the PCR in respect of the implementation of the project. As indicated in Table 3 most of the expected outputs were completed, albeit over a protracted implementation period of more than one and a half decades

TABLE 3: MATRIX OF PROJECT OUTPUTS FOR ORIGINAL SCOPE (OS) AND REVISION IN SCOPE

Number	Planned Outputs at Appraisal	Outputs Achieved	Rating
1	Intake Works and Water Treatment Plant (WTP) at Double Run from 3.4 MUSGD to 6.0 MUSGD (approx... 22.7 mega litres (ML) by September 30, 2000.	WTP at Double Run expanded from 11.3 ML to 22.7 ML by May 28, 2002	SAT
	RS (Approved December 10, 2008) – Expand WTP from 6 MUSCG (22.7 ML) to 7.3 MUSCG (27.67 ML)	WTP capacity expanded from 22.7 ML to 26.5 ML by October 31, 2011	SAT
2	25 km of 600 mm diameter transmission water main between Double Run and Belize City by February 28, 2000	14.5 km of 600 mm diameter transmission water main from Double Run to mile 8 on the Northern Highway by December 31, 1996. 12.8 km of 600 mm diameter transmission water main from Mile 8 on the northern highway to the South Side Pumping Station in Belize by September 28, 2001 14.5 km of 350 mm diameter primary water main from South Side pumping station to Mile 9 on the western Highway by September 28, 2001.	SAT
	RS – Supply of a 250 diameter pipeline between Northern highway Mile 13 to Burrell Boom	Supplied 8.6 km of 250 mm diameter primary water main from Mile 13 on the Northern Highway to Burrell Broom by April 30, 2011.	HS
3	Installation of additional low head re-lift pumps capable of increasing water distribution by 2.0 MUSGD in existing pump stations by July 15, 2000	Installed additional low re-lift pumps capable of increasing water distribution by 7.5 ML (approx.1.98 MUSCG) in existing pump stations by July 31, 2001.	SAT
	RS – Construction of a 1.9 ML reservoir at the Wilson Street pump station	Construction of 1.9 ML reservoir at Wilson Street Pumping Station by October 31, 2011	SAT
4	Installation of additional 32,500 m of primary and secondary distribution by December 31, 2000.	Installed additional 47,000 of primary and secondary distribution by March 31, 2001	HS
5	4,000 replaced water meter registers and 2 dedicated leak-detection crews by December 31, 2000	4,000 replaced water meter registers and 2 dedicated leak detection crews by December 31, 2003.	MU
	RS – Purchase of additional equipment and materials	Establishment of a third dedicated leak-detection crew by October 31, 2001.	Unrated (Planned outputs and achieved outputs are not similar)
6	Upgraded Computerized Billing and Accounting system by June 30, 1999	Upgraded Computerized Billing and Accounting system by November 30, 2001	Unrated (PSRs from 2003 to 2006 indicate that this component was cancelled)
Average Rating			SAT

Project Cost, Disbursements, Borrower Contribution and Conformance to Schedule

3.16 The PCR provides a matrix of project costs and financing plan for the original scope of the project, as well as a matrix and financing plan for additional works under a revision in scope of the project.

Original Scope

3.17 The estimated cost of the project at appraisal was USD17.47 mn (\$34.95 mn). The project was to be financed by a CDB loan of USD13.83 mn (\$27.66 mn) and counterpart financing of USD3.43 mn (\$6.86 mn) provided by WASA and USD 0.22 mn (\$0.44 mn) by GOBZ. The PCR estimates actual costs for the original scope of the project as USD19.38 mn (\$38.75 mn) as shown at Table 4.

3.18 The project experienced cost overruns on seven of the eleven budget items under the original scope of the project with an overall cost overrun of USD1.91 mn. The largest cost overrun was for IDC and commitment fees which amounted to USD2.66 mn (\$5.33 mn). The CDB-financed components of the project were, however, completed within the CDB budget at a cost of USD12.19 mn (\$24.38) leaving a resultant undisbursed amount of USD1.64 mn. The PCR states that a significant amount of finance charges accrued during 2005 and 2010 (when the first disbursement on the activities related to the variation in project scope was made). During this period the project paused for several years. The project cost overrun was financed from GOBZ counterpart contribution.

Revision in Scope (Additional Works)

3.19 The estimated cost of the additional works under the revision in scope of the project was USD2.11 mn (\$4.22 mn). The cost of the additional works was to be financed by the undisbursed balance of the OCR portion of the CDB loan in the amount of USD1.64 mn, and an additional BWS (formerly WASA) contribution of USD0.465 mn. The PCR estimates actual costs of the additional works as USD1.99 mn as shown at Table 5. The additional works component was completed USD0.12 mn (\$0.24 mn) under budget.

**TABLE 4: MATRIX OF PROJECT COSTS AND FINANCING PLAN
ORIGINAL SCOPE
(USD'000)**

Item	CDB		CDB Difference	Counterpart		Counterpart Difference	Total Actual Costs
	Planned	Actual		Planned	Actual		
Land	-	-	-	10	-	10	
Water Treatment Plant	8,900	6,635	2,265	-	-	-	6635
Supply Transmission Main	6,012	5,627	385	-	-	-	5627
Install Transmission Main	3,113	5,050	(1,937)	-	-	-	5050
Pump Stations	454	1,115	(661)	-	-	-	1115
Primary Distribution	1,250	4,107	(2,857)	-	-	-	4107
Secondary Distribution	-	-		3,000	3,876	(876)	3876
Loss Distribution	294	532	(238)	276	1533	(1,257)	2065
Project management				500	627	(127)	627
Engineering Consultants				1,753	2,043	(290)	2043
Accounting/Billing	391	97	294	-	91	(91)	188
Total Base Costs	20,314	23,163	(2,849)	5,539	8,170	(2,631)	31,333
Physical Contingencies	3,639	-	3,639	6,319	-	6,319	-
Sub-Total	24,053	23,163	890	6,319	8,170	(1,851)	31,333
Price Contingencies	1,949	-	1,949	530	-	530	-
Total project Costs	26,002	23,163	2,839	6,849	8,170	(1,321)	31,333
IDC and Commitment Fee	1,656	1,208	448	439	6,212	(5,773)	7,420
Total Financing Costs	27,658	24,371	3,287	7,288	14,382	(7,094)	38,753
USD Equivalent	13,830	12,186	1,644	3,645	7,191	(3,546)	19,377

TABLE 5: MATRIX OF PROJECT COSTS AND FINANCING PLAN
REVISION IN SCOPE (ADDITIONAL WORKS)
(USD'000)

Item	CDB		CDB Difference	Counterpart		Counterpart Difference	Total Actual Costs
	Planned	Actual		Planned	Actual		
Land	-	-		-	-		
Water Treatment Plant	527	665	(138)	50	122	(72)	787
Supply Transmission Main	875	556	319				556
Install Transmission Main	-	-	-	675	618	57	618
Pump Stations	1,075	1,348	(273)				1,348
Primary Distribution	-	-	-				-
Secondary Distribution	-	-	-				-
Loss Distribution	150	118	32				118
Project management	-	-	-	120	203	(83)	203
Engineering Consultants	125	93	32				93
Accounting/Billing	-	-	-				-
Total Base Costs	2,752	2,780	(28)	845	942	(97)	3,722
Physical Contingencies	275	-	275	85	-	85	-
Sub-Total	3,027	2,780	247	930	942	(12)	3,722
Price Contingencies	-	-	-	-	-	-	-
Total project Costs	3,027	2,780	247	930	942	(12)	3,722
IDC and Commitment Fee	261	251	10	-	-	-	251
Total Financing Costs	3,288	3,030	258	930	942	(12)	3,972
USD Equivalent	1,644	1,515	129	465	471	(6)	1,986

Disbursements

3.20 According to CDB's records in respect of Loan No. 10/SFR-OR-BZ- Second water Project, after the Closing Date of June 30, 2013, USD9.28 mn had been withdrawn from the OCR Loan Account leaving an unwithdrawn balance of USD 0.12 mn. The undisbursed amount was cancelled in June, 2014.

Implementation Arrangements, Conditions and Covenants, Procurements and Contractor Performance

Implementation Arrangements

3.21 The implementation arrangements for the project are outlined in Section 1 of this Report (paragraph 2.08). The PCR states that the supply and construction contracts were effectively managed by WASA/BWS who were able to stretch available funding resources to achieve significantly more outputs than were originally envisaged. It indicates that procurement and withdrawal application submissions from WASA/BWS were timely and accurate. It notes however, that project reporting on BWS's contributions was not regularly submitted but during supervision missions they were readily obtainable from the Finance Department of BWS who maintained effective accounting for each of their projects. The PCR indicates that the Ministry of Finance and Economic Development Affairs (MFED) regularly participated in CDB supervision missions and processed contractor payments in a timely manner.

Conditions and Covenants

3.22 The PCR does not discuss the significance of any particular conditions of the Loan Agreement or the Borrower/Executing Agency compliance with loan conditions. In fact, Loan Agreement compliance is not considered in the PCR checklist of key factors influencing project success or output delivery. The compliance of the Borrower/Executing Agency with conditions of the Loan Agreement is discussed in the assessment of the performance of the Borrower and Executing Agency (paragraph 4.10).

Procurement

3.23 The PCR does not mention any procurement issues. The PSR of 2001 states that delays were experienced in the engagement of consulting engineering services and in the procurement of construction contracts. It further states that the handling of Contracts B, C, and D by GOBZ and WASA left a lot to be desired and could not be considered as satisfactory. The PSR of 2002 indicates that all contracts were executed within their contract periods except for the contract for the expansion and upgrading of the Water Treatment Plant. It indicates that after the contract period expired, a number of work items were still outstanding. This led to an agreement by BWS and the contractor agreed to terminate the contract and the outstanding work was completed by another contractor.

3.24 The PSR of 2003 states that the contracts for work at the Double Run Treatment Plant and the installation of the transmission main were not executed as efficiently as had been anticipated at appraisal. Reasons cited in the report were management and ownership changes at the utility during the implementation period, the deletion of the component for the upgrading of the computerised accounting system and the extended period required to implement the reduction in UFW.

Contractor/Consultant Performance

3.25 The PCR states that the Supervision Consultants on the Original and Revised scope of the project both performed very satisfactorily. Design modifications were prepared in a timely manner. Supervision, project reporting and the control of claims were good. It also states that the civil works contractors and goods suppliers all performed satisfactorily.

Monitoring and Evaluation

3.26 The AR specifies the reports that were to be prepared during project implementation, including monthly progress reports prepared by the engineering consultants on the progress of the works; quarterly reports on the investment cost of the project; Completion Report (prepared by the consultants) on the construction of the project, including as-built drawings; PCR (prepared by PM) and an annual preventative maintenance report. The PCR indicates that project reporting on BWS's contributions was not regularly submitted, however, during supervision missions it was readily obtainable from the Finance Department of BWS, who maintained effective accounting for each of their projects.

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)

Relevance

4.01 The PCR rates Relevance as Highly Satisfactory. This rating was based on the need for increased quantity, quality, pressure and reliability of water to supply the country's largest and most populous city, as well as the need for expansion of the City's water distribution network to include outlying areas which required water supply for sustainable development. It was also based on the project's significant contribution to Belize's development strategy.

4.02 The AR states that the project was considered a top priority for GOBZ given an estimated daily shortage of water in the City of about 1.5 mn US gallons per day (MUSGD). It notes that the project was consistent with both GOBZ's strategy of developing physical and social infrastructure for the promotion of the economic and social welfare of its citizens. The project was also consistent with CDB's emphasis on infrastructural development in support of general economic activity and the enhancement of social welfare.

4.03 The PCR states that Belize City and its immediate environs now have a reliable, safe, adequate and consistently potable water supply. It further states that the additional works of the project have reinforced the supply system, particularly in the Burrell Boom Service area. With regard to poverty relevance, the PCR indicates that adequate quantities of reliable and potable water are being delivered to poor areas and that the additional goods and works have improved BWS's production and transmission capacity as well as its service coverage of poor areas. In light of the foregoing, the Evaluator concurs with the PCR rating of Highly Satisfactory.

Effectiveness

Achievement of Outputs

4.04 **PCR Assessment:** The PCR rates the achievement of outputs as Satisfactory. It states that implementation of the Original Scope was completed by May 2002, approximately 18 months behind schedule, and that all payments to the final contractor, including the release of all holdbacks, were made in 2005. The PCR points out that although a significant amount of finance charges accrued during the period 2005 to 2010 (when the first disbursement on the activities related to the variation were made), the economic rate of return (ERR) exceeded expectations of the Original Appraisal and Variation Paper. It further states that the project paused for several years and since many of the participants were unavailable due to the long period in implementation, an exit workshop was not conducted.

4.05 **Evaluator's Assessment:** In accordance with the average ratings for outputs under the Original Scope and the Revised Scope of the project presented in Table 2, the Evaluator awards an average rating of Satisfactory for Outputs.

Achievement of Outcomes

4.06 Four outcomes shown in the matrix below were identified in the AR. The overall achievement of these development objectives (outcomes) is rated in the PCR as Highly Probable.

Matrix of Project Outcomes

Number	Planned outcomes at Appraisal	Baseline 1997	Outcomes Achieved	Rating by Evaluator
1	Minimum water pressure 25 psi head throughout the entire water supply system	NA	Minimum water pressure of 17 psi head throughout the entire water supply system.	SAT
2	Minimum of 1,800,000 gallons of reserve storage available during all periods of normal operation	NA	Minimum of 1,800,000 gallons of reserve storage available during all periods of normal operation.	HS
3	Recorded consumption of water being a minimum of 70% of recorded water production	NA	Recorded consumption of water being a minimum of 72.2% of recorded water production	HS
4	(i) Increase in BCWSS' customer base by 2,504 connected by March 31, 2003.	NA	(i) Increased BCWSS customer base by 2,450 connection by 2003.	SAT
	(ii) Increase in BCWSS' customer base by 2,800 connected by March 31, 2011.		(ii) Increased BCWSS customer base by a further 9,550 connections by 2014.	HS
Overall Rating				HS

4.07 **PCR Assessment:** The achievement of development objectives (outcomes) is rated in the PCR as Highly Probable. The PCR gives no justification for this rating. Amongst the key factors cited in the PCR that influenced the success of the project was the Revision in Scope which enabled an expansion of the system to service the Burrell Boom area. The PCR indicates that this also enabled the connection of approximately 500 new customers on the BRC systems to BCWSS.

Rating of Effectiveness

4.08 **PCR Assessment:** The PCR gives a rating of (i) Satisfactory for achievement of outputs and (ii) Highly Probable (Highly Satisfactory) for achievement of outcomes. Given that the Effectiveness rating is a simple arithmetic average of the ratings for project outputs and outcomes, this equates to a rating of Highly Satisfactory.

4.09 **Evaluator's Assessment:** On the basis of the composite score resulting from the Evaluator's ratings of Outputs (Satisfactory) and Outcomes (Highly Satisfactory), the Effectiveness rating, calculated as an arithmetic average, is Highly Satisfactory.

Efficiency

4.10 The PCR rates Efficiency as Satisfactory. It states that the original scope of works was completed within the appraised budget and the original works and goods were completed within budget estimates.

4.11 In the summary rating of outputs (paragraph 4.04 refers), the PCR states that although a significant amount of finance charges accrued during the period 2005 to 2010, the economic rate of return (ERR) exceeded Original Appraisal and Variation Paper expectations. It also states that the incremental ERR at

Project completion was estimated at 17%, compared to the revised ERR of 15% calculated in 2008 when the scope of the project was revised. It notes that the original ERR at appraisal was 14%.

4.12 **Evaluator's Assessment:** From an implementation perspective, the project cannot be considered as efficient. The original scope of the project was estimated to have an implementation period of three years and one month beginning in December 1997 and ending at December 31, 2000. However, the original scope of the project was under implementation for almost eight years prior to pausing for several years according to the PCR. The PCR indicates that a significant amount of finance charges had accrued during the period 2005 to 2010 (when the first disbursement on the activities related to the variation in scope was made). The PSR of 2004 reported that the project had experienced significant delays and the Borrower was taking too much time to complete the Non-Revenue Water component of the project. As a result, the performance rating at that time had slipped to Marginally Unsatisfactory. The PSR of 2004 also reported that funds to complete remaining work was expected to be fully disbursed by June 2005. The PSR of 2010 indicated that procurement of the additional work under the revision in scope was completed during the year (2010). The project was completed in 2013.

4.13 From a quantitative perspective, an ERR of 17% is consistent with a PAS rating of Highly Satisfactory. However, given the above mentioned protracted delays in implementation progress and the length of time for output delivery, the Evaluator rates this criterion as Satisfactory.

Sustainability

4.14 The PCR gives two different ratings for Sustainability. It rates Sustainability as Highly Probable (equivalent to Highly Satisfactory in PAS) on Page 11 of the Report, as well as Satisfactory on Page iii in the summary of the Report

4.15 In respect of capital risk, it points out that even though BWS is not exposed to significant capital risks, it has implemented appropriate policies to assist expanding its operations to future developments within the urban and rural areas of the country. The PCR states that developers are required to contribute to the setup of infrastructural expansion which eases the financial burden of expansion on BWS resources. It indicates that the company operates under a monopoly license until March 2026, which provides adequate safeguards against political and economic events. It further states that capital requirements are routinely forecast on a periodic basis, and assessed against both forecasted available capital and the expected internal rate of return, including risk and sensitivity analyses.

4.16 The PCR states that at March 31, 2014, BWS had traded receivables of \$2.5 mn all concentrated within the country of Belize. It indicates that GOBZ continues to be the largest customer with an outstanding balance of \$227,116 at March 31, 2014. The PCR states that BWS has not made any significant increase in provisions for doubtful accounts in recent years which suggests that exposure to credit is low.

4.17 The PCR indicates that at the 2014 financial year end, financial assets of BWS totalling \$7.6 mn had a maturity of three months or less, while \$4.7 mn of financial liabilities were to mature in within three months; \$5.0 mn between three months to 1 year; and \$22.5 mn between one to five years. The PCR states that this is an indication that the Company should have minimum difficulty in obtaining funds to meet its commitments and obligations on time.

4.18 The PCR states that the BWS manages operational risk in order to avoid financial losses and damages to the company's reputation. It indicates that the structure to manage operational risk has been designed to segregate duties among owners, executors, control areas and areas in charge of compliance with policies and procedures. The PCR further states that in order to establish such methodology, BWS has

assigned resources to strengthen internal control and organisational structure allowing independence among the business area, risk control, and record keeping.

4.19 Given that the majority of performance outcomes and outputs were achieved albeit over a protracted time frame and are supported by the above mentioned capital, credit, liquidity and operational risks measures instituted by BWS, the Evaluator rates Sustainability as Satisfactory.

Performance of the Borrower and Executing Agency

4.20 The PCR rates the performance of the Borrower/Implementing Agency as Satisfactory. It states that WASA and BWS provided effective project management of the goods supply and construction works. The PCR indicates that BWS installed, tested, and commissioned the Burrell Boom transmission pipeline to acceptable standards and according to schedule. It also states that the Ministry of finance and economic Development regularly participated in CDB supervision missions and processed contractor payments in a timely manner. It concludes that overall the performance of GOBZ can be considered as satisfactory.

4.21 In light of the foregoing, and on the basis of a Satisfactory performance assessment in 12 out of 14 PSRs (the other two were rated Marginally Unsatisfactory) during implementation, the Evaluator rates Borrower performance as Satisfactory.

Performance of the Caribbean Development Bank

4.22 The PCR does not provide a self-assessment of CDB performance. The Evaluator rates the performance of CDB as Satisfactory based on information from CDB's Registry files and PSRs of the project which indicate that CDB staff provided support and guidance during project implementation that included assistance to BWS with procurement related documentation; withdrawal applications; project design under six separate contracts and accommodating variations necessitated by a change in ownership structure. The Bank also prepared an additional BOD Paper to vary the scope of the project to utilise undisbursed funds to assist in financing the cost of additional works related to the Belize City Water and Sewerage Project.

5. OVERALL ASSESSMENT

5.01 The overall performance rating of the project is determined by separately evaluating and rating the four evaluation core criteria. The arithmetic average of the scores for the core criteria in this case is 3.50 or Satisfactory. The Evaluator therefore concurs with the PCR's rating of Satisfactory. Details of the ratings and the justification for differences between ratings from the PCR and the Evaluator are provided in Table 6.

TABLE 6: SUMMARY RATINGS OF CORE EVALUATION CRITERIA AND OVERALL ASSESSMENT OF THE PROJECT

Criteria	PCR	OIE Review	Reason if any for Disagreement/Comment
Strategic Relevance	Highly Satisfactory (4)	Highly Satisfactory (4)	
Efficacy Effectiveness	Highly Satisfactory (4)	Highly Satisfactory (4)	
Cost Efficiency	Satisfactory (3)	Satisfactory (3)	
Sustainability	Highly Satisfactory (4)	Satisfactory (3)	Not all project outcomes were fully achieved. The Sustainability rating relates to all planned outcomes that are listed in the AR.
Composite (Aggregate) Performance Rating	Highly Satisfactory (3.75)	Highly Satisfactory (3.50)	
Borrower & EA Performance	Satisfactory	Satisfactory	
CDB Performance	Not Rated	Satisfactory	CDB staff provided support and guidance during project implementation that included assistance to BWS with procurement related documentation; withdrawal applications; project design under multiple contracts and variations necessitated by a change in ownership structure. The Bank also prepared an additional BOD Paper to vary the scope of the project.

Lesson

5.02 The PCR identifies the following lesson learnt from the project that is considered useful to inform new project design:

- (a) The relatively small investment made to reduce Non Revenue Water (NRW) proved to be highly effective and contributed significantly towards achieving a higher ERR than anticipated at Appraisal. Amongst CDB's BMCs, water utilities have very high NRW, therefore investment in NRW reduction should be considered for incorporation as a component in future CDB-funded projects.

5.02 The Evaluator concurs with the lesson and considers it to be a very important one.

6. COMMENTS ON PCR QUALITY

6.01 The Evaluator rates the quality of the PCR as **Marginally Unsatisfactory** as a result of deficiencies in its design and content. The PCR does not use the required template of the Bank's Operational Policies and Procedures Manual (OPPM). As a result there are key information gaps.

6.02 The template of the OPPM requires a justification for ratings given for the core criteria used for assessment of project performance under the Bank's Performance Assessment System (PAS). The template of the PCR has no provision for justification under outcomes. Similarly, at the end of each project output, the OPPM requires an explanation for any differences in achievement. The template of the PCR provides none.

6.03 There is no provision in the body of the Report for the assessment of the Efficiency criterion and its justification. In addition, the OPPM requires a matrix of Project Costs and Financing Plan showing differences in component costs where they exist but the PCR does not follow this design and omits data differences. The ratings that are used in the PCR provide descriptive terms such as: Highly Probable; Probable; Low Probability; and Improbable which are also not consistent with the terms used in the Bank's OPPM.

7. DATA SOURCES FOR VALIDATION

7.01 The primary data sources for this validation exercise were CDB's AR and Loan Agreement; CDB's PSRs; and CDB's Registry files in respect of the project.

8. RECOMMENDATIONS FOR OIE FOLLOW-UP

8.01 No follow-up for OIE is required. The Evaluator does not consider that a Project Performance Audit Report would provide significantly more information than contained in the PCR that would serve to further inform the Bank on optimal design for Water Supply projects.