



# Periodic Financing Request Report

---

Project Number: 43405-027  
MFF Number: 0055  
September 2015

## Georgia: Urban Services Improvement Investment Program (Tranche 5)

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.



## **CURRENCY EQUIVALENTS**

(as of 21 September 2015)

Currency Unit	–	lari (GEL)
GEL1.00	=	\$0.408
\$1.00	=	GEL2.448

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
EMP	–	environmental management plan
FFA	–	framework financing agreement
GAP	–	gender action plan
GNEWRC	–	Georgia National Energy and Water Supply Regulatory Commission
IEE	–	initial environmental examination
IPMO	–	investment program management office
km	–	kilometer
MFF	–	multitranchise financing facility
MRDI	–	Ministry of Regional Development and Infrastructure
O&M	–	operation and maintenance
PAM	–	project administration manual
Q	–	quarter
SDP	–	sector development plan
STP	–	sewage treatment plant
UWSCG	–	United Water Supply Company of Georgia
WSS	–	water supply and sanitation

## **NOTES**

- (i) The fiscal year (FY) of the Government of Georgia and its agencies ends on 31 December.
- (ii) In this report, “\$” refers to US dollars.

<b>Vice-President</b>	W. Zhang, Operations 1
<b>Director General</b>	S. O'Sullivan, Central and West Asia Department (CWRD)
<b>Director</b>	A. Chiplunkar, Urban Development and Water Division, CWRD
<b>Team leader</b>	S. Joshi, Senior Urban Development Specialist, CWRD
<b>Team members</b>	M. Beauchamp, Social Development Specialist (Safeguards), CWRD
	S. Campbell, Senior Social Development Specialist (Gender and Development), CWRD
	A. Carlota, Counsel, Office of the General Counsel
	I. Chkonia, Senior Project Officer, CWRD
	M. Seno, Operations Assistant, CWRD
	L. Shen, Senior Urban Development Specialist, CWRD
	M. Tan, Associate Project Analyst, CWRD
	T. Tran, Senior Environment Specialist, CWRD

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.



## CONTENTS

	Page
TRANCHE AT A GLANCE	
PROJECT LOCATION MAP	
I. BACKGROUND	1
II. ASSESSMENT OF IMPLEMENTATION	1
A. Sector Policy, Strategy, and Road Map	1
B. Assessment of Investment Program Implementation	2
C. Compliance	4
III. PERIODIC FINANCING REQUEST	4
A. Impact and Outcome	4
B. Outputs	4
C. Investment and Financing Plans	5
D. Implementation Arrangements	6
E. Project Readiness	6
F. Advance Contracting and Retroactive Financing	7
IV. DUE DILIGENCE	7
A. Technical	7
B. Economic and Financial	7
C. Governance	7
D. Poverty, Social, and Gender Dimensions	8
E. Safeguards	9
F. Risks and Mitigating Measures	10
G. Risk Categorization	10
V. ASSURANCES AND CONDITIONS	10
VI. RECOMMENDATION	10
APPENDIXES	
1. Design and Monitoring Framework for Project 5	
2. Loan Agreement	
3. Project Agreement	
4. Periodic Financing Request for Project 5	
5. Project Administration Manual for Project 5	
6. Updated Contribution to the ADB Results Framework	
7. Economic and Financial Assessments for Project 5	
8. Updated Summary of Poverty Reduction and Social Strategy	
9. Safeguard Reports	
10. Updated Risk Assessment and Risk Management Plan	
SUPPLEMENTARY APPENDIX	
A. Project Climate Risk Assessment and Management Report	
B. Schedules of compliance with FFA undertakings and the previous loan covenants	

## TRANCHE AT A GLANCE

1. Basic Data		Project Number: 43405-027	
Project Name	Urban Services Improvement Investment Program - Tranche 5	Department /Division	CWRD/CWUW
Country Borrower	Georgia Ministry of Finance - Georgia	Executing Agency	Ministry of Regional Development and Infrastructure of Georgia
2. Sector	Subsector(s)	ADB Financing (\$ million)	
Water and other urban infrastructure and services	Urban sanitation	75.00	
		Total	75.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG) Environmentally sustainable growth (ESG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive Urban environmental improvement	Climate Change impact on the Project High	
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD) Knowledge solutions (KNS)	Institutional development  Application and use of new knowledge solutions in key operational areas Pilot-testing innovation and learning	Effective gender mainstreaming (EGM) ✓	
5. Poverty Targeting		Location Impact	
Project directly targets poverty MDG-targeting (TI-M)	Yes MDG7	Urban High	
6. Risk Categorization:	Low		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: C Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		75.00	
Sovereign MFF-Tranche (Loan): Asian Development Fund		32.00	
Sovereign MFF-Tranche (Loan): Ordinary capital resources		43.00	
Cofinancing		0.00	
None		0.00	
Counterpart		15.00	
Government		15.00	
Total		90.00	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		No	

## TRANCHE AT A GLANCE

Date of Receipt by ADB of PFR: 31 March 2015

Tranche Number: 5

10. Country Operations Business Plan

CPS

COBP

<http://www.adb.org/documents/georgia-country-partnership-strategy-2014-2018>  
<http://www.adb.org/documents/georgia-country-operations-business-plan-2015-2017>

11. Tranche Summary

Project 5 will finance the sewerage system in Zugdidi and Mestia, the secondary towns covered by the Investment Program. The first component of the project will support infrastructure investments to construct sewerage system in Zugdidi and Mestia, and benefit approximately 20,600 households in Zugdidi and a population of 6,500 in Mestia (including floating tourist population). The second component will include project implementation support.

Impact and Outcome:

Outputs:

Implementation Arrangements:

Project Readiness:

12. Significant Developments in the MFF and Previous Tranches

Project 1 (\$80 million) aims to improve water supply and sanitation (WSS) services in Anaklia, Kutaisi, Mestia, Poti and Ureki. Water and sewerage networks have been completed in Anaklia and Mestia. The water supply improvement in Anaklia, Kutaisi and Poti are progressing satisfactorily. The water treatment plant in Mestia along with a STP in Anaklia (under Project 2) was awarded on design-build basis. One works contract for United Water Supply Company of Georgia LLC (UWSCG) office building is delayed due to cancellation of earlier bidding, and thereafter change in the site. As of 30 April 2015, cumulative contract award amounted to \$62.13 million (85%), and disbursement to \$29.42 million (39%). The physical progress of Project 1 is 42% against the elapsed time of 72%, and is rated 'on-track'.

Project 2 (\$40 million), aims to improve WSS services in Anaklia, Mestia and Ureki. Under this project construction of 67 km water network and 76 km of sewer network have been completed. As of 30 April 2015, cumulative contract award amounted to \$31.87 million (88%), and disbursement to \$20.94 million (56%). The physical progress is 58% against the elapsed time of 59%, and the project is rated 'on-track'.

Project 3 (\$98 million), aims to improve WSS services in Ureki and Kutaisi. All the major works contracts for augmentation of water supply system in Kutaisi, WSS system in Ureki, a design-build contract for STP in Ureki, and one goods supply contract for laboratory equipment have been awarded. The appointment of consultants for development of geo-spatial utility management system is delayed and expected to be completed by end 2015. As of 30 April 2015, cumulative contract award amounted to \$48.65 million (54%), and disbursement to \$4.83 million (5%). The physical progress of Project 1 is 2% against the elapsed time of 24%, and the project is 'on-track'.

Project 4 (\$108 million), made effective on 30 March 2015, aims to improve water supply in Zugdidi and sewerage system in Poti.

On non-physical components of the investment program, UWSCG has signed the management consultancy contract for improvement of utility operation and management. The design engineering consultant has substantially completed WSS designs. UWSCG has engaged construction supervision consultants. The consultancy for WSS management program with Georgian universities is ongoing. The appointment of consultants for the development of sector regulatory capacity is in progress.

FFA undertakings and loan covenants for all previous tranches have been complied with.

13. Milestones

Estimated Approval

Estimated Effectiveness

Estimated Completion<sup>a</sup>

14. Linked Documents

(i) Environment

Weblink:

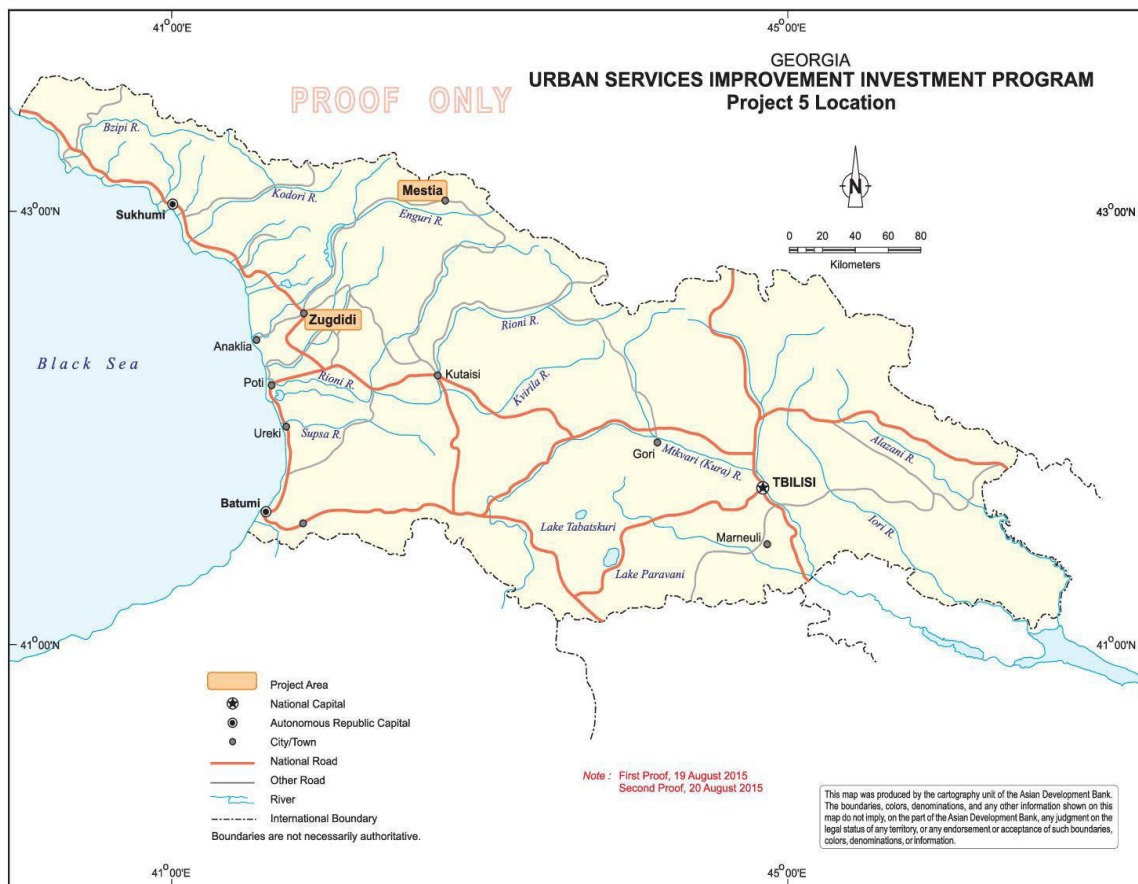
(ii) Involuntary resettlement

Weblink:

Required Document

Disclosure Date







## I. BACKGROUND

1. A framework financing agreement (FFA) for the Urban Services Improvement Investment Program multitranche financing facility (MFF) was signed between Georgia and the Asian Development Bank (ADB) on 1 March 2011.<sup>1</sup> Subsequently, on 30 March 2011, ADB's Board of Directors approved the MFF for financing the investment program in an amount not exceeding \$500 million. The investment program's executing agency is the Ministry of Regional Development and Infrastructure (MRDI) and the implementing agency is the United Water Supply Company of Georgia (UWSCG).

2. The MFF closing date is 30 September 2019 and it is expected to have six tranches that will be processed by 2016.<sup>2</sup> The government submitted a periodic financing request for tranche 5 on 31 March 2015. The project under this tranche will improve the sewerage and sanitation system in Zugdidi and Mestia towns covered under the investment program.

## II. ASSESSMENT OF IMPLEMENTATION

### A. Sector Policy, Strategy, and Road Map

3. Improved urban water supply and sanitation (WSS) service is a key priority of the government, as it is essential to improving quality of life, attracting investment, and raising productivity and competitiveness. The government's urban WSS sector development plan (SDP) for 2011-2020, approved on 31 January 2011, aims to ensure continuous and reliable water supply and safe sanitation services to all urban residents by 2020. The SDP's policy and institutional reform framework has a strong focus on the technical sustainability of WSS services, environmental and natural resource protection, public-private partnerships, tariff rationalization, prudent financial management, and improved sector regulation by enabling legislative and regulatory frameworks for WSS services.

4. The road map and policy framework for the WSS sector in the investment program are in line with the SDP's approach, and the projects under the investment program were designed with the shared objectives of the SDP. The MRDI and UWSCG are following the actions, targets, and institutional reform framework of the SDP.<sup>3</sup>

#### (i) Technical sustainability and environmental protection:

- (a) The long-term investment plan, 2011-2020, prepared under the SDP, is estimated at \$1.65 billion. Other development partners are also supporting the MRDI and UWSCG in achieving the objectives and investment plan. UWSCG is prioritizing the creation of assets to achieve full service coverage with continuous and reliable WSS services.
- (b) To ensure better operation and maintenance (O&M) of WSS assets, UWSCG has engaged a renowned water utility operator through a 3-year performance-based management consultancy contract for improvements

---

<sup>1</sup> The FFA was amended on 7 November 2012 to increase the number of towns covered under the investment program from six to seven (Anaklia, Kutaisi, Marneuli, Mestia, Poti, Ureki, and Zugdidi) as well as a few other minor modifications.

<sup>2</sup> Project 1 (loan amount of \$80 million) was approved on 12 April 2011, signed on 10 May 2011, and made effective on 15 June 2011. Project 2 (\$40 million) was approved on 23 November 2011, signed on 1 December 2011, and made effective on 19 December 2011. Project 3 (\$98 million) was approved on 5 December 2013, signed on 19 December 2013, and made effective on 17 March 2014. Project 4 (\$108 million) was approved on 11 December 2014, signed on 5 February 2015, and made effective on 30 March 2015.

<sup>3</sup> Detailed in the Facility Constituents (accessible from Schedule 1 of the Framework Financing Agreement).

in asset management, financial management, and operational and commercial efficiency. In addition, the projects are designed to include (i) design-build-operate contracts for sewage treatment plant (STP), where O&M is financed through loan in the initial years in order to address the issue of lack of expertise and resources, (ii) provision of sewer cleaning and other equipment including a fully equipped laboratory, financed through previous tranches of the loan, (iii) provision of training to the staff by the management contractor in best O&M practices, (iv) requirement of contractor for all works contracts to prepare an operating manual, and (v) UWSCG ensures that adequate qualified staff is appointed at each service center and trained to take care of O&M of the system after commissioning.

- (c) UWSCG is making adequate investments in water treatment and sewage treatment, including the procurement of laboratory equipment, which was financed under project 3.
- (ii) **Institutional and financial sustainability:**
  - (a) The management consultant has been working with UWSCG to establish an improved organizational structure. Engagement of consultants for implementation of the WSS management program, in collaboration with Georgian Technical University, is under way. UWSCG has been conducting customer outreach programs and has set up a grievance redress mechanism to address technical and safeguards related issues.
  - (b) UWSCG submitted to ADB a 5-year business plan in December 2014. UWSCG is progressing well on full metering but it needs to improve its financial accounting and reporting system, and tariff setting, for cost recovery-thus reducing dependence on government subsidies.
- (iii) **Enabling legal and regulatory framework.** The development of regulatory tools and systems, legislative framework amendments, and environmental and health regulation are part of the Georgia National Energy and Water Supply Regulatory Commission (GNEWRC) capacity development program. The procurement process for appointment of consultants was delayed by two years, but the government initiated the process in February 2015.<sup>4</sup>

5. Project 5 was designed in line with the development objectives of the investment program and those of the SDP: (i) investment in STPs in Zugdidi and Mestia, and (ii) the introduction of public-private partnership in system O&M through design-build-operate contracts for the STPs.

## **B. Assessment of Investment Program Implementation**

### **i. Physical Progress**

6. **Project 1** will improve WSS services in Anaklia, Kutaisi, Mestia, Poti, and Ureki. It is scheduled for completion by 31 March 2016 and the loan closing date is 30 September 2016. Though implementation was initially slow because of delays in contract awards, physical progress has accelerated since 2013. Water intake works and reservoirs, including 10.7 kilometers (km) of water transmission lines, have been completed in Mestia. The water supply system improvement in Anaklia, Kutaisi, and Poti has achieved 65% progress, with 23 km of water transmission lines, 70 km of water distribution network, and three large reservoir

---

<sup>4</sup> The proposals from the short-listed firms were received on 31 August 2015, which are being evaluated by MRDI.

pumping stations completed. The construction of a water treatment plant in Mestia and an STP in Anaklia (under project 2) is in progress. A contract for Ureki WSS system (financed under projects 1, 2, and 3) was awarded in October 2014. One works contract for the UWSCG office building is delayed because earlier bidding was cancelled and the project site was changed. The contract is expected to be awarded in Q4 2015. Overall, project 1 has achieved 55% physical progress against the elapsed loan period of 80% and is rated *on track*.<sup>5</sup>

7. **Project 2** aims to improve WSS services in Anaklia, Mestia, and Ureki. It is scheduled for completion by 31 December 2016 and the loan closing date is 30 June 2017. WSS networks have been completed in Anaklia and Mestia, comprising 110 km of water network, 124 km of sewerage network, 41 sewage pumping stations, and about 1,600 customer connections. Overall, project 2 has achieved 64% physical progress against the elapsed loan period of 67% and is rated *on track*.<sup>6</sup>

8. **Project 3** aims to improve WSS services in Ureki and Kutaisi. It is scheduled for completion by 31 December 2017 and the loan closing date is 30 June 2018. A design–build contract for the STP in Ureki was awarded in April 2015. All modern laboratory equipment has been procured through a supply contract for laboratory equipment. A supply contract for sewer cleaning equipment was rebid in May 2015 after the initial bid process failed. Project 3 has achieved 11% physical progress against the elapsed loan period of 34% and is rated *on track*.<sup>7</sup>

9. **Project 4** aims to improve WSS services in Zugdidi and Poti. It is scheduled for completion by 31 December 2017 and the loan closing date is 30 June 2018. The contract for major water supply works in Zugdidi is expected to be awarded by middle of October 2015. The bids for a sewerage works contract in Poti and a design–build–operate contract for the STP in Poti will be awarded by December 2015. Project 4 is rated *on track*.

## ii. Nonphysical Progress

10. **Institutional effectiveness.** UWSCG has engaged a management consultant (a joint venture of Sachsen Wasser and AHT Group of Germany) since July 2013. UWSCG management approved all the first year contract deliverables (various operative plans), and recommendations are being implemented and monitored. After the completion of advisory work for a WSS management program in Georgian universities, consultant appointment is ongoing for rolling out the program. The consultants for the development of sector regulatory capacity will be appointed by October 2015. UWSCG has completed a geospatial WSS utility management system in six program towns; an additional 49 towns will be covered under project 3.<sup>8</sup>

11. **Project implementation support.** All major WSS designs for the investment program towns were completed by December 2014. UWSCG signed a consultancy contract with a joint venture-Eptisa Servicios de Ingeniería, Spain; SAFEGE, Belgium; and JSC Georgian Water Project, Georgia-on 29 October 2012 for construction supervision of various works contracts

<sup>5</sup> The contract award rate was 91.98% and the disbursement rate was 100% of the projections up to Q3 2015. The cumulative contract awards amounted to \$62.49 million (85%) and disbursement to \$36.47 million (48%).

<sup>6</sup> The contract award rate was 95.34% and the disbursement rate was 98% of the projections up to Q3 2015. The cumulative contract awards amounted to \$31.58 million (87%) and disbursements to \$21.94 million (59%).

<sup>7</sup> The contract award and disbursement rates are 100% of the projections up to Q3 2015. The cumulative contract awards amounted to \$57.43 million (64%) and disbursements to \$11.80 million (13%).

<sup>8</sup> ADB. 2010. *Technical Assistance to Georgia for Developing a Geospatial Urban Water Supply and Sanitation Utility Management System*. Manila.

under projects 1, 2, and 3 of the investment program. This has significantly improved the projects' implementation. The construction supervision consultant for project 4 was appointed in July 2015.

### **C. Compliance**

12. UWSCG has submitted a report of compliance with FFA undertakings and covenants in the loan and project agreements. The government has complied with all undertakings in the FFA and the covenants in the loan and project agreements that are due at the time of processing project 5 of the MFF.

13. **Safeguards and gender compliance.** Projects 1, 2, 3, and 4 are classified category B for both environment and involuntary resettlement. All four projects are category C for indigenous peoples. Prior to the award of contracts under projects 1 and 3, ADB cleared the land acquisition and resettlement plans to compensate affected households. The few temporary involuntary resettlements in projects 1 and 2 during the construction phase have been addressed. The safeguard specialists appointed under the investment program management office (IPMO) in UWSCG, and in the construction supervision consultant team, are monitoring implementation of the land acquisition and resettlement plans. Site-specific environmental management plans (EMPs) are included in the civil works contracts. As required under the loan agreement, UWSCG submits periodic environmental monitoring reports that indicate satisfactory compliance with the environmental safeguards. UWSCG's gender specialist guided by a gender consultant appointed under regional technical assistance, monitor the implementation of the gender action plan (GAP).<sup>9</sup> Projects 1, 2, 3, and 4 are classified as effective gender mainstreaming, and each project has a GAP. While most actions under the GAPs are on track, the following require further attention by UWSCG management: (i) sex-disaggregated customer review, (ii) human resource development strategy to increase women in UWSCG management, (iii) 30% of customer service center staff are women (15%–26% in 2015), and (iv) verification of new jobs being advertised encouraging qualified women to apply.

## **III. PERIODIC FINANCING REQUEST**

### **A. Impact and Outcome**

14. Project 5 will contribute to the achievement of the investment program's impact through improved health of residents in the urban centers of Zugdidi and Mestia. Project 5 will contribute to the achievement of the investment program's outcome through improving sanitation services in the urban centers of Zugdidi and Mestia.

### **B. Outputs**

#### **1. Component 1: Infrastructure Improvement**

15. The sewerage and sanitation system efficiency will be improved in Zugdidi town through the construction of about 178 km of sewer lines, about 23 sewage pumping stations, and a new STP of about 11 million liters per day capacity.<sup>10</sup> In addition, a new STP of 1.5 million liters per day capacity will be constructed in Mestia town. Project 5 will benefit about 20,000 households in Zugdidi, and a population of 6,500 in Mestia (including floating tourist population).

<sup>9</sup> ADB. 2010. *Technical Assistance for Promoting Gender-Inclusive Growth in Central and West Asia Developing Member Countries*. Manila.

<sup>10</sup> A comprehensive water supply system for Zugdidi town was proposed under project 4.

## 2. Component 2: Project Implementation Support

16. This will include (i) implementation of a public awareness program in Zugdidi to disseminate information on hygiene and sanitation; and (ii) the establishment of customer care units in the service centers, which are staffed by at least 30% women that inform, educate, and communicate on water, hygiene, and sanitation.

### C. Investment and Financing Plans

17. Project 5 is estimated to cost \$90 million (Table 1). The cost estimates have been prepared by the consultants after completion of detailed engineering.

**Table 1: Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Infrastructure improvement	76.07
2. Project implementation support	3.11
<b>Subtotal (A)</b>	<b>79.18</b>
<b>B. Contingencies<sup>c</sup></b>	<b>8.72</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>2.10</b>
<b>Total (A+B+C)</b>	<b>90.00</b>

<sup>a</sup> Includes taxes and duties of \$12.08 million to be financed from government resources.

<sup>b</sup> In mid-2015 prices.

<sup>c</sup> Physical contingencies are computed at 8% of the base cost. Price contingencies computed at 1.4% on foreign exchange costs and 5.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest during construction and commitment charges. Interest during construction for Asian Development Bank loans has been computed for the loan from the Asian Development Fund at 2% per annum, and at the 5-year forward London interbank offered rate plus a spread of 0.7% for the loan from ordinary capital resources. Commitment charges for an ordinary capital resources loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

18. The government has requested a loan in various currencies equivalent to \$32 million from ADB's Special Funds resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per annum during the grace period and thereafter, and such other terms and conditions set forth in the draft loan and project agreements. In addition, the government has requested a loan of \$43 million from ADB's ordinary capital resources to help finance the project. The ordinary capital resources loan will have a 24-year term, including a grace period of 13 years, straight line repayment method, an annual interest rate determined in accordance with ADB's London interbank offered rate-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements. Based on this, the average loan maturity is 18.75 years and the maturity premium payable to ADB is 0.20% per annum. The interest and other charges during construction, as applicable, will be capitalized in the loan. The government has provided ADB with (i) the reasons for its decision to borrow under ADB's London interbank offered rate-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB. The government's contribution includes 18% value-added tax on works and consulting contracts, and contingencies of \$2.92 million. The financing plan is in Table 2.

**Table 2: Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
ADB - Ordinary Capital Resources	43.00	47.78
ADB - Special Funds	32.00	35.56
Government	15.00	16.66
<b>Total</b>	<b>90.00</b>	<b>100.00</b>

Sources: United Water Supply Company of Georgia and Asian Development Bank estimates.

## **D. Implementation Arrangements**

19. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM) (Appendix 5).

**Table 3: Implementation Arrangements**

Table 6: Implementation Arrangements			
Aspects	Arrangements		
Implementation period	December 2015–December 2018		
Estimated completion date	31 December 2018 (loan closing date: 30 June 2019)		
Management			
(i) Executing agency	Ministry of Regional Development and Infrastructure		
(ii) Implementing agency	United Water Supply Company of Georgia		
(iii) Implementation unit	IPMO in United Water Supply Company of Georgia (8 consultants and 10 staff)		
Procurement	ICB	1 civil works contract + 1 design–build–operate STP contract	\$76.07 million
Consulting services	QCBS	301 person-months	\$2.87 million
	LCS	15 person-months (intermittent)	\$0.24 million
Retroactive financing and/or advance contracting	Advance contracting for procurement of civil works and consulting services, and retroactive financing (in principle) of expenditure up to 20% of the loan amount incurred before loan effectiveness but not earlier than 12 months before the signing of the loan agreement.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB’s <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, ICB = international competitive bidding, IPMO = investment program management office, LCS = least cost selection, QCBS = quality- and cost-based selection, STP = sewage treatment plant.

Sources: United Water Supply Company of Georgia and Asian Development Bank estimates.

20. A construction supervision consultant will be selected following quality- and cost-based selection (quality–cost ratio of 90:10) to oversee the implementation of works under project 5. The audit consultant will be selected following least cost selection, as the assignment is small and of a routine nature with well-established practices and standards.

## **E. Project Readiness**

21. Detailed engineering designs, including detailed bills of quantity, have been prepared for the sewerage system in Zugdidi town. The conceptual design of the STPs in Zugdidi and Mestia is ready, as both STPs will be bid out under a single design–build–operate contract. The government submitted design reports for the subprojects along with the periodic financing request. This innovative design–build–operate contract is being tested for the first time in Georgia, with short-term O&M responsibility passed on to the private sector. Final initial environmental examination (IEE) reports were disclosed on the ADB website on 4 June 2015. The IEEs included EMPs, which will form part of the bidding documents. No land acquisition is required in Zugdidi and Mestia for construction of the sewerage system and STPs, as they are being built on government-owned sites. Bidding documents are being prepared, and all master



bidding documents recently approved for project 4 will be used.<sup>11</sup> All bids will be ready for issue by October 2015. The procurement plan is in the PAM.

#### **F. Advance Contracting and Retroactive Financing**

22. On 28 May 2015, ADB approved the government's request for advance contracting for procurement of civil works and consulting services, and retroactive financing (in principle) of expenditures for the same not exceeding an amount equal to 20% of the loan amount, incurred before loan effectiveness but not earlier than 12 months before the signing of the loan agreement. The government has been advised that the approval of advance contracting and retroactive financing will not constitute a commitment by ADB to finance any ensuing project.

### **IV. DUE DILIGENCE**

#### **A. Technical**

23. Detailed surveys and investigations were carried out before the design of the sewerage system in Zugdidi. The locations of the STPs in Zugdidi and Mestia were determined based on the topography, treated effluent discharge point, land availability, and environmental and climate change considerations. The STPs will be constructed above the high flood level to mitigate flood risk. Peak winds are considered in the structural design of the STPs. The construction material will be resistant to withstand extreme climatic conditions.

#### **B. Economic and Financial**

24. Economic analysis was based on the consideration of project alternatives, the results of the socioeconomic survey, and available national statistics. The benefits arising from project 5 were evaluated and measured against the without-project scenario. Project 5 is economically viable, as the economic internal rate of return in the base case exceeds the economic opportunity cost of capital assumed at 12% (at the current sewerage project level of 12.09% for the sewerage project in Mestia and 12.03% for Zugdidi). The financial returns from project 5 were evaluated. Project 5 is financially not viable, as recovery of large-size investments by setting affordable water tariffs to small consumer base is difficult. Since no non-tariff revenues exist, the government needs to increase annual tariffs and should make available viability gap funding as presented in the financial analysis. However, the project can be justified as it has an adequate economic rate of return. In addition, the tariff revenues are sufficient to meet the O&M cost in the long run, ensuring sustainability of the assets. To achieve financial sustainability, project 5 will continue to focus on (i) providing adequate information to the GNEWRC for tariff determination, based on cost recovery principles and affordability for consumers;<sup>12</sup> (ii) improving service delivery and achieving 95% revenue collection by the end of 2019; and (iii) the government's provision of viability gap funding to ensure UWSCG achieves an operating ratio of at least 1. Detailed economic and financial assessments for Mestia and Zugdidi are in Appendix 7.

#### **C. Governance**

25. Public financial management reform is a government priority, and the Budget Code, adopted in 2009, streamlined the budgeting process. The basic data and directions document

<sup>11</sup> ADB approved bidding documents for works in April 2015 for project 4.

<sup>12</sup> ADB. 2010. Technical Assistance for *Developing an Urban Water Supply and Sanitation Strategy and Regulatory Framework* for Georgia. Manila. Socioeconomic surveys were conducted and affordability analysis was done.

became legally binding and is being followed by government agencies since 2009. A financial management assessment<sup>13</sup> has indicated that the financial performance of UWSCG from FY2011 to FY2013 was weak.<sup>14</sup> UWSCG's financial performance is expected to improve with interventions from the management consultant on an improved management information system, revenue enhancement measures, and accounting and auditing systems.

26. Though UWSCG has improved its performance on tariff collection,<sup>15</sup> its dependence on government subsidies is high, at about 30% of total revenue (GEL14.12 million in 2012, and GEL12.50 million in 2013). ADB is helping the government to strengthen the regulatory function, including tariff setting, for cost recovery. Recruitment of consultants to strengthen the regulatory function has been considerably delayed by frequent changes in the MRDI, but the same was initiated in February 2015.<sup>16</sup> UWSCG is required to achieve financial stability by attaining an operating ratio of 1 by the end of 2019. Until the tariff increases sufficiently for UWSCG to meet the operating ratio, the government will provide funds to UWSCG to meet the operating ratio of 1. UWSCG submitted its business plan for the financial years of 2015 to 2017 in December 2014. It was revised in May 2015, taking into consideration ADB's comments.

27. A procurement assessment indicated that UWSCG has experienced procurement specialists. Recognizing the requirement early in project preparation, ADB supported UWSCG's efforts to procure consulting services and goods through advance actions under projects 1, 2, and 4. UWSCG's staff capacity has significantly improved through on-the-job training of ongoing contract awards under earlier projects.

28. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government, the MRDI, and UWSCG. The specific policy requirements and supplementary measures are described in the PAM.

29. Project 5 intends to maximize transparency by communicating relevant project information to stakeholders by various means. UWSCG will disclose all key project-related information (including the scope, financial expenditure, institutional arrangements, and safeguard reports such as IEEs) and procurement-related information on its website. When the new water and sewer connections are provided, or when UWSCG introduces new tariffs and other charges, it will conduct extensive consultations, and establish communication programs to ensure the effective participation, understanding, and support of the stakeholders.

#### **D. Poverty, Social, and Gender Dimensions**

30. Project 5 will improve living conditions and the economic and urban environment of Zugdidi and Mestia. It will directly benefit 20,600 households in Zugdidi and a population of 6,500 in Mestia (including the floating tourist population). The project will benefit a population of more than 50% females, including the poor (50% in Mestia and 30% in Zugdidi), the internally displaced (31% of the population of Zugdidi), and households headed by women. Poverty and

<sup>13</sup> The financial management assessment (2014) is in the PAM.

<sup>14</sup> The independent auditor of UWSCG has given a Disclaimer of Opinion for FY2013 at entity level audit, as the valuation of assets is not compliant with International Financial Reporting Standards and not recorded in books. However, UWSCG has submitted audited project financial statements regularly for all previous tranches, which were found to be acceptable by ADB.

<sup>15</sup> UWSCG tariff collection: GEL18.043 million (2010), GEL26.878 million (2012), GEL33.763 million (2013). Tariff collection efficiency has improved: 86% (2010), 94% (2012), and 96% (2013).

<sup>16</sup> The objective of the consultancy assignment is to assist the government in capacity development of the GNEWRC by providing tariff setting methodology and relevant training for its staff. The assignment will include developing the necessary rules and standards for regulating water utilities, and starting performance monitoring of major water utilities including UWSCG.

social assessments indicate that women strongly support the investment program. Women perceive that it will improve their living environment, create employment, and reduce the incidence of waterborne illnesses. In internally displaced people's villages, in particular, several families share one common toilet—this is insufficient to promote good sanitation norms.<sup>17</sup> Gender features in the project 4 GAP that will continue to be implemented under project 5 will include women in (i) consultation; (ii) sex disaggregation of the customer database; (iii) encouraging female recruitment in customer care units to be staffed by at least 30% women in the service centers; and (iv) conducting awareness programs on health, hygiene, and customer rights.

## **E. Safeguards**

31. **Environment.** An environmental assessment and review framework, updated in May 2015, was endorsed and used to prepare two IEEs for Zugdidi and Mestia.<sup>18</sup> The environmental assessment established that project 5 is category B, as it will not have significant irreversible environmental impacts during or after construction. Most of the predicted impacts are common during construction, such as dust, noise, vibration, and other disturbance to residents' livelihoods and traffic, as well as discharge of treated sewage and sludge disposal during operation of the STPs in Zugdidi and Mestia. UWSCG will require contractors to prepare and implement site-specific EMPs, which will be endorsed by the construction supervision consultants and approved by UWSCG. Impacts during the operation stages of the STPs will be managed through design–build–operate contracts to ensure the effluent discharge meets national environmental standards. While UWSCG has a safeguard specialist under the IPMO, the institutional capacity of UWSCG and the local service centers in Zugdidi and Mestia needs to be strengthened through on-the-job training with the help of a consultant to improve (i) the quality of the environmental safeguard documents, and (ii) monitoring and reporting on implementation of the EMPs.<sup>19</sup> The climate change impact on the project is high, as the sites are in high flood zones owing to heavy rainfall events, and snow in mountainous areas. Climate risk mitigation measures have been considered in the project design, including site selection.

32. **Involuntary resettlement.** On 17 December 2010, the government adopted a land acquisition and resettlement framework, upon which social safeguards compliance for all projects is based. Involuntary resettlement due diligence was conducted to determine the impacts, and project 5 is classified as category C. The project facilities are being built on government-owned sites. Further, no people are or have been living or farming informally on these lands, and no outstanding claims exist on this land. Any unforeseen temporary or permanent impacts during construction will be addressed under the provisions of the land acquisition and resettlement framework.

33. **Indigenous peoples.** The investment program area does not include communities that may be defined as indigenous peoples under ADB's Safeguard Policy Statement (2009). Consequently, the indigenous peoples' impact classification for all projects is C.

<sup>17</sup> Updated summary of poverty reduction and social strategy is attached in Appendix 8.

<sup>18</sup> The IEEs were disclosed on the ADB website on 4 June 2015.

<sup>19</sup> An environmental consultant is appointed in the Georgia Resident Mission under TA8663: Sustainable Environmental Management of Projects in Central and West Asia.

## F. Risks and Mitigating Measures

34. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan (Appendix 10). The integrated benefits and impacts of the project are expected to outweigh the costs.

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
<b>Financial sustainability.</b> Current water sector tariffs do not cover O&M, adversely affecting service delivery.	ADB to support GNEWRC through policy dialogue and training to improve tariff-setting processes. GNEWRC to determine tariffs based on cost recovery principles and affordability. Government to provide viability gap funding in its annual budget to ensure that UWSCG achieves an operating ratio of at least 1 as per UWSCG's business plan.
<b>Financial sustainability.</b> Given suboptimal regulations, policies, and oversight, UWSCG lacks the capacity necessary to set, manage, and maintain service delivery standards and ensure economic efficiency.	ADB supported a management consultancy contract, and asset mapping of UWSCG under the investment program. Annual project programming to be prepared by UWSCG during project implementation to assist the government to identify counterpart funds. The government to provide counterpart funds in the annual budget.

ADB = Asian Development Bank, GNEWRC = Georgia National Energy and Water Supply Regulatory Commission, O&M = operation and maintenance, UWSCG = United Water Supply Company of Georgia.

Source: Asian Development Bank.

## G. Risk Categorization

35. Project 5 is a low-risk project as it has the following features: (i) the loan amount does not exceed \$200 million, (ii) a sound record of ADB's previous experience in the sector in Georgia, (iii) reasonable executing agency capacity in terms of externally financed project administration, and (iv) safeguard categorization other than A.

## V. ASSURANCES AND CONDITIONS

36. The government and UWSCG have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

37. The government and UWSCG have agreed with ADB on certain covenants for the project, which are set forth in the loan agreements and project agreement.

38. No withdrawal will be made under the fifth tranche of the MFF until relending agreements, in form and substance satisfactory to ADB, have been entered into by the government and UWSCG.

## VI. RECOMMENDATION

39. On the basis of the approval by ADB's Board of Directors for the provision of loans under the multitranchise financing facility in an aggregate principal amount not exceeding \$500,000,000 to Georgia for the Urban Services Improvement Investment Program, it is recommended that the President approve the proposed tranche as described in para. 18 and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements for the proposed tranche.

## DESIGN AND MONITORING FRAMEWORK FOR TRANCHE 5

**Impacts the Project is aligned with:**

Improved health of residents in the urban centers of Zugdidi and Mestia (Water Supply and Sanitation Sector Development Plan 2011-2020)

<b>Project Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<b>Outcome</b> Sanitation services improved in urban centers of Zugdidi and Mestia	a. Residents' access to safe sanitation increased from Nil in 2013 to 100% in 2018 for Zugdidi through provision of sewer connections to all existing 20,600 households, and a sewage treatment plant commissioned in Mestia for safe disposal of sewage by 2018  b. 100% households headed by women in the region covered by 2018	a. National statistics on water supply quality and effluent discharge from MEPNR, MA, and UWSCG  b. Annual sex disaggregated socioeconomic surveys undertaken as part of the PPMS to determine public satisfaction with the quality of water supply and sanitation	National Government's failure to progressively increase water and wastewater tariffs and to provide viability gap funding on time during project operation
<b>Outputs</b> 1. Infrastructure Improvement: Sewerage and sanitation system efficiency improved through construction and expansion	1a. About 178 km of sewer lines constructed in Zugdidi by 2018  1b. About 23 sewage pumping stations constructed in Zugdidi, and sewage pumps operating daily and discharging sewage to treatment plants by 2018  1c. Sewage treatment plants of capacity about 11 mld in Zugdidi and about 1.5 mld in Mestia constructed by 2018 to treat and safely discharge of sewage	1a. to 1c. - Semi-annual progress reports prepared by UWSCG, PPMS reports prepared by UWSCG, project component completion and commissioning certificates of construction supervision consultant	

2. Project Implementation Support: Public awareness program effectively implemented, information on hygiene and sanitation disseminated	<p>2a. Public awareness program to disseminate information on hygiene and sanitation targeting women as household managers rolled out in Zugdidi with the help of construction supervision consultants and investment program management office by 2017</p> <p>2b. Service center in Zugdidi having a customer care unit staffed by at least 30% women by 2017 that informs and educates the public about water, hygiene, and sanitation</p>	2a. to 2b. - Semiannual progress reports prepared by UWSCG, PPMS reports prepared by UWSCG, UWSCG annual work plans	
---	--	---	--

### Key Activities with Milestones

#### 1. Component 1: Infrastructure Improvement

- 1.1 Sewerage system constructed in Zugdidi (December 2018).
- 1.2 Sewage treatment plants in Zugdidi and Mestia constructed (December 2018).

#### 2. Component 2: Project Implementation Support

- 2.1 Construction supervision consultants appointed (December 2015).
- 2.2 Sex-disaggregated consumer database for targeted marketing campaigns in Zugdidi created (December 2015).
- 2.3 Information awareness campaigns on water, hygiene and sanitation practices, consumer rights, complaint mechanisms in Zugdidi conducted (December 2017).
- 2.4 GAP implemented (December 2017).

### Inputs

#### Loan

ADB: \$75 million from OCR (\$43 million) and ADF(\$32 million)  
Government: \$15 million

### Assumptions for Partner Financing

Not Applicable

ADB = Asian Development Bank, ADF = Asian Development Fund; GAP = gender action plan, km = kilometer, MA = Ministry of Agriculture, MEPNR = Ministry of Environment Protection and Natural Resources, mld = million liters per day, OCR = ordinary capital resources, PPMS = project performance management system, UWSCG = United Water Supply Company of Georgia LLC.

Source: Asian Development Bank.

---

LOAN NUMBER \_\_\_\_-GEO

LOAN AGREEMENT  
(Ordinary Operations)

(Urban Services Improvement Investment Program – Project 5)

between

GEORGIA

and

ASIAN DEVELOPMENT BANK

DATED \_\_\_\_\_

---

GEO 43405

**LOAN AGREEMENT  
(Ordinary Operations)**

LOAN AGREEMENT dated \_\_\_\_\_ between GEORGIA  
("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

WHEREAS

(A) by the FFA dated 1 March 2011, as amended, between the Borrower and ADB, ADB has agreed to provide a multitranche financing facility to the Borrower for purposes of financing projects under the Urban Services Improvement Investment Program;

(B) by a periodic financing request dated 30 March 2015, the Borrower has applied to ADB for (i) a loan from ADB's Special Funds resources and (ii) a loan from ADB's ordinary capital resources for the purposes of the Project described in Schedule 1 to the Special Operations Loan Agreement;

(C) by an agreement between the Borrower and ADB, ADB has agreed to lend to the Borrower from ADB's Special Funds resources an amount in various currencies equivalent to twenty three million five thousand Special Drawing Rights (SDR23,005,000) for the purposes of the Project;

(D) the Project will be carried out by UWSCG as the implementing agency, under the oversight of MRDI as the executing agency, and for this purpose the Borrower will make available to UWSCG the proceeds of the Special Operations Loan and the loan provided herein in accordance with terms and conditions satisfactory to ADB; and

(E) ADB has agreed to make a loan to the Borrower from ADB's ordinary capital resources upon the terms and conditions set forth herein and in the Project Agreement between ADB and UWSCG;

NOW THEREFORE the parties hereto agree as follows:

**ARTICLE I**

**Loan Regulations; Definitions**

Section 1.01. All the provisions of the Ordinary Operations Loan Regulations Applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001 ("Loan Regulations"), are hereby made applicable to this Loan Agreement with the same force and effect as if they were fully set forth herein, subject, however, to the following modifications:



- (a) Section 2.01(50) is deleted and the following is substituted therefor:

"Project Agreement" means the Project Agreement between ADB and UWSCG.

- (b) The term "Project Executing Agency" appearing in Sections 7.04(b), 9.01(d), 9.01(f), 9.01(k), 10.01(c) and 10.02(c) of the Loan Regulations shall be substituted by the term "UWSCG".
- (c) Section 3.03 is deleted and the following is substituted therefor:

**Commitment Charge; Credit; Maturity Premium.** (a)

The Borrower shall pay a commitment charge on the unwithdrawn amount of the Loan at the rate and on the terms specified in the Loan Agreement.

(b) ADB shall provide to the Borrower a credit at the rate specified in the Loan Agreement, which credit shall remain fixed for the term of the Loan. ADB shall apply the credit against the interest payable by the Borrower.

(c) The Borrower shall pay a maturity premium at the rate specified in the Loan Agreement, which maturity premium shall remain fixed for the term of the Loan. ADB shall add the maturity premium to the interest payable by the Borrower.

- (d) Section 3.06 is deleted and the following is substituted therefor:

**Rebate.**

(a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be reduced, ADB shall provide a Rebate to any Borrower with an outstanding Loan on which a higher Fixed Spread is applicable. The amount of the Rebate shall be determined by multiplying (i) the difference between the Fixed Spread applicable to the outstanding Loan and the Fixed Spread that will be applied to new Loans (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the lower Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB achieving savings, ADB shall provide a Rebate to the Borrower. The amount of the Rebate shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the

Funding Cost Margin was calculated. ADB shall apply the amount of the Rebate against the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

- (e) Section 3.07 is deleted and the following is substituted therefor:

**Surcharge.** (a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be increased, any Borrower with an outstanding Loan on which a lower Fixed Spread is applicable shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the difference between the Fixed Spread that will be applied to new Loans and the Fixed Spread applicable to the outstanding Loan (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the higher Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB incurring additional costs, the Borrower shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall add the amount of the Surcharge to the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

Section 1.02. Wherever used in this Loan Agreement, the several terms defined in the Loan Regulations and in the Special Operations Loan Agreement have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Loan Agreement have the following meanings:

(a) "Special Operations Loan" means the loan referred to in recital (C) of this Loan Agreement;

(b) "Special Operations Loan Agreement" means the agreement referred to in recital (C) of this Loan Agreement; and

(c) "Subsidiary Loan Agreement" means the agreement among the Borrower, MRDI and UWSCG referred to in Section 3.01(a) of this Loan Agreement.

## ARTICLE II

### The Loan

Section 2.01. (a) ADB agrees to lend to the Borrower from ADB's ordinary capital resources an amount of forty three million Dollars (\$43,000,000), as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.06 of this Loan Agreement.

(b) The Loan has a principal repayment period of 11 years, and a grace period as defined in subsection (c) hereinafter.

(c) The term "grace period" as used in subsection (b) hereinabove means the period prior to the first Principal Payment Date in accordance with the amortization schedule set forth in Schedule 1 to this Loan Agreement.

Section 2.02. The Borrower shall pay to ADB interest on the principal amount of the Loan withdrawn and outstanding from time to time at a rate for each Interest Period equal to the sum of:

- (a) LIBOR;
- (b) 0.60% as provided by Section 3.02 of the Loan Regulations less a credit of 0.10% as provided by Section 3.03 of the Loan Regulations; and
- (c) a maturity premium of 0.20% as provided by Section 3.03 of the Loan Regulations.

Section 2.03. The Borrower shall pay a commitment charge of 0.15% per annum. Such charge shall accrue on the full amount of the Loan (less amounts withdrawn from time to time), commencing 60 days after the date of this Loan Agreement.

Section 2.04. Interest and other charges on the Loan shall be payable semiannually on 15 March and 15 September in each year.

Section 2.05. The Borrower shall repay the principal amount of the Loan withdrawn from the Loan Account in accordance with the provisions of Schedule 1 to this Loan Agreement.

Section 2.06. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management:

- (i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, whether withdrawn and outstanding or unwithdrawn, to an Approved Currency;
- (ii) a change of the interest rate basis applicable to all or any portion of the principal amount of the Loan withdrawn and

outstanding from a Floating Rate to a Fixed Rate, or vice versa; and

- (iii) the setting of limits on the Floating Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on said Floating Rate.

(b) Any conversion requested pursuant to subsection (a) hereinabove that is accepted by ADB shall be considered a "Conversion", as defined in Section 2.01(6) of the Loan Regulations, and shall be effected in accordance with the provisions of Article V of the Loan Regulations and the Conversion Guidelines.

### ARTICLE III

#### Use of Proceeds of the Loan

Section 3.01. (a) The Borrower shall relend the proceeds of the Loan to UWSCG under a Subsidiary Loan Agreement upon terms and conditions satisfactory to ADB. Except as ADB may otherwise agree, the terms for relending the proceeds of the Loan shall include interest at the same per annum rate as is payable by the Borrower to ADB under this Loan Agreement (inclusive of foreign exchange risk) and a repayment period of 24 years including a grace period of 13 years.

(b) The Borrower shall cause the proceeds of the Loan to be applied to the financing of expenditures on the Project in accordance with the provisions of this Loan Agreement and the Project Agreement.

Section 3.02. The proceeds of the Loan shall be allocated and withdrawn in accordance with the provisions of Schedule 2 to this Loan Agreement, as such Schedule may be amended from time to time by agreement between the Borrower and ADB.

Section 3.03. Except as ADB may otherwise agree, the Borrower shall procure, or cause to be procured, the items of expenditure to be financed out of the proceeds of the Loan in accordance with the provisions of Schedule 4 to the Special Operations Loan Agreement. ADB may refuse to finance a contract where any such item has not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 3.04. Except as ADB may otherwise agree, the Borrower shall cause all items of expenditure financed out of the proceeds of the Loan to be used exclusively in the carrying out of the Project.

Section 3.05. The Loan Closing Date for the purposes of Section 9.02 of the Loan Regulations shall be 30 June 2019 or such other date as may from time to time be agreed between the Borrower and ADB.

## ARTICLE IV

### Particular Covenants

Section 4.01. (a) The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound applicable technical, financial, business, and development practices.

(b) In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 5 to the Special Operations Loan Agreement.

Section 4.02. The Borrower shall make available, or cause to be made available, promptly as needed, and on terms and conditions acceptable to ADB, the funds, facilities, services, land and other resources, as required, in addition to the proceeds of the Loan, for the carrying out of the Project.

Section 4.03. The Borrower shall enable ADB's representatives to inspect the Project, the Works, and any relevant records and documents.

Section 4.04. ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

Section 4.05. The Borrower shall take all actions which shall be necessary on its part to enable UWSCG to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.

Section 4.06. (a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan.

(b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of ADB.

## ARTICLE V

### Effectiveness

Section 5.01. The following is specified as an additional condition to the effectiveness of this Loan Agreement for the purposes of Section 10.01(f) of the Loan Regulations: the Special Operations Loan Agreement has been duly authorized, ratified, executed and delivered on behalf of the Borrower and all conditions precedent to its effectiveness (other than a condition requiring the effectiveness of this Loan Agreement) have been fulfilled.

Section 5.02. The following is specified as an additional matter, for the purposes of Section 10.02(d) of the Loan Regulations, to be included in the opinion or opinions to be furnished to ADB: that the Special Operations Loan Agreement has been duly authorized, ratified, executed and delivered on behalf of the Borrower and is legally binding on the Borrower in accordance with its terms.

Section 5.03. A date 60 days after the date of this Loan Agreement is specified for the effectiveness of this Loan Agreement for the purposes of Section 10.04 of the Loan Regulations.

## ARTICLE VI

### Miscellaneous

Section 6.01. The Minister of Finance of the Borrower is designated as representative of the Borrower for the purposes of Section 12.02 of the Loan Regulations.

Section 6.02. The following addresses are specified for the purposes of Section 12.01 of the Loan Regulations:

#### For the Borrower

Ministry of Finance  
16 Gorgasali Street, 0114  
Tbilisi, Georgia

Facsimile Number:

(99532) 2262 423.

#### For ADB

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines

Facsimile Numbers:

(632) 636-2444  
(632) 636-2301.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names as of the day and year first above written and to be delivered at the principal office of ADB.

GEORGIA

By \_\_\_\_\_  
[Name and designation]

ASIAN DEVELOPMENT BANK

By \_\_\_\_\_  
[Name and designation]

**SCHEDULE 1****Amortization Schedule****(Urban Services Improvement Investment Program – Project 5)**

1. The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date (Installment Share). If the proceeds of the Loan shall have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined by ADB by multiplying: (a) the total principal amount of the Loan withdrawn and outstanding as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayment amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

Payment Due	Installment Share (Expressed as a %)
15 September 2028	4.545455
15 March 2029	4.545455
15 September 2029	4.545455
15 March 2030	4.545455
15 September 2030	4.545455
15 March 2031	4.545455
15 September 2031	4.545455
15 March 2032	4.545455
15 September 2032	4.545455
15 March 2033	4.545455
15 September 2033	4.545455
15 March 2034	4.545455
15 September 2034	4.545455
15 March 2035	4.545455
15 September 2035	4.545455
15 March 2036	4.545455
15 September 2036	4.545455
15 March 2037	4.545455
15 September 2037	4.545455
15 March 2038	4.545455
15 September 2038	4.545455
15 March 2039	4.545445
<b>Total</b>	<b>100.000000</b>



Schedule 1

2. If the proceeds of the Loan shall not have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined as follows:

(a) To the extent that any proceeds of the Loan shall have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the amount withdrawn and outstanding as of such date in accordance with paragraph 1 of this Schedule.

(b) Any withdrawal made after the first Principal Payment Date shall be repaid on each Principal Payment Date falling after the date of such withdrawal in amounts determined by ADB by multiplying the amount of each such withdrawal by a fraction, the numerator of which shall be the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date (the Original Installment Share) and the denominator of which shall be the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such repayment amounts to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

3. Withdrawals made within two calendar months prior to any Principal Payment Date shall, for the purposes solely of calculating the principal amounts payable on any Principal Payment Date, be treated as withdrawn and outstanding on the second Principal Payment Date following the date of withdrawal and shall be repayable on each Principal Payment Date commencing with the second Principal Payment Date following the date of withdrawal.

4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the withdrawn principal amount of the Loan to an Approved Currency, the amount so converted in said Approved Currency that shall be repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by ADB by multiplying such amount in its currency of denomination immediately prior to said Conversion by either: (i) the exchange rate that reflects the amounts of principal in said Approved Currency payable by ADB under the Currency Hedge Transaction relating to said Conversion; or (ii) if ADB so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.

5. If the principal amount of the Loan withdrawn and outstanding from time to time shall be denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency, so as to produce a separate amortization schedule for each such amount.

**SCHEDULE 2****Allocation and Withdrawal of Loan Proceeds**General

1. The table attached to this Schedule sets forth the Categories of items of expenditure to be financed out of the proceeds of the Loan and the allocation of the Loan proceeds to each such Category ("Table"). (Reference to "Category" in this Schedule is to a Category of the Table).

Basis for Withdrawal from the Loan Account

2. Except as ADB may otherwise agree, the proceeds of the Loan shall be disbursed on the basis of the withdrawal percentage for each item of expenditure set forth in the Table.

Interest and Commitment Charges

3. The amount allocated to Category 3 is for financing interest and commitment charges on the Loan during the implementation period of the Project. ADB shall be entitled to withdraw from the Loan Account and pay to itself, on behalf of the Borrower, the amounts required to meet payments, when due, of such interest and commitment charges.

Reallocation

4. Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the Table,

(a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, by notice to the Borrower, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures, and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and

(b) if the amount of the Loan allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, by notice to the Borrower, reallocate such excess amount to any other Category.

Disbursement Procedures

5. Except as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook.

Retroactive Financing

6. Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Works and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount.

Condition for Withdrawals from Loan Account

7. Notwithstanding any other provision of this Loan Agreement, no withdrawals shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of the Borrower, MRDI and UWSCG, and is legally binding upon such parties in accordance with its terms.

**TABLE**

<b>ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Urban Services Improvement Investment Program – Project 5)</b>			
<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (\$) Category</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Works	35,835,667	84.75% of total expenditure claimed*
2	Consulting Services	2,635,000	84.75% of total expenditure claimed
3	Interest and Commitment Charges	1,204,000	100% of amounts due
4	Unallocated	3,325,333	
	Total	43,000,000	

\* Financing allocated to the Works item under the Special Operations Loan Agreement will be utilized first at 84.75% of every claim until it has been disbursed in full. Thereafter, financing allocated to the Works item under this Loan Agreement will be utilized at 84.75% of every claim.

---

LOAN NUMBER \_\_\_\_-GEO (SF)

LOAN AGREEMENT  
(Special Operations)

(Urban Services Improvement Investment Program – Project 5)

between

GEORGIA

and

ASIAN DEVELOPMENT BANK

DATED \_\_\_\_\_

---

GEO 43405

**LOAN AGREEMENT  
(Special Operations)**

LOAN AGREEMENT dated \_\_\_\_\_ between GEORGIA ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

**WHEREAS**

(A) by the FFA dated 1 March 2011, as amended, between the Borrower and ADB, ADB has agreed to provide a multitranche financing facility to the Borrower for purposes of financing projects under the Urban Services Improvement Investment Program;

(B) by a periodic financing request dated 30 March 2015, the Borrower has applied to ADB for (i) a loan from ADB's Special Funds resources and (ii) a loan from ADB's ordinary capital resources for the purposes of the Project described in Schedule 1 to this Loan Agreement;

(C) by an agreement between the Borrower and ADB, ADB has agreed to lend to the Borrower from ADB's ordinary capital resources an amount of forty three million Dollars (\$43,000,000) for the purposes of the Project;

(D) the Project will be carried out by UWSCG as the implementing agency, under the oversight of MRDI as the executing agency, and for this purpose the Borrower will make available to UWSCG the proceeds of the Ordinary Operations Loan and the loan provided for herein in accordance with terms and conditions satisfactory to ADB; and

(E) ADB has agreed to make a loan to the Borrower from ADB's Special Funds resources upon the terms and conditions set forth herein and in the Project Agreement between ADB and UWSCG.

NOW THEREFORE the parties agree as follows:

**ARTICLE I**

**Loan Regulations; Definitions**

Section 1.01. All the provisions of the Special Operations Loan Regulations of ADB, dated 1 January 2006 ("Loan Regulations"), are hereby made applicable to this Loan Agreement with the same force and effect as if they were fully set forth herein, subject to the following modifications:

(a) Section 2.01(25) is deleted and the following is substituted therefor:

"Project Agreement" means the Project Agreement between ADB and UWSCG.

- (b) The term "the Project Executing Agency" appearing in Sections 6.01(a), 8.01(d), 8.01(f), 8.01(k), 9.01(c) and 9.02(c) of the Loan Regulations shall be substituted by the term "UWSCG".

Section 1.02. Wherever used in this Loan Agreement, the several terms defined in the Loan Regulations have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Loan Agreement have the following meanings:

- (a) "Consulting Guidelines" means the Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers (2013, as amended from time to time);
- (b) "Consulting Services" means the services to be financed out of the proceeds of the Loans as described in subparagraph 3(c) of Schedule 1 to this Loan Agreement;
- (c) "EARF" means the Environmental Assessment and Review Framework for the Investment Program, including any update thereto, and agreed between the Borrower and ADB and incorporated by reference in the FFA;
- (d) "EMP" means each Environmental Management Plan for the Project, including any update thereto, incorporated in an IEE;
- (e) "Environmental Safeguards" means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS;
- (f) "Facility" means the multitranche financing facility provided by ADB to the Borrower for purposes of financing projects under the Investment Program;
- (g) "FFA" means the framework financing agreement dated 1 March 2011, as amended, between ADB and the Borrower with respect to the Facility;
- (h) "FY" means the fiscal year of UWSCG;
- (i) "GAP" means the Gender Action Plan for the Project, including any update thereto;
- (j) "GNEWSRC" means the Georgia National Energy and Water Supply Regulatory Commission of the Borrower or any successor thereto;
- (k) "IEE" means each Initial Environmental Examination for the Project, including any update thereto, prepared and submitted by the Borrower pursuant to the requirements set forth in the EARF and cleared by ADB;
- (l) "Investment Program" means the Urban Services Improvement Investment Program;
- (m) "Loan Disbursement Handbook" means ADB's Loan Disbursement Handbook (2015, as amended from time to time);

- (n) "Loans" means the Loan and the Ordinary Operations Loan;
- (o) "MRDI" means the Ministry of Regional Development and Infrastructure of the Borrower;
- (p) "Ordinary Operations Loan" means the loan referred to in recital (C) of this Loan Agreement;
- (q) "Ordinary Operations Loan Agreement" means the agreement referred to in recital (C) of this Loan Agreement; and
- (r) "PAM" means the project administration manual for the Project dated 23 July 2015 and agreed between the Borrower and ADB, as updated from time to time in accordance with the respective administrative procedures of the Borrower and ADB;
- (s) "PFR" means the periodic financing request submitted or to be submitted by the Borrower for the purposes of each loan under the Facility, and, for the purpose of this Loan Agreement, means the periodic financing request dated 30 March 2015;
- (t) "Procurement Guidelines" means ADB's Procurement Guidelines (2015, as amended from time to time);
- (u) "Procurement Plan" means the procurement plan for the Project dated 23 July 2015 and agreed between the Borrower and ADB, as updated from time to time in accordance with the Procurement Guidelines, the Consulting Guidelines, and other arrangements agreed with ADB;
- (v) "Project Executing Agency", for the purposes of, and within the meaning of, the Loan Regulations, means MRDI or any successor thereto acceptable to ADB, which is responsible for carrying out the Project;
- (w) "Safeguards Monitoring Report" means each report prepared and submitted by the Borrower to ADB that describes progress with implementation of, and compliance with, the EMPs, including any corrective and preventative actions;
- (x) "SPS" means ADB's Safeguard Policy Statement (2009);
- (y) "Subsidiary Loan Agreement" means the agreement among the Borrower, MRDI and UWSCG referred to in Section 3.01(a) of this Loan Agreement;
- (z) "UWSCG" means the United Water Supply Company of Georgia Limited Liability Company established under the laws and regulations of the Borrower with its current registered address at 76b, Vazha Pshavela Ave., Tbilisi 0186, Georgia, or any successor thereto acceptable to ADB;
- (aa) "Works" means construction or civil works to be financed out of the proceeds of the Loans, including services such as drilling or mapping, and project related services that are provided as part of a single responsibility or turnkey contract, but excluding Consulting Services; and
- (bb) "WSS" means water supply and sanitation.



## ARTICLE II

### The Loan

Section 2.01. ADB agrees to lend to the Borrower from ADB's Special Funds resources an amount in various currencies equivalent to twenty three million five thousand Special Drawing Rights (SDR23,005,000).

Section 2.02. (a) The Borrower shall pay to ADB an interest charge at the rate of 2% per annum during the grace period and thereafter on the amount of the Loan withdrawn from the Loan Account and outstanding from time to time.

(b) The term "grace period" as used in subsection (a) hereinabove means the period prior to the first Principal Payment Date in accordance with the amortization schedule set forth in Schedule 2 to this Loan Agreement.

Section 2.03. The interest charge and any other charge on the Loan shall be payable semiannually on 15 March and 15 September in each year.

Section 2.04. The Borrower shall repay the principal amount of the Loan withdrawn from the Loan Account in accordance with the amortization schedule set forth in Schedule 2 to this Loan Agreement.

Section 2.05. The currency of repayment of the principal amount of the Loan and the currency of payment of the interest charge for the purposes of Sections 4.03(a) and 4.04 of the Loan Regulations shall be Dollar.

## ARTICLE III

### Use of Proceeds of the Loan

Section 3.01. (a) The Borrower shall relend the proceeds of the Loan to UWSCG under a Subsidiary Loan Agreement upon terms and conditions satisfactory to ADB. Except as ADB shall otherwise agree, the terms for relending the proceeds of the Loan shall include interest charge at the rate of 2% per annum during the grace period and thereafter and a repayment period of 25 years including a grace period of 5 years. Foreign exchange risk shall be borne by UWSCG.

(b) The Borrower shall cause the proceeds of the Loan to be applied to the financing of expenditures on the Project in accordance with the provisions of this Loan Agreement and the Project Agreement.

Section 3.02. The proceeds of the Loan shall be allocated and withdrawn in accordance with the provisions of Schedule 3 to this Loan Agreement, as such Schedule may be amended from time to time by agreement between the Borrower and ADB.

Section 3.03. Except as ADB may otherwise agree, the Borrower shall procure, or cause to be procured, the items of expenditure to be financed out of the proceeds of the Loan in accordance with the provisions of Schedule 4 to this Loan Agreement.

Section 3.04. Except as ADB may otherwise agree, the Borrower shall cause all items of expenditure financed out of the proceeds of the Loan to be used exclusively in the carrying out of the Project.

Section 3.05. Withdrawals from the Loan Account in respect of Works and Consulting Services shall be made only on account of expenditures relating to:

- (a) Works and Consulting Services which are supplied from such member countries of ADB as shall have been specified by ADB from time to time as eligible sources for procurement; and
- (b) Works and Consulting Services which meet such other eligibility requirements as shall have been specified by ADB from time to time.

Section 3.06. The Loan Closing Date for the purposes of Section 8.02 of the Loan Regulations shall be 30 June 2019 or such other date as may from time to time be agreed between the Borrower and ADB.

## ARTICLE IV

### Particular Covenants

Section 4.01. In the carrying out the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 5 to this Loan Agreement.

Section 4.02. The Borrower shall enable ADB's representatives to inspect the Project, the Works, and any relevant records and documents.

Section 4.03. ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on such financial statements within 30 days of the date of their receipt by posting them on ADB's website.

Section 4.04. The Borrower shall take all actions which shall be necessary on its part to enable UWSCG to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.

Section 4.05. (a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan.

(b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended or waived without the prior concurrence of ADB.

## ARTICLE V

### Effectiveness

Section 5.01. The following is specified as an additional condition to the effectiveness of this Loan Agreement for the purposes of Section 9.01(f) of the Loan Regulations: the Ordinary Operations Loan Agreement has been duly authorized, ratified, executed and delivered on behalf of the Borrower and all conditions precedent to its effectiveness (other than a condition requiring the effectiveness of this Loan Agreement) have been fulfilled.

Section 5.02. The following is specified as an additional matter, for the purposes of Section 9.02(d) of the Loan Regulations, to be included in the opinion or opinions to be furnished to ADB: that the Ordinary Operations Loan Agreement has been duly authorized, ratified, executed and delivered on behalf of the Borrower and is legally binding on the Borrower in accordance with its terms.

Section 5.03. A date 60 days after the date of this Loan Agreement is specified for the effectiveness of the Loan Agreement for the purposes of Section 9.04 of the Loan Regulations.

## ARTICLE VI

### Miscellaneous

Section 6.01. The Minister of Finance of the Borrower is designated as representative of the Borrower for the purposes of Section 11.02 of the Loan Regulations.

Section 6.02. The following addresses are specified for the purposes of Section 11.01 of the Loan Regulations:

#### For the Borrower

Ministry of Finance  
16 V. Gorgasali Street, 0114  
Tbilisi, Georgia

Facsimile Number:

(99532) 2262 423.

For ADB

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines

## Facsimile Numbers:

(632) 636-2444  
(632) 636-2301.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names as of the day and year first above written and to be delivered at the principal office of ADB.

GEORGIA

By \_\_\_\_\_  
[Name and Designation]

ASIAN DEVELOPMENT BANK

By \_\_\_\_\_  
[Name and Designation]

**SCHEDULE 1****Description of the Project**

1. The objective of the Investment Program is to improve water supply and sanitation services in the secondary towns of Georgia.

2. As a part of the Investment Program, the Project aims to improve sanitation services in the urban centers of Zugdidi and Mestia in Georgia.

3. The Project shall comprise:

Component 1 – Infrastructure Improvement

(a) construction of sewer lines, sewage pumping stations, and a sewage treatment plant in Zugdidi;

(b) construction of a sewage treatment plant in Mestia; and

Component 2 – Project Implementation Support

(c) provision of support to UWSCG for (i) project implementation and management, (ii) roll out of a public awareness program on water, hygiene and sanitation in Zugdidi, and (iii) establishment of customer care units in WSS service centers in Zugdidi, which are staffed by at least 30% women, that inform, educate, and communicate on water, hygiene, and sanitation.

4. The Project is more fully described in the PFR.

5. The Project is expected to be completed by 31 December 2018.

## SCHEDULE 2

### Amortization Schedule

(Urban Services Improvement Investment Program - Project 5)

<u>Date Payment Due</u>	<u>Payment of Principal (expressed in Special Drawing Rights)*</u>
15 September 2020	575,125.00
15 March 2021	575,125.00
15 September 2021	575,125.00
15 March 2022	575,125.00
15 September 2022	575,125.00
15 March 2023	575,125.00
15 September 2023	575,125.00
15 March 2024	575,125.00
15 September 2024	575,125.00
15 March 2025	575,125.00
15 September 2025	575,125.00
15 March 2026	575,125.00
15 September 2026	575,125.00
15 March 2027	575,125.00
15 September 2027	575,125.00
15 March 2028	575,125.00
15 September 2028	575,125.00
15 March 2029	575,125.00
15 September 2029	575,125.00
15 March 2030	575,125.00
15 September 2030	575,125.00
15 March 2031	575,125.00
15 September 2031	575,125.00
15 March 2032	575,125.00
15 September 2032	575,125.00
15 March 2033	575,125.00
15 September 2033	575,125.00
15 March 2034	575,125.00
15 September 2034	575,125.00
15 March 2035	575,125.00
15 September 2035	575,125.00
15 March 2036	575,125.00
15 September 2036	575,125.00
15 March 2037	575,125.00
15 September 2037	575,125.00

\* The arrangements for payment are subject to the provisions of Sections 3.04 and 4.03 of the Loan Regulations.

Schedule 2

15 March 2038	575,125.00
15 September 2038	575,125.00
15 March 2039	575,125.00
15 September 2039	575,125.00
15 March 2040	575,125.00
<b>TOTAL</b>	<b>23,005,000.00</b>

### SCHEDULE 3

#### Allocation and Withdrawal of Loan Proceeds

##### General

1. The table attached to this Schedule sets forth the Categories of items of expenditure to be financed out of the proceeds of the Loan and the allocation of the Loan proceeds to each such Category ("Table"). (Reference to "Category" in this Schedule is to a Category of the Table.)

##### Basis for Withdrawal from the Loan Account

2. Except as ADB may otherwise agree, the proceeds of the Loan shall be disbursed on the basis of the withdrawal percentage for each item of expenditure set forth in the Table.

##### Interest Charge

3. The amount allocated to Category 3 is for financing interest charge on the Loan during the implementation period of the Project.

##### Reallocation

4. Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the Table,

(a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, by notice to the Borrower, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures; and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and

(b) if the amount of the Loan allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, by notice to the Borrower, reallocate such excess amount to any other Category.

##### Disbursement Procedures

5. Except as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook.

##### Retroactive Financing

6. Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than



Schedule 3

12 months before the date of this Loan Agreement, in connection with Works and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount.

Condition for Withdrawals from Loan Account

7. Notwithstanding any other provision of this Loan Agreement, no withdrawal shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of, the Borrower, MRDI and UWSCG, and is legally binding upon the parties thereto in accordance with its terms.

TABLE

<b>ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS</b> <b>(Urban Services Improvement Investment Program – Project 5)</b>			
CATEGORY			ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing (SDR) Category	Basis of Withdrawal from the Loan Account
1	Works	20,582,000	84.75% of total expenditure claimed*
2	Interest Charge	644,000	100% of amounts due
3	Unallocated	1,779,000	
	Total	23,005,000	

\* Financing allocated to this item under this Loan Agreement will be utilized first at 84.75% of every claim until it has been disbursed in full. Thereafter, financing allocated to this item under the Ordinary Operations Loan Agreement will be utilized at 84.75% of every claim.

## SCHEDULE 4

### Procurement of Works and Consulting Services

#### General

1. The procurement of Works and Consulting Services shall be subject to and governed by the Procurement Guidelines, and the Consulting Guidelines, respectively.
2. All terms used in this Schedule and not otherwise defined in this Loan Agreement have the meanings provided in the Procurement Guidelines and/or the Consulting Guidelines, as applicable.

#### Works

3. Except as ADB may otherwise agree, Works shall only be procured on the basis of International Competitive Bidding.
4. The method of procurement is subject to, among other things, the detailed arrangements and threshold values set forth in the Procurement Plan. The Borrower may only modify the method of procurement or threshold values with the prior agreement of ADB, and modifications must be set out in updates to the Procurement Plan.

#### Conditions for Award of Contract

5. The Borrower shall cause UWSCG not to award any Works contract for the Project which involves environmental impacts until UWSCG has:
  - (a) obtained the final approval of the applicable IEE from the appropriate authority of the Borrower; and
  - (b) incorporated the relevant provisions from the applicable EMP into the Works contract.

#### Consulting Services

6. Except as ADB may otherwise agree, and except as set forth in the paragraph below, the Borrower shall cause UWSCG to apply quality- and cost-based selection for selecting and engaging Consulting Services.
7. The Borrower shall cause UWSCG to apply the following method for selecting and engaging the specified Consulting Services, in accordance with, among other things, the procedures set forth in the Procurement Plan: Least-Cost Selection for the auditing of financial statements for projects under the Investment Program.

Industrial or Intellectual Property Rights

8. (a) The Borrower shall cause UWSCG to ensure that all Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party.

(b) The Borrower shall cause UWSCG to ensure that all contracts for the procurement of Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.

9. The Borrower shall cause UWSCG to ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the Consulting Services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.

ADB's Review of Procurement Decisions

10. Contracts procured under international competitive bidding procedures and contracts for Consulting Services shall be subject to prior review by ADB, unless otherwise agreed between the Borrower and ADB and set forth in the Procurement Plan.

11. In the case of a contract for Works, which is subject to ADB's prior review, the Borrower shall cause UWSCG to seek ADB's prior approval of any modification or waiver of the terms and conditions of the contract, including:

- (a) granting an extension of the stipulated time for completion of a contract for a period of 1 month or more, or which is likely to require an extension of the Loan Closing Date; and
- (b) increases in aggregate of the original price by more than 5% (for the avoidance of doubt, such increase shall take into account any previous change under such contract).

12. In the case of a contract for Works, which is subject to ADB's post review, ADB shall review the required contract modification or waiver and respond to the Borrower as soon as practicable, but not later than 1 month after the receipt of the required document.

13. The Borrower shall cause UWSCG to provide to ADB copies of all time extensions, modifications or waivers to the contracts (including change orders) within 1 month following amendment of the contract.

## SCHEDULE 5

### Execution of Project; Financial Matters

#### Implementation Arrangements

1. The Borrower and UWSCG shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM on one hand, and this Loan Agreement, the Ordinary Operations Loan Agreement and/or the Project Agreement on the other, the provisions of this Loan Agreement, the Ordinary Operations Loan Agreement and/or the Project Agreement shall prevail.

#### Counterpart Funding and Resources

2. The Borrower shall ensure that: (a) the financial, technical and human resources which are necessary for the implementation of the Project are provided on a timely basis throughout the implementation of the Project; and (b) adequate funds are allocated for the maintenance of the infrastructure that is built, and the items that are procured, under the Project. Without limiting the generality of the foregoing, if the Project experiences cost overruns in excess of the proceeds of the Loan and the Ordinary Operations Loan, the Borrower shall provide financial support to UWSCG towards any reasonable cost overruns in order to achieve the objective of the Project, unless otherwise agreed by the parties.

#### Construction Quality

3. The Borrower shall ensure that the Project is carried out in accordance with applicable standards and with international best practice for design, technical specifications, construction supervision, quality control and project management.

#### Sector Development

4. The Borrower shall ensure that: (a) ADB is kept informed of the Borrower's policies and programs for the WSS sector that will materially affect the economic viability of the Project; and (b) best efforts are used to sustain and strengthen the WSS sector.

5. The Borrower shall take steps to strengthen GNEWSRC's regulatory function, including tariff setting and the regulation of the service standards of service providers. The Borrower shall take adequate steps to ensure that, beginning 2017, GNEWSRC will determine tariffs based on cost recovery principles, in particular to assure recovery of operation and maintenance costs, taxes, depreciation of assets, and a return on capital based on socially equitable principles that ensure that consumers will not pay for inefficient services.

6. The Borrower shall cause UWSCG to prepare a financial model taking into account UWSCG's financial performance from 2010 and projecting UWSCG's long term financials until 2025. The Borrower shall cause UWSCG to incorporate the financial model into UWSCG's business plan for 2015-2017 and to exert its best efforts to submit such business plan (with the financial model incorporated) soonest, and, in any case, UWSCG

shall submit such business plan to ADB by 15 October 2015. In the event that UWSCG is not able to submit such business plan by this date for reasons not within its control, the parties agree to discuss and consider setting a later date for the submission.

7. The Borrower shall ensure that ADB's consent is obtained at least 3 months prior to the implementation of any of the following: (a) any change in the ownership or control of UWSCG or any asset, facility or structure rehabilitated, procured or constructed under the Project; or (b) any change to UWSCG's authority or functions, that may affect the implementation of the Project. The Borrower shall ensure that any such change is carried out in accordance with all applicable laws and regulations of the Borrower.

#### Financial Covenants

8. Throughout the term of the Ordinary Operations Loan Agreement:

- (a) The Borrower shall cause UWSCG to attain an operating ratio of 1 by the end of 2019, and shall continue to maintain it at less than 1 thereafter, and in accordance with the provisions of the FFA. The Borrower shall cause UWSCG to decrease UWSCG's operating ratio by 5% every year beginning 2015 in order to achieve an operating ratio of 1 by 2019 as set forth in the foregoing sentence. For the purposes of this paragraph 8(a), "operating ratio" shall mean the ratio of UWSCG's operating expenses over its operating revenue, with "operating expenses" meaning all expenses of UWSCG on operation and maintenance including staff salaries, cost of energy, chemicals and consumables, routine maintenance, spare parts, consumables, etc. but excluding capital expenditure, debt service obligations, amortizations and depreciation. "Operating revenue" means the revenue collected by UWSCG from the sale of water and other revenues excluding grants from the government.
- (b) Until such time as tariff increases or other sources of income make it possible for UWSCG to meet the operating ratio defined in paragraph 8(a) above, the Borrower shall provide the funds necessary to meet the operating ratio of 1 starting from FY 2015.
- (c) The Borrower shall cause UWSCG to improve its service delivery, and revenue collection from all domestic consumers and non-domestic consumers through continued attainment of a minimum 90% revenue collection rate per annum from FY 2015, and of an aggregate 95% by the end of FY 2019.

#### Environment

9. The Borrower shall ensure, and shall cause UWSCG to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c)

Schedule 5

the EARF; and (d) all measures and requirements set forth in the IEEs and EMPs, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

Land Acquisition and Involuntary Resettlement

10. The Borrower shall ensure, and shall cause UWSCG to ensure, that the Project does not have any involuntary resettlement impacts within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall, and shall cause UWSCG to, take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to involuntary resettlement and the SPS. For the avoidance of doubt, any land made available by the Borrower, or caused to be made available by the Borrower, in accordance with Section 4.02 of the Ordinary Operations Loan Agreement shall be subject to the provisions of this paragraph 10.

Indigenous Peoples

11. The Borrower shall ensure, and shall cause UWSCG to ensure, that the Project does not have any indigenous peoples impact within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall, and shall cause UWSCG to, take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to indigenous peoples and the SPS.

Human and Financial Resources to Implement Safeguards Requirements

12. The Borrower shall, and shall cause UWSCG to, make available necessary budgetary and human resources to fully implement the EMPs.

Safeguards – Related Provisions in Bidding Documents and Works Contracts

13. The Borrower shall ensure, and cause UWSCG to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:

- (a) comply with the measures and requirements relevant to the contractor set forth in the applicable IEE and EMP, and any corrective or preventative actions set out in a Safeguards Monitoring Report;
- (b) make available a budget for all such environmental and social measures;
- (c) provide UWSCG with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the applicable IEE or EMP;
- (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and

Schedule 5

- (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.

Safeguards Monitoring and Reporting

14. The Borrower shall, and shall cause UWSCG to, do the following:
- (a) submit semi-annual Safeguards Monitoring Reports to ADB within 1 month of the end of each half of the calendar year and disclose relevant information from such reports to affected people promptly upon submission;
  - (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the applicable IEE or EMP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and
  - (c) report any actual or potential breach of compliance with the measures and requirements set forth in the applicable EMP promptly after becoming aware of the breach.

Prohibited List of Investments

15. The Borrower shall ensure, and shall cause UWSCG to ensure, that no proceeds of the Loans are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.

Labor Standards and Health

16. The Borrower shall ensure, and shall cause UWSCG to ensure, that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower shall include, and shall cause UWSCG to include, specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things, (a) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.

17. The Borrower shall, through MRDI, strictly monitor compliance with the requirements set forth in paragraph 16 above and provide ADB with regular reports.



Gender and Development

18. The Borrower shall ensure, and shall cause UWSCG to ensure, that: (a) the GAP is fully implemented and monitored in a timely manner in accordance with its terms, the related regulations of the Borrower, and ADB's Policy on Gender and Development (1998) and adequate resources are allocated for this purpose; (b) bidding documents include provisions as specified in the GAP, including equal pay to men and women for the same type of work and enabling working conditions for female workers; (c) progress in achieving the GAP targets are reflected in the Project progress reports and Project completion report; (d) targets under the GAP are achieved, including, but not limited to, (i) the training and involvement of local women non-governmental organizations and female community leaders in the distribution of information, education and communication material on water, hygiene and sanitation practices, customer rights and complaint mechanisms; (ii) at least 50% of the targeted women are reached by the public awareness program for water, hygiene and sanitation practices, customer rights and complaint mechanisms; (iii) at least 15% of the new positions created through the Project are set aside for women; and (iv) at least 30% of the staff at the customer care unit in the service center established by UWSCG are women.

Governance and Anticorruption

19. The Borrower and UWSCG shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.

20. The Borrower and UWSCG shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants and other service providers as they relate to the Project.

21. The Borrower shall cause UWSCG to disclose on its website information on (a) bidding procedures, bidders and contract awards; (b) the use of funds disbursed under the Project; (c) the physical progress of the Project; and (d) safeguard matters, including any environmental and/or social safeguards plans required to be prepared for the Project.



---

LOAN NUMBER \_\_\_\_-GEO

LOAN NUMBER \_\_\_\_-GEO (SF)

PROJECT AGREEMENT

(Urban Services Improvement Investment Program – Project 5)

between

ASIAN DEVELOPMENT BANK

and

UNITED WATER SUPPLY COMPANY OF GEORGIA LIMITED LIABILITY COMPANY

DATED \_\_\_\_\_

---

GEO 43405

## PROJECT AGREEMENT

PROJECT AGREEMENT dated \_\_\_\_\_ between ASIAN DEVELOPMENT BANK ("ADB") and UNITED WATER SUPPLY COMPANY OF GEORGIA LIMITED LIABILITY COMPANY ("UWSCG").

### WHEREAS

(A) by a Loan Agreement between Georgia ("Borrower") and ADB ("Special Operations Loan Agreement"), ADB has agreed to make to the Borrower a loan ("Special Operations Loan") of twenty three million five thousand Special Drawing Rights (SDR 23,005,000) on the terms and conditions set forth in the Special Operations Loan Agreement;

(B) by a Loan Agreement between Georgia and ADB ("Ordinary Operations Loan Agreement" and, together with the Special Operations Loan Agreement, "Loan Agreements"), ADB has agreed to make to the Borrower a loan ("Ordinary Operations Loan" and, together with the Special Operations Loan, "Loans") of forty three million Dollars (\$43,000,000) on the terms and conditions set forth in the Ordinary Operations Loan Agreement;

(C) ADB has agreed to make the Loans only on the condition that the proceeds of the Loans be made available to UWSCG and that UWSCG agrees to undertake certain obligations towards ADB as set forth in this Project Agreement; and

(D) UWSCG, in consideration of ADB entering into the Loan Agreements with the Borrower, has agreed to undertake the obligations set forth herein;

NOW THEREFORE the parties agree as follows:

## ARTICLE I

### Definitions

Section 1.01. Wherever used in this Project Agreement, unless the context otherwise requires, the several terms defined in the Loan Agreements and in the Loan Regulations (as defined in each of the Loan Agreements) have the respective meanings therein set forth.

## ARTICLE II

### Particular Covenants

Section 2.01. (a) UWSCG shall carry out the Project with due diligence and efficiency, and in conformity with sound administrative, financial, engineering, environmental, social and public utility practices.

(b) In the carrying out of the Project and operation of the Project facilities, UWSCG shall perform all obligations set forth in the Loan Agreements to the extent that they are applicable to UWSCG.

Section 2.02. UWSCG shall make available, promptly as needed, and on terms and conditions acceptable to ADB, the funds, facilities, services, equipment, land and other resources as required, in addition to the proceeds of the Loans, for the carrying out of the Project. For the avoidance of doubt, any land made available by UWSCG in accordance with the foregoing sentence shall be subject to the provisions of paragraph 10 of Schedule 5 to the Special Operations Loan Agreement.

Section 2.03. (a) In the carrying out of the Project, UWSCG shall employ competent and qualified consultants and contractors, acceptable to ADB, to an extent and upon terms and conditions satisfactory to ADB.

(b) Except as ADB may otherwise agree, UWSCG shall procure all items of expenditures to be financed out of the proceeds of the Loans in accordance with the provisions of Schedule 4 to the Special Operations Loan Agreement. ADB may refuse to finance a contract where any such item has not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 2.04. UWSCG shall carry out the Project in accordance with plans, design standards, specifications, work schedules and construction methods acceptable to ADB. UWSCG shall furnish, or cause to be furnished, to ADB, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modifications subsequently made therein, in such detail as ADB shall reasonably request.

Section 2.05. UWSCG shall take out and maintain with responsible insurers, or make other arrangements satisfactory to ADB for, insurance of the Project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.

Section 2.06. UWSCG shall maintain, or cause to be maintained, records and accounts adequate to identify the items of expenditure financed out of the proceeds of the Loans, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, its operations and financial condition.

Section 2.07. (a) ADB and UWSCG shall cooperate fully to ensure that the purposes of the Loans will be accomplished.

(b) UWSCG shall promptly inform ADB of any condition which interferes with, or threatens to interfere with, the progress of the Project, the performance of its obligations under this Project Agreement, or any Subsidiary Loan Agreement (as defined in each of the Loan Agreements), or the accomplishment of the purposes of the Loans.

(c) ADB and UWSCG shall from time to time, at the request of either party, exchange views through their representatives with regard to any matters relating to the Project, UWSCG and the Loans.

Section 2.08. (a) UWSCG shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loans and the expenditure of the proceeds thereof; (ii) the items of expenditure financed out of such proceeds; (iii) the Project; (iv) the administration, operations and financial condition of UWSCG; and (v) any other matters relating to the purposes of the Loans.

(b) Without limiting the generality of the foregoing, UWSCG shall furnish to ADB semiannual reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the period under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following period.

(c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose, UWSCG shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by UWSCG of its obligations under this Project Agreement and the accomplishment of the purposes of the Loans.

Section 2.09. (a) UWSCG shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements for the Project audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with International Standards on Auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements, use of the proceeds of the Loans and compliance with the financial covenants of the Loan Agreements) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, UWSCG shall (i) provide its annual financial statements prepared in accordance with financial reporting standards acceptable to ADB; (ii) have its financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; and (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(d) UWSCG shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and UWSCG and its financial affairs where they relate to the Project with the auditors appointed by UWSCG pursuant to subsections (a)(iii) and (c) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of UWSCG, unless UWSCG shall otherwise agree.

Section 2.10. UWSCG shall enable ADB's representatives to inspect the Project and Works and any relevant records and documents.

Section 2.11. (a) UWSCG shall, promptly as required, take all action within its powers to maintain its corporate existence, to carry on its operations, and to acquire, maintain and renew all rights, properties, powers, privileges and franchises which are necessary in the carrying out of the Project or in the conduct of its operations.

(b) UWSCG shall at all times conduct its operations in accordance with sound applicable administrative, financial, environmental, social and public utility practices, and under the supervision of competent and experienced management and personnel.

(c) UWSCG shall at all times operate and maintain its plants, equipment and other property, and from time to time, promptly as needed, make all necessary repairs and renewals thereof, all in accordance with sound administrative, financial, engineering, environmental, social and public utility, and maintenance and operational practices.

Section 2.12. Except as ADB may otherwise agree, UWSCG shall not sell, lease or otherwise dispose of any of its assets which shall be required for the efficient carrying on of its operations or the disposal of which may prejudice its ability to perform satisfactorily any of its obligations under this Project Agreement.

Section 2.13. Except as ADB may otherwise agree, UWSCG shall apply the proceeds of the Loans to the financing of expenditures on the Project in accordance with the provisions of the Loan Agreements and this Project Agreement, and shall ensure that all items of expenditures financed out of such proceeds are used exclusively in the carrying out of the Project.

Section 2.14. Except as ADB may otherwise agree, UWSCG shall duly perform all its obligations under each Subsidiary Loan Agreement (as defined in each of the Loan Agreements), and shall not take, or concur in, any action which would have the effect of assigning, amending, abrogating or waiving any rights or obligations of the parties under such Subsidiary Loan Agreement.

Section 2.15. UWSCG shall promptly notify ADB of any proposal to amend, suspend or repeal any provision of its Charter, which, if implemented, could adversely affect the carrying out of the Project or the operation of the Project facilities. UWSCG shall afford ADB an adequate opportunity to comment on such proposal prior to taking any action thereon.

### **ARTICLE III**

#### **Effective Date; Termination**

Section 3.01. This Project Agreement shall come into force and effect on the date on which the Loan Agreements have come into force and effect. ADB shall promptly notify UWSCG of such date.

Section 3.02. This Project Agreement and all obligations of the parties hereunder shall terminate on the date on which the Loan Agreements shall terminate in accordance with their terms.

Section 3.03. All the provisions of this Project Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the Loan Agreements.

### **ARTICLE IV**

#### **Miscellaneous**

Section 4.01. Any notice or request required or permitted to be given or made under this Project Agreement and any agreement between the parties contemplated by this Project Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand, mail or facsimile to the party to which it is required or permitted to be given or made at its address hereinafter specified, or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

#### **For ADB**

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines



Facsimile Numbers:

+63 (2) 636-2444

+63 (2) 636-2301.

For UWSCG

United Water Supply Company of Georgia Limited Liability Company  
#76b, Vazha Pshavela Ave.  
Tbilisi, 0186, Georgia

Section 4.02. (a) Any action required or permitted to be taken, and any documents required or permitted to be executed, under this Project Agreement by or on behalf of UWSCG may be taken or executed by its Director or by such other person or persons as he or she shall so designate in writing notified to ADB.

(b) UWSCG shall furnish to ADB sufficient evidence of the authority of each person who will act under paragraph (a) of this Section, together with the authenticated specimen signature of each such person.

Section 4.03. No delay in exercising, or omission to exercise, any right, power or remedy accruing to either party under this Project Agreement upon any default shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence in such default; nor shall the action of such party in respect of any default, or any acquiescence in any default, affect or impair any right, power or remedy of such party in respect of any other or subsequent default.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Project Agreement to be signed in their respective names as of the day and year first above written, and to be delivered at the principal office of ADB.

ASIAN DEVELOPMENT BANK

By \_\_\_\_\_  
[Name and Designation]

UNITED WATER SUPPLY COMPANY  
OF GEORGIA LIMITED LIABILITY  
COMPANY

By \_\_\_\_\_  
[Name and Designation]

საქართველოს ფინანსთა  
მინისტრი



MINISTER OF FINANCE  
OF GEORGIA

№ 07-02/33139

30 03 2015

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City, Metro Manila

ATTENTION: Mr. Klaus Gerhaeusser  
Director General  
Central and West Asia Department

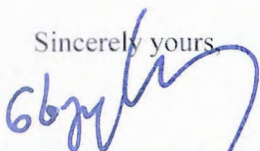
Subject: Urban Services Improvement Investment Program – Periodic Financing Request (PFR) #5

Dear Mr. Gerhaeusser,

Please refer to the Framework Financing Agreement (FFA) for the Georgia Urban Services Improvement Investment Program dated 1 March 2011 between Asian Development Bank (ADB) and Georgia. Expressions defined in the FFA shall have the same meanings herein.

Pursuant to the provisions of the FFA, Georgia requests ADB to process this Periodic Financing Request (PFR) for a tranche, in the form of a loan from its Ordinary Capital Resources. The proposed financing amounts, terms, conditions, and financing plan are specified in Attachment A hereto. Descriptions of the components for which financing is hereby requested are set out in Annexes 1–7 of the Attachment A hereto.

Sincerely yours,



Nodar Khaduri

## Attachment A

**Project Description**      The components proposed for financing under the requested PFR are:

Component 1: Infrastructure Improvement

1.1 Construction of sewerage systems in Zugdidi including sewerage treatment plant (STP);

1.2 Construction of STP in Mestia;

Component 3: Project Implementation Support

3.1. Consultants for Auditing of Annual Project Financial Statements (APFS);

3.2. Consultants for Construction Supervision.

The Design and Monitoring Framework for this tranche is in Annex 1.

**Cost Estimates and Financing Plan**      The total cost of the components is estimated at \$90.00 million, inclusive of taxes, duties, and interest and other charges on the loan during construction. The detailed cost estimates and financing plan are in Annex 2.

(\$ million)

Tab.1 The cost estimates and financing plan

Project	ADB	Georgia	Total
Component 1: Infrastructure Improvement	64,469	11,604	76,073
Component 2: Institutional Effectiveness	0	0	0
Component 3: Project Implementation Support	2,63	0,473	3,103
Base Cost	67,1	12,077	79,177
Financing Charges	2,10	0	2,10
Unallocated	5,80	2,92	8,72
Total	75	15	90

Loan Amount and Terms	<p>This fifth tranche of the MFF is proposed as a loan of \$32 million equivalent from the ADB's Special Funds Resources (ADF), with a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per annum, and such other terms and conditions as agreed in the FFA and supplemented in the loan and project agreements for tranche 5 and a loan of \$43 million from the ADB's Ordinary Capital Resources (OCR) to help finance the Project. The loan will have a 24 year term, including a grace period of 13 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0,15% per year, and such other terms and conditions set forth in the draft loan and project agreements.</p>
Period of Loan	<p>The components are expected to be completed by 31 December 2018. No disbursements from the loan account will be requested or made later than 30 June 2019.</p>
Advance Contracting	<p>Advance contracting is requested for procurement of civil works and recruitment of consulting services.</p>
Retroactive Financing	<p>Retroactive financing is requested for civil works and consulting services, not exceeding the amount of 20% of the loan amount, incurred before loan effectiveness, but not earlier than 12 months before the signing of the legal agreement.</p>
Implementation Arrangements	<p>The Executing Agency is the Ministry of Regional Development and Infrastructure (MRDI) with overall responsibility for the Investment Program. The Implementing Agency is the UWSCG, which is same as for Tranches 1 to 4. Implementation arrangements are detailed in the Facility Administration Manual.</p>

Procurement and Consulting Services

The procurement plan is attached as **Annex 3**.

Confirmation of Continuing Validity of and Adherence to Provisions of FFA, Previous Agreements, and the Design and Monitoring Framework

Georgia confirms that the understandings set out in the FFA and provisions of previous loan agreements have been adhered, and remain true to date.

The Tranche 5 has been prepared in close consultation with the stakeholders and meets the selection criteria set out in Schedule 4 of the FFA. All project components were prepared in compliance with laws and regulations of Georgia for technical viability, and environmental and social safeguards and ADB Safeguard Policy Statement (2009).

Readiness of the Project for Implementation

The feasibility study and detailed engineering design for sewerage system in Zugdidi and feasibility study for STP in Mestia including cost estimates and bills of quantities have been prepared. The summaries of feasibility studies, engineering design, economical and financial assessments are attached as **Annex 4**.

Safeguards

Safeguard documents required for the Tranche 5 have been prepared in accordance with ADB's Safeguard Policy Statement (2009) and are attached as **Annex 5 and Annex 6**.

Gender

The Gender Action Plan is in **Annex 7**.

# Project Administration Manual

Project Number: 43405-027

Loan Number: xxxx

September 2015

## Georgia: Urban Services Improvement Investment Program – Project 5

**Contents****ABBREVIATIONS**

I.	PROJECT DESCRIPTION	1
A.	Impact and Outcome	1
B.	Outputs	1
II.	IMPLEMENTATION PLANS	3
A.	Project Readiness Activities	3
B.	Overall Project Implementation Plan	4
III.	PROJECT MANAGEMENT ARRANGEMENTS	5
A.	Project Implementation Organizations – Roles and Responsibilities	5
B.	Key Persons Involved in Implementation	6
C.	Project Organization Structure	7
IV.	COSTS AND FINANCING	8
A.	Detailed Cost Estimates by Expenditure Category	8
B.	Allocation of Withdrawal of Tranche 5 Loan Proceeds	9
C.	Detailed Cost Estimates by Financier	10
D.	Detailed Cost Estimates by Outputs/Components	11
E.	Detailed Cost Estimates by Year	12
F.	Contract and Disbursement S-curve	13
G.	Fund Flow Diagram	14
V.	FINANCIAL MANAGEMENT	15
A.	Financial Management Assessment	15
B.	Disbursement	17
C.	Accounting	18
D.	Auditing and Public Disclosure	18
VI.	PROCUREMENT AND CONSULTING SERVICES	19
A.	Advance Contracting and Retroactive Financing	19
B.	Procurement of Goods, Works and Consulting Services	20
C.	Procurement Plan for Tranche 5	21
D.	Consultant's Terms of Reference	23
VII.	SAFEGUARDS	24
A.	Social Safeguards	24
B.	Environmental Safeguards	24
VIII.	GENDER AND SOCIAL DIMENSIONS	28
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	31
A.	Project Design and Monitoring Framework	31
B.	Monitoring	33
C.	Evaluation	33
D.	Reporting	33
E.	Stakeholder Communication Strategy	34
X.	ANTICORRUPTION POLICY	38
XI.	ACCOUNTABILITY MECHANISM	39
XII.	RECORD OF PAM CHANGES	40



### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Regional Development and Infrastructure (MRDI) and the United Water Supply Company of Georgia LLC (UWSCG) are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by the Ministry of Regional Development and Infrastructure (MRDI) and the United Water Supply Company of Georgia LLC (UWSCG) of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

## **Abbreviations**

ADB	=	Asian Development Bank
CSC	=	construction supervision consultants
CWRD	=	Central and West Asia Department
DMF	=	design and monitoring framework
EARF	=	environmental assessment and review framework
EMP	=	environmental management plan
ICB	=	international competitive bidding
IEC	=	information, education and communication
IEE	=	initial environmental examination
IFRS	=	International Financial Reporting Standards
IPMO	=	investment program management office
IPP	=	indigenous people plan
MRDI	=	Ministry of Regional Development and Infrastructure
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAM	=	project administration manual
QCBS	=	quality and cost based selection
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
STP	=	sewage treatment plant
TOR	=	terms of reference
UWSCG	=	United Water Supply Company of Georgia LLC
WSS	=	water supply and sanitation

## **WEIGHTS AND MEASURES**

km	–	kilometer
lpcd	–	liters per capita per day
Mld	–	million liters per day

## **I. PROJECT DESCRIPTION**

1. Improved urban WSS service is a key priority of the Government, as it is essential to improving the quality of life, attracting investment, and raising productivity and competitiveness. Recognizing the need to overcome current problems and constraints, the Government's urban WSS sector development plan (SDP) for 2011–2020, approved on 31 January 2011, aims to ensure continuous and reliable water supply and safe sanitation services to all urban residents by 2020. The SDP's policy and institutional reform framework has a strong focus on technical sustainability of WSS services, environmental and natural resource protection, public-private partnerships, tariff rationalization, prudent financial management, and improved sector regulation through an enabling legislative and regulatory frameworks for WSS services.

2. The SDP, which sets forth the road map and policy framework for the WSS sector, fits with ADB's approach to the WSS sector development in Georgia. A framework financing agreement (FFA) for the multitranche financing facility (the Facility) MFF 0055: Georgia for the Urban Services Improvement Investment Program (the Investment Program) was signed between the Georgia and the Asian Development Bank (ADB) on 1 March 2011. Subsequently, on 30 March 2011, ADB's Board of Directors approved the Facility for financing the Investment Program in an amount of \$500 million. The Investment Program's executing agency is the Ministry of Regional development and Infrastructure (MRDI), and implementing agency is the United Water Supply Company of Georgia LLC (UWSCG).

3. Project 5 is designed in line with the policy and development objectives of the Investment Program and that of Projects 1, 2,3 and 4, comprising of technical sustainability, environmental protection, and institutional and financial sustainability. Project 5 will improve the sewerage system in Zugdidi and Mestia towns, which are covered under the Investment Program.

### **A. Impact and Outcome**

4. Project 5 will contribute to the achievement of MFF's impact through improved health of residents in the urban centers of Zugdidi and Mestia. Project 5 will contribute to the achievement of MFF's outcome through improving sanitation services in the urban centers of Zugdidi and Mestia.

### **B. Outputs**

5. Project 5 includes the following outputs: (i) infrastructure improvement through improved efficiency of sewerage and sanitation system by construction and expansion of sewerage system in Zugdidi and Mestia; and (ii) project implementation support through appointment of construction supervision consultants, and continued implementation of public awareness program from Project 4, including dissemination of information on hygiene and sanitation through service center.

#### **1. Component 1: Infrastructure Improvement**

6. The sewerage and sanitation system efficiency will be improved in Zugdidi town through construction of approximately 180 km of sewer lines, approximately 20 sewage pumping

stations, and a new STP of approximately 11 Mld capacity.<sup>1</sup> In addition, a new STP of 1.5 Mld will be constructed in Mestia town. Project 5 will benefit approximately 20,000 households in Zugdidi, and a population of 6,500 in Mestia (including floating tourist population).

## **2. Component 2: Project Implementation Support**

7. The second component will include (i) roll out of a public awareness program in Zugdidi with the help of construction supervision consultants, and (ii) establishment of customer care units in the service centers, which are staffed by at least 30% women that inform, educate, and communicate on water, hygiene, and sanitation.<sup>2</sup>

---

<sup>1</sup> A comprehensive water supply system for Zugdidi town was proposed under Project 4, which was approved by ADB on 11 December 2014.

<sup>2</sup> Activities (ii) and (iii) will be continued from Project 4 in Zugdidi town.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

Indicative Activities	2015								Who is responsible
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Advance contracting actions									UWSCG
Retroactive financing actions									UWSCG
ADB Management approval									ADB
Tranche 5 loan signing									MOF and ADB
Government legal opinion provided									Ministry of Justice
Government budget inclusion									MRDI and MOF
Tranche 5 loan effectiveness									MOF

ADB = Asian Development Bank, MOF = Ministry of Finance, MRDI = Ministry of Regional Development and Infrastructure, UWSCG = United Water Supply Company of Georgia.

## B. Overall Project Implementation Plan

[illegible]

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Responsibilities
Executing agency (Ministry of Regional Development and Infrastructure)	<ul style="list-style-type: none"> <li>➤ responsible for Investment Program oversight and administration</li> <li>➤ hold monthly meetings with UWSCG to review progress</li> <li>➤ submit progress reports to the SC for decision making</li> <li>➤ ensure compliance with Investment Program covenants</li> <li>➤ submit Investment Program documents, including audit reports, to ADB on time</li> <li>➤ convene regular meetings in consultation with the SC Chairperson and UWSCG</li> </ul>
Implementing agency (UWSCG)	<ul style="list-style-type: none"> <li>➤ prepare the periodic financing request</li> <li>➤ oversee Investment Program implementation and management</li> <li>➤ oversee Investment Program accounting and auditing</li> <li>➤ manage all consultants</li> <li>➤ coordinate with all line ministries to ensure smooth and efficient implementation</li> <li>➤ secure technical and environmental approvals for all civil works prior to bidding</li> <li>➤ implement the environmental management plan for each subproject</li> <li>➤ ensure compliance with Investment Program covenants</li> <li>➤ comply with social safeguards requirement detailed in the PAM</li> <li>➤ comply with Gender Action Plan</li> <li>➤ invite bids, evaluate and prepare bid evaluation reports for ADB's approval</li> <li>➤ award contracts</li> <li>➤ prepare quarterly progress reports</li> <li>➤ Preparation, approval and submission of withdrawal applications</li> </ul>
ADB	<ul style="list-style-type: none"> <li>➤ Ensure technical and financial support and oversight according to the framework financing, loan and project agreements</li> </ul>

## **B. Key Persons Involved in Implementation**

### **Executing Agency**

Ministry of Regional Development  
and Infrastructure

Officer's Name: Eka Sepashvili  
Position: Deputy Minister  
Telephone: : + 995 32 2510 700  
Email address: [e.sepashvili@mrdi.gov.ge](mailto:e.sepashvili@mrdi.gov.ge)  
Office Address: 12 Al Kazbegi Avenue, Tbilisi, Georgia

### **Implementing Agency**

United Water Supply Company of  
Georgia

Officer's Name: Nikoloz Kizikurashvili  
Position: Director  
Telephone: : + 995 32 2919 060  
Email address: [n.kizikurashvili@water.gov.ge](mailto:n.kizikurashvili@water.gov.ge)  
Office Address: 76b, Vajha Pshavela Avenue, 0186, Tbilisi  
Georgia

Officer's Name: Ucha Dzimistarishvili  
Position: Head of Projects Management and International  
Relations Department  
Telephone: : + 995 32 2919 060  
Email address: [U.Dzimistarishvili@water.gov.ge](mailto:U.Dzimistarishvili@water.gov.ge)

### **ADB**

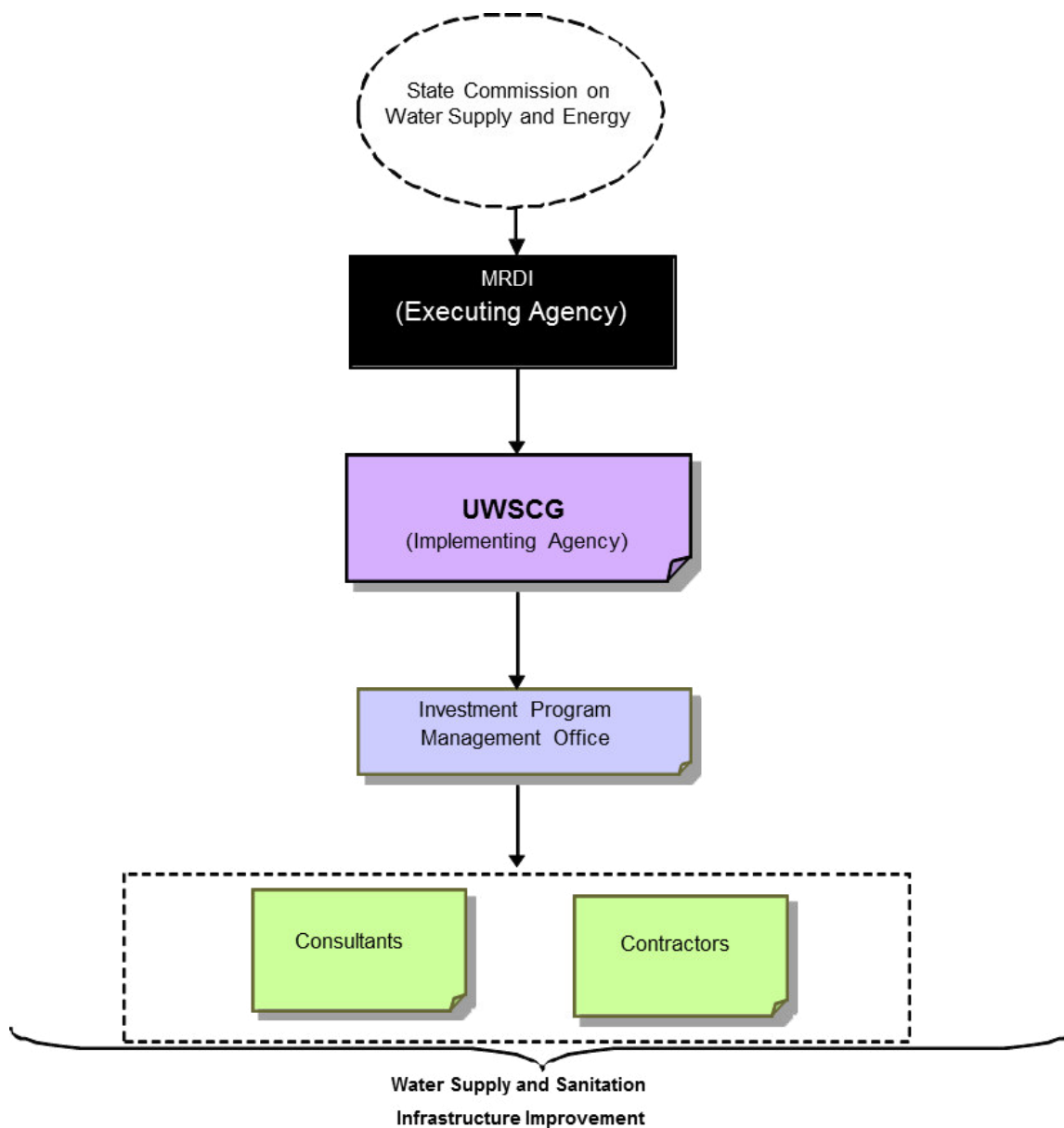
Urban Development and Water  
Division

Staff Name: Anand Chiplunkar  
Position: Director  
Telephone: +63-2-632 6346  
Email address: [achiplunkar@adb.org](mailto:achiplunkar@adb.org)

Mission Leader

Staff Name: Sanjay Joshi  
Position: Senior Urban Development Specialist  
Telephone: +63-2-632 4136  
Email address: [sjoshi@adb.org](mailto:sjoshi@adb.org)



**C. Project Organization Structure**

MRDI = Ministry of Regional Development and Infrastructure, UWSCG = United Water Supply Company of Georgia.

#### IV. COSTS AND FINANCING

8. ADB will part finance the cost of all the civil works and consultancy costs. The Government will part finance the cost of all the civil works and consultancy costs. The Government will finance the cost of land acquisition and resettlement costs, if any, and taxes and duties, whereas ADB will finance the interest during implementation period of the Project.

##### A. Detailed Cost Estimates by Expenditure Category<sup>a</sup>

Item	Foreign Exchange	Local Currency	Total Cost	% of Base Cost
<b>A. Investment Costs</b>				
1. Civil Works	64.47	11.60	76.07	96.07
2. Consultants				
a. Project management and Audit	2.64	0.47	3.11	3.93
<b>Subtotal (A)</b>	<b>67.10</b>	<b>12.08</b>	<b>79.18</b>	<b>100.00</b>
<b>B. Recurrent Costs</b>				
1. System Operation and Maintenance	0.00	0.00	0.00	0.00
<b>Subtotal (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Base Cost</b>	<b>67.10</b>	<b>12.08</b>	<b>79.18</b>	<b>100.00</b>
<b>C. Contingencies</b>				
1. Physical	4.41	1.92	6.33	6.33
2. Price	1.39	1.00	2.39	2.39
<b>Subtotal (C)</b>	<b>5.80</b>	<b>2.92</b>	<b>8.72</b>	<b>8.72</b>
<b>D. Financing Charges During Implementation</b>				
1. Interest During Construction (including commitment charges on OCR loans)	2.10	0.00	2.10	2.10
<b>Subtotal (D)</b>	<b>2.10</b>	<b>0.00</b>	<b>2.10</b>	<b>2.10</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>75.00</b>	<b>15.00</b>	<b>90.00</b>	

- a Preparation notes:
1. The total cost includes taxes and duties of \$12.08 million to be financed from Government resources.
  2. STPs are bid out on Design-Build-Operate contract framework. The operation and maintenance cost for STPs estimated at \$3.37 million is therefore included under Civil Works item.
  3. Environment and Social Mitigation costs including the costs associated with implementing relevant safeguards, gender and social dimension action plans are included in the cost of the civil works.

Source: UWSCG and Asian Development Bank estimates.

**B. 1. Allocation of Withdrawal of Tranche 5 Loan Proceeds (OCR)**

<b>Number</b>	<b>Category</b>	<b>Total Amount Allocated for ADB financing-OCR (\$)</b>	<b>ADB Financing Percentage and Basis for Withdrawal from the Loan Account</b>
1	Works	35,835,667	84.75% of total expenditure claimed*
2	Consulting Services	2,635,000	84.75% of total expenditure claimed
3	Interest & Commitment Charges	1,204,000	100% of amounts due
4	Unallocated	3,325,333	
	<b>Total</b>	<b>43,000,000</b>	

Note: No withdrawals will be made for the Project until a relending agreement, in form and substance satisfactory to ADB has been entered into by the Government and UWSCG.

\* Financing allocated to the Works item under the Special Operations Loan Agreement will be utilized first at 84.75% of every claim until it has been disbursed in full. Thereafter financing allocated to the Works item under the Ordinary Operations Loan Agreement will be utilized at 84.75% of every claim.

Source: United Water Supply Company of Georgia and Asian Development Bank estimates

**2. Allocation of Withdrawal of Tranche 5 Loan Proceeds (ADF)**

<b>Number</b>	<b>Category</b>	<b>Total Amount Allocated for ADB financing-ADF (\$)</b>	<b>ADB Financing Percentage and Basis for Withdrawal from the Loan Account</b>
1	Works	28,629,333	84.75% of total expenditure claimed*
2	Consulting Services	-	-
3	Interest	896,000	100.00% of amounts due
4	Unallocated	2,474,667	
	<b>Total</b>	<b>32,000,000</b>	

Note: No withdrawals will be made for the Project until a relending agreement, in form and substance satisfactory to ADB has been entered into by the Government and UWSCG.

\* Financing allocated to the Works item under the Special Operations Loan Agreement will be utilized first at 84.75% of every claim until it has been disbursed in full. Thereafter financing allocated to the Works item under the Ordinary Operations Loan Agreement will be utilized at 84.75% of every claim.

Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

**C. Detailed Cost Estimates by Financier<sup>a</sup>**

(\$ million)							
Item	ADB				Government		Total Cost
	OCR	% of Cost Category	ADF	% of Cost Category	Amount	% of Cost Category	
<b>A. Investment Costs</b>							
1. Civil Works	35.84	47.11	28.63	37.64	11.60	15.25	76.07
2. Consultants							
a. Project management and Audit	2.64	84.75	0.00	0.00	0.47	15.25	3.11
<b>Subtotal (A)</b>	<b>38.47</b>	<b>48.59</b>	<b>28.63</b>	<b>36.16</b>	<b>12.08</b>	<b>15.25</b>	<b>79.18</b>
<b>B. Recurrent Costs</b>							
1. System Operation and Maintenance	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Base Cost</b>	<b>38.47</b>	<b>48.59</b>	<b>28.63</b>	<b>36.16</b>	<b>12.08</b>	<b>15.25</b>	<b>79.18</b>
<b>C. Contingencies</b>	3.33	38.13	2.47	28.38	2.92	33.49	8.72
<b>D. Financing Charges During Implementation</b>	1.20	57.33	0.90	42.67	0.00	0.00	2.10
<b>Total Project Cost (A+B+C+D)</b>	<b>43.00</b>	<b>47.78</b>	<b>32.00</b>	<b>35.56</b>	<b>15.00</b>	<b>16.66</b>	<b>90.00</b>
<b>% of Total Project Cost</b>		<b>47.78%</b>		<b>35.56%</b>		<b>16.66%</b>	<b>100.00%</b>

- a Preparation notes:
1. The total cost includes taxes and duties of \$12.08 million to be financed from Government resources.
  2. STPs are bid out on Design-Build-Operate contract framework. The operation and maintenance cost for STPs estimated at \$3.37 million is therefore included under Civil Works item.
  3. Environment and Social Mitigation costs including the costs associated with implementing relevant safeguards, gender and social dimension action plans are included in the cost of the civil works.

Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

## D. Detailed Cost Estimates by Outputs/Components<sup>a</sup>

(\$ million)						
Item	Total Cost	Amount	Output 1	Amount	Output 2	% of Cost Category
			% of Cost Category		% of Cost Category	
<b>A. Investment Costs<sup>b</sup></b>						
1. Civil Works	76.07	76.07	87.98%	0.00	0.00%	
2. Consultants						
a. Project management & Project Auditors	3.11	0.00	0.00%	3.11	87.98%	
<b>Subtotal (A)</b>	<b>79.18</b>	<b>76.07</b>	<b>87.98%</b>	<b>3.11</b>	<b>87.98%</b>	
<b>B. Recurrent Costs</b>						
1. System Operation and Maintenance	0.00	0.00	0.00%	0.00	0.00%	
<b>Subtotal (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00%</b>	<b>0.00</b>	<b>0.00%</b>	
<b>Total Base Cost</b>	<b>79.18</b>	<b>76.07</b>	<b>87.98%</b>	<b>3.11</b>	<b>87.98%</b>	
<b>C. Contingencies</b>						
1. Physical <sup>c</sup>	6.33	6.08	7.03%	0.25	7.03%	
2. Price <sup>d</sup>	2.39	2.30	2.66%	0.09	2.66%	
<b>Subtotal (C)</b>	<b>8.72</b>	<b>8.38</b>	<b>9.69%</b>	<b>0.34</b>	<b>9.69%</b>	
<b>D. Financing Charges During Implementation<sup>e</sup></b>						
1. Interest During Construction	2.10	2.02	2.33%	0.08	2.33%	
<b>Subtotal (D)</b>	<b>2.10</b>	<b>2.02</b>	<b>2.33%</b>	<b>0.08</b>	<b>2.33%</b>	
<b>Total Project Cost (A+B+C+D)</b>	<b>90.00</b>	<b>86.47</b>	<b>100.00%</b>	<b>3.53</b>	<b>100.00%</b>	

a Preparation Notes:

1. The total cost includes taxes and duties of \$12.08 million to be financed from Government resources.

2. STPs are bid out on Design-Build-Operate contract framework. The operation and maintenance cost for STPs estimated at \$3.37 million is therefore included under Civil Works item.

3. Environment and Social Mitigation costs including the costs associated with implementing relevant safeguards, gender and social dimension action plans are included in the cost of the civil works.

b In mid-2014 prices.

c Computed at 8.5% of base cost.

d Price contingencies computed at 1.4% on foreign exchange costs and 3% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

e Includes interest and commitment charges on OCR loans. Interest during construction has been computed at 2% per annum.

Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

**E. Detailed Cost Estimates by Year<sup>a</sup>**

(\$ million)

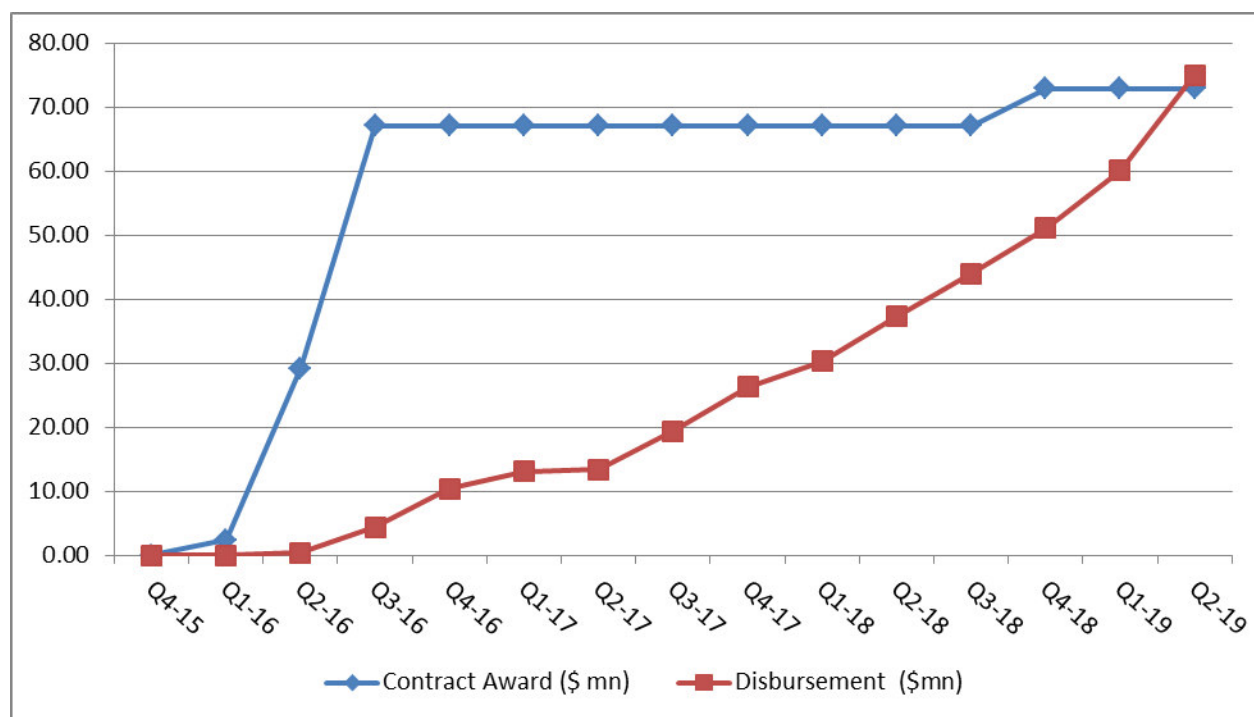
	Item	Total Cost	Year 1	Year 2	Year 3	Year 4
<b>A.</b>	<b>Investment Costs</b>					
	1. Civil Works	64.47	9.67	14.99	23.13	16.68
	2. Consultants					
	a. Project management & Project Auditors	2.64	0.63	0.53	0.79	0.69
	<b>Subtotal (A)</b>	<b>67.10</b>	<b>10.30</b>	<b>15.51</b>	<b>23.92</b>	<b>17.37</b>
<b>B.</b>	<b>Recurrent Costs</b>					
	1. IPMO consultants salaries	-	-	-	-	-
	2. System Operation and Maintenance	-	-	-	-	-
	<b>Subtotal (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>Total Base Cost</b>	<b>67.10</b>	<b>10.30</b>	<b>15.51</b>	<b>23.92</b>	<b>17.37</b>
<b>C.</b>	<b>Contingencies</b>	<b>5.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5.80</b>
<b>D.</b>	<b>Financing Charges During Implementation</b>	<b>2.10</b>	<b>0.08</b>	<b>0.40</b>	<b>0.89</b>	<b>0.73</b>
	<b>Total Project Cost (A+B+C+D)</b>	<b>75.00</b>	<b>10.38</b>	<b>15.91</b>	<b>24.80</b>	<b>23.90</b>
	<b>% of Total Project Cost</b>	<b>100%</b>	<b>14%</b>	<b>21%</b>	<b>33%</b>	<b>32%</b>

- a Preparation Notes:
1. The total cost includes taxes and duties of \$12.08 million to be financed from Government resources.
  2. STPs are bid out on Design-Build-Operate contract framework. The operation and maintenance cost for STPs estimated at \$3.37 million is therefore included under Civil Works item.
  3. Environment and Social Mitigation includes all costs associated with implementing relevant safeguards, gender and social dimension action plans.
- Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

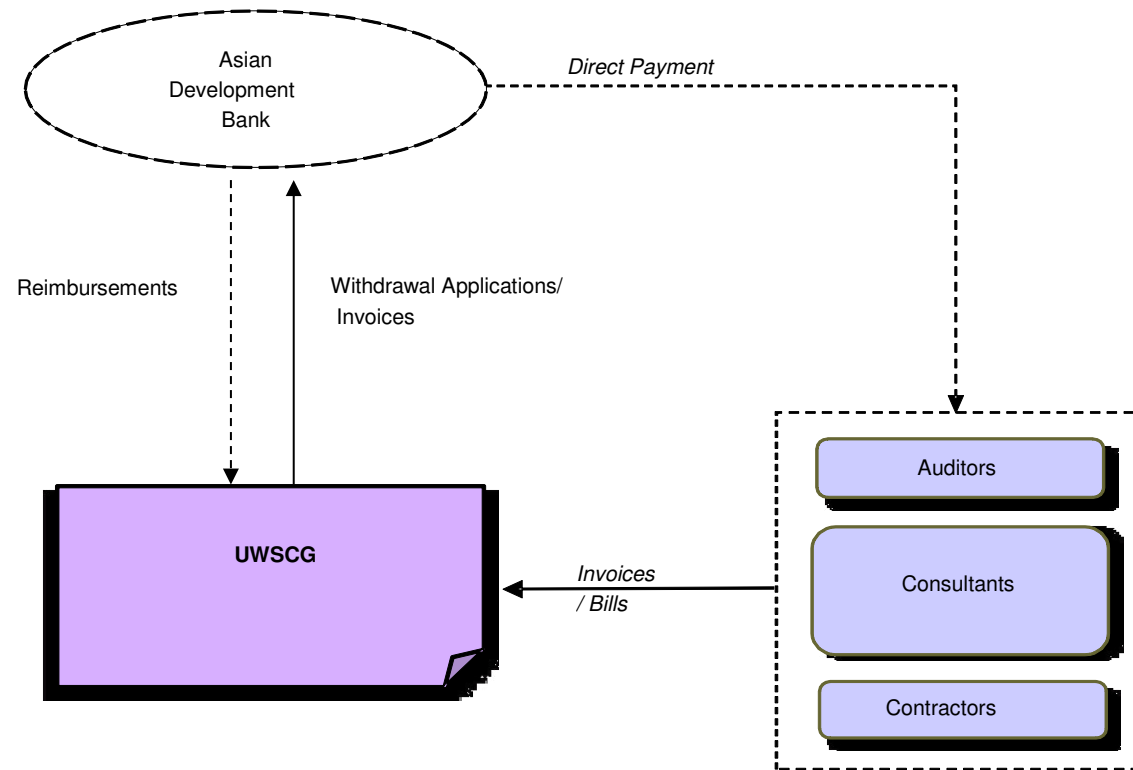
**F. Contract and Disbursement S-curve**

Year	Contract Award (in \$ million)					Disbursement (in \$ million)				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2016	2.43	26.79	37.88	0.00	67.10	0.00	0.37	4.01	6.00	10.38
2017	0.00	0.00	0.00	0.00	0.00	2.73	0.32	5.99	6.87	15.91
2018	0.00	0.00	0.00	5.80	5.80	3.95	7.01	6.69	7.15	24.80
2019	0.00	0.00	0.00	0.00	0.00	9.03	14.87	0.00	0.00	23.90
	Total Contract Awards				72.90	Total Disbursement				75.00

(\$ million)



## G. Fund Flow Diagram



Component 1 = Infrastructure Improvement, Component 2 = Project Implementation Support, UWSCG = United Water Supply Company of Georgia.



## V. FINANCIAL MANAGEMENT

9. Financial Management Assessment (FMA) was undertaken at the implementing agency level for the United Water Supply Company of Georgia LLC (UWSCG) to determine the capacity of the implementing agency in managing its financial resources effectively and efficiently. Such a capacity is critical to the success of the Investment Program. The assessment determines the adequacy of systems and controls including accounting and financial reporting, auditing, internal control, funds disbursement and flows, information systems, and personnel complement, among others. The findings were updated and incorporated by obtaining detailed information on financial operations at agency and project levels from the project accountant/financial consultant at IPMO and auditors for ongoing ADB loan projects.

### A. Financial Management Assessment

10. The FMA indicated that UWSCG has gained sufficient experience with international lending institutions, and it has the financial management capability to satisfactorily record all transactions and balances, support the preparation of regular and reliable financial statements and financial monitoring reports, safeguard the assets, and subject these to auditing arrangements acceptable to ADB. However, the external auditor has provided a disclaimer of opinion for UWSCG's audit of FY 2013. The auditor has cited issues with valuation of assets, as also non-accounting of some assets taken over by UWSCG in earlier years, as the reasons. This indicates weak accounting and control over fixed assets, particularly the assets taken over by UWSCG has not been valued appropriately and not transferred to the books. There is still a dialogue ongoing between the Government and UWSCG on taking-over some of the existing water supply assets, and UWSCG is still not in a position to finalize asset valuation. This is the reason the auditor did not provide any opinion. ADB is supporting UWSCG under Project 3 to build its asset data base on GIS platform, which will facilitate identification, condition assessment further and valuation exercise simpler.

11. UWSCG's unaudited financial statements for 2014 indicate that it has incurred a loss of GEL8.78 million on a turnover of GEL35.17 million. The loss is an increase of 10% over the loss in 2013 of GEL11.9 million, although the turnover increased by only 3% from GEL34.18 million in 2013 to GEL35.17 million in 2014. It was therefore an essential financial due diligence requirement to assess UWSCG's likely financial performance, and to establish the financial sustainability through review of UWSCG's business plan.

12. In order to help UWSCG to build its business model, processes, operation, management and good governance practices, a 3-year management consultancy contract was envisaged under the Investment Program. Though the bids for appointment of management consultants were received in 2012, the signing of the contract with a renowned water utility operator (Sachsen Wasser GmbH) was delayed by 1 year, and the contract was signed on 2 July 2013. Because of this delay, original target of preparation of business plan by 2013 was not met by UWSCG, and the same was extended to end of 2014.<sup>3</sup>

13. The management consultant during first year of its operation has submitted several reports, namely Base year data report, Asset management program, Human resources and

<sup>3</sup> This was effected in Schedule 5 of the Loan Agreement between the Borrower and ADB dated 5 February 2015 for Project 4, which deemed a modification of the requirement set forth in (a) paragraph 6(i) of Schedule 6 of the FFA and (b) subparagraph 6(a) of Schedule 5 to the Loan Agreement between the Borrower and ADB dated 10 May 2011 for Project 1.

organization development plan, Financial management plan, Institutional development plan, Standard operating procedures, Management information systems, Operating performance report, Annual operating plan (for 2014), etc. These outputs were the main ingredients for preparation of business plan for UWSCG. UWSCG accordingly prepared and submitted a draft business plan in December 2014, which however was not in acceptable format, and the discussion between UWSCG and ADB are ongoing for necessary revisions in the business plan. UWSCG has been advised to prepare financial analysis model, which should provide historical audited information from FY2010, and project forward until FY2025. Based on ADB's advice, UWSCG has now agreed to appoint an Individual Consultant, who can assist them to prepare financial analysis, which is satisfactory to ADB.

14. The main observation of the business plan indicated that UWSCG would continue to be heavily dependent on the government subsidies to meet its operating costs. UWSCG has been further advised to put a plan in place for regular submission of its financials to the regulatory authority, and accordingly seeking revisions in tariffs in order to reduce its dependence on government subsidies. For last 3 financial years, the government has supported UWSCG with adequate grants to maintain the operating ratio<sup>4</sup> less than 1 as can be seen from the following analysis. However, the government has not provided adequate grants to UWSCG in FY2014 to maintain its operating ratio less than 1.

	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014*</b>
Subsidy	11,741,787.00	14,122,594.00	12,500,000.00	8,000,000.00
Subsidy % of revenue	30%	34%	25%	22%
Expenses (without depreciation and amortization)	37,447,676.95	41,485,804.00	48,362,000.00	43,956,390.00
Income	27,162,358.07	27,794,798.68	38,375,000.00	35,172,999.44
Operating Ratio (Without Subsidy)	1.38	1.49	1.26	1.56
Operating Ratio (With Subsidy)	0.96	0.99	0.95	1.37

(\*based on unaudited financial statements)

Source: United Water Supply Company of Georgia.

15. The respective loan agreements for the Projects provide for covenants for Borrower to (i) take steps to strengthen regulatory function, including tariff setting for the cost recovery, (ii) cause UWSCG to achieve financial stability through attainment of an operating ratio of 1 by the end of 2019, and (iii) until such time as tariff increases for UWSCG to meet the operating ratio, provide funds to UWSCG necessary to meet the viability gap. The project team will continue dialogue with the MRDI and Ministry of Finance to help UWSCG in setting up road map for financial sustainability, and to provide necessary viability gap funding until UWSCG maintains the operating ratio of 1.

<sup>4</sup> Operating ratio is the ratio of UWSCG's operating expenses over its operating revenue, with "operating expenses" meaning all expenses of UWSCG on operation and maintenance including staff salaries, cost of energy, chemicals and consumables, routine maintenance, spare parts, consumables, etc. but excluding capital expenditure and debt service obligations. The "operating revenue" means the revenue collected by UWSCG from the sale of water and other revenues excluding grants from the government.

16. UWSCG project units are adequately staffed with efficient and experienced personnel. Project staff is trained in procedural requirements of the ADB and the national accounting standards. The financial management systems at UWSCG applied in the agency's project operations are found to provide a reasonable and sufficient basis for determining the state of finances at agency and project levels. All the projects are subject to external audit annually by private audit group and the opinions are being reviewed and analyzed by CWOD - Financial Management Specialist and corrective actions, if any are proposed to UWSCG. The financial audit reports for the previous projects indicate that the funds flows from ongoing projects and local sources are satisfactory and there are no significant qualifications in the auditor's reports. The funds flow procedures are established for each project to facilitate monitoring and control. Projects do not experience delays in release of local counterpart funds and financial performance monitoring systems ensures efficient execution of projects.

17. UWSCG is experienced in ADB funding arrangements, as well as those in other international lending agencies. UWSCG coordinates with MOF and designated banks for all local and foreign project transactions. UWSCG has procedures to follow the Georgian National Accounting Standard. Manual on systems and procedures to effect policies is available to accounting and finance staff, which satisfies MOF requirements. Guideline manuals are updated as new accounting policies are formulated at national level. Local/in-house policies, all within purview of national accounting law, are formulated and locally approved

18. UWSCG uses the *ORIS* accounting software for internal and project operations. UWSCG is now implementing new software, FMG Soft, which allows the department of procurement, accounting, transportation and logistics to work in one system. Linking those systems in one network will sophisticate working efficiency and maximize information exchange between central and project units, which in its case will decrease delays in reporting. Software allows tracking of the each contract individually, which helps the tracking and monitoring the progress of projects

19. Utilities are not required to have internal audit functions by GNEWRC. The management consultant is working with UWSCG to improve internal controls including financial management, accounts, revenue and expenditure management. Accordingly, UWSCG has been able to discover certain instances of unauthorized transactions (not related to ADB or international lending projects), where UWSCG initiated immediate action and strict internal controls were put in place. UWSCG are audited annually by an external auditor and are provided with unqualified opinions.

20. UWSCG comply with reporting needs of MOF and other agencies as well as ADB project periodic reporting. The monitoring and reporting has been improved further as the construction supervision consultants and management contractors are assisting UWSCG in reporting and monitoring activities.

## **B. Disbursement**

21. The loan proceeds for financing goods, works, and consulting services shall be disbursed in accordance with ADB's Loan Disbursement Handbook (2015, as amended from time to time),<sup>5</sup> and detailed arrangements agreed upon between the Government and ADB. Online training for project staff on disbursement policies and procedures is available at:

---

<sup>5</sup> Available at: <http://www.adb.org/documents/loan-disbursement-handbook>

[http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning). Project staff is encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

22. Before the submission of the first withdrawal application, MOF should submit to ADB sufficient evidence of the authority of the two persons who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000 equivalent. Individual payments below this amount should be paid by the EA and subsequently claimed to ADB through reimbursement, unless otherwise accepted by ADB. Withdrawal applications and other loan disbursement information are available at ADB Controller's Department's website, <http://lfis.adb.org>.

### **C. Accounting**

23. UWSCG will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. UWSCG will prepare consolidated project financial statements in accordance with the Government's accounting laws and regulations which are consistent with international accounting principles and practices.

### **D. Auditing and Public Disclosure**

24. UWSCG will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year by UWSCG.

25. UWSCG will also cause the entity-level financial statements to be audited in accordance with international standards for auditing or national equivalent acceptable to ADB, and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited entity-level financial statements, together with the auditors' report and management letter, will be submitted in the English language to ADB within one month after their approval by the competent authority.

26. The annual audit report for the project accounts will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; and (iv) the use of the statement of expenditure procedure certifying to the eligibility of those expenditures claimed under SOE procedures in accordance with ADB's Loan Disbursement Handbook and the project documents.

27. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

28. The Government and UWSCG have been made aware of ADB's approach and procedure for satisfactory and acceptable quality of the audited project financial statements.<sup>6</sup>

---

<sup>6</sup> ADB's approach and procedure on delayed submission of audited project financial statements:

ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

29. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>7</sup> After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

30. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Guidelines (2015, as amended from time to time)<sup>8</sup> and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>9</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Investment Program.

31. **Advance contracting.** The Government has requested ADB's approval of advance contracting for civil works construction of: (i) sewerage systems in Zugdidi; (ii) design, build and operate contract for sewage treatment plant (STP) in Zugdidi and Mestia; and (iii) recruitment of consultants.

32. **Retroactive financing** For Project 5, ADB will finance a maximum amount of eligible expenditures up to the equivalent of 20% of the loan for Project 5 (approximately \$15 million) incurred before Project 5 loan effectiveness but not earlier than 12 months before the signing of the Loan Agreement for Project 5. Retroactive financing shall apply to civil works and consulting services under Project 5 loan.

- 
- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
  - When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
  - When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

<sup>7</sup> Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>8</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

<sup>9</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

## **B. Procurement of Goods, Works and Consulting Services**

33. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines.

34. Project 5 loan includes: (i) one international competitive bid (ICB) for procurement of civil works for sewerage system in Zugdidi; and (ii) one ICB for design, build and operate contract for STP in Zugdidi and Mestia.

35. Bidders eligibility will be determined in accordance with ADB's Procurement Guidelines. Accordingly, no bidder or potential bidder shall be declared ineligible for ADB financed contracts for any reason other than those set out in ADB's Procurement Guidelines. For goods or services funded by loans from ADB's Special Fund resources, payments are limited to goods produced in, and services supplied by, developed member countries that have contributed to such resources and all developing member countries.

36. Before the start of any procurement ADB and the Government will review the public procurement laws of the Government to ensure consistency with ADB's *Procurement Guidelines*.

37. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

38. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants.<sup>10</sup> The terms of reference for all consulting services are detailed in Section D.

39. There are 2 main consulting contracts as under:

- (i) Construction supervision consultant contract: It is proposed to use Quality and Cost Based selection (QCBS) method for selection of the consultant with a standard quality:cost ratio of 90:10. The contract is for construction supervision of the works covered under Project 5 only. For supervision of works covered under subsequent tranches, the construction supervision consultants will be selected by following a separate selection process.
- (ii) The Auditor will have to be appointed for financial audits of Project 5 for FY2015 to FY2019. UWSCG has proposed to follow a LCS process for selection of the consultants and the terms of reference are attached in section D.

<sup>10</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

### C. Procurement Plan for Tranche 5

#### Basic Data

<b>Project Name:</b> Urban Services Improvement Investment Program	
<b>Project Number:</b> 43405	<b>Approval Number:</b> [L****]
<b>Country:</b> Georgia	<b>Executing Agency:</b> Ministry of Regional Development and Infrastructure
<b>Project Procurement Classification:</b> B	<b>Implementing Agency:</b> United Water Supply Company of Georgia LLC
<b>Procurement Risk:</b> Low	
<b>Project Financing Amount:</b> \$90 million <b>ADB Financing:</b> \$75 million <b>Cofinancing (ADB Administered):</b> Not applicable <b>Non-ADB Financing:</b> \$15 million	<b>Project Closing Date:</b> 30 June 2019
<b>Date of First Procurement Plan:</b> [Loan Approval Date]	<b>Date of this Procurement Plan:</b> [Loan Approval Date]

#### Process Thresholds, Review and 18-Month Procurement Plan

##### Project Procurement Thresholds

40. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	Above \$5,000,000	
International Competitive Bidding for Goods	Above \$1,000,000	
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods	
Shopping for Works	Below \$100,000	
Shopping for Goods	Below \$100,000	

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	RFP (Quality:Cost ratio 90:10)
Quality Based Selection	
Consultants' Qualifications Selection	
Least-Cost Selection	RFP
Fixed Budget Selection	

##### Goods and Works Contracts Estimated to Cost \$1 Million or More

41. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value*	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-01	Procurement of works for Sewerage System	\$31.37 million	ICB - Works	Prior	1S1E	Q4/2015	Large Works

	Construction in Zugdidi						
CW-02	Procurement of civil, mechanical and electrical works for STP Construction in Mestia and Zugdidi (Design, Build and Operate)	\$44.70 million	ICB - Design, Build and Operate	Prior	2S	Q1/2016	Design Build Operate

(\*including VAT)

### Consulting Services Contracts Estimated to Cost \$100,000 or More

42. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months:

Package Number	General Description	Estimated Value*	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CONS-01	Construction Supervision Consultant	\$2.87 million	QCBS	Prior	Q4/2015	FTP	International assignment Quality:Cost ratio of 90:10
CONS-02	Auditor for auditing APFS for FY2015, FY2016, FY2017, FY2018 and FY2019	\$0.23 million	LCS	Prior	Q1/2016	BTP	National assignment

(\*including VAT)

### Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

43. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months:

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments



### Indicative List of Packages Required Under the Project

44. The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Comments

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Comments

### D. Consultant's Terms of Reference

45. The terms of reference for procurement of consultants for various activities as per the procurement plan are attached as per details given below:

- Auditors for auditing APFS from FY2015 to FY2019 (Annexure 1)
- Construction supervision consultants (Annexure 2)

## VII. SAFEGUARDS

### A. Social Safeguards

46. In order to ensure compliance with ADB Safeguard Policy Statement (2009), MRDI as Executing Agency and UWSCG as Implementing Agency will ensure social safeguards compliance under the Investment Program. The Government adopted on 17 December 2010 a land acquisition and resettlement framework (LARF), upon which social safeguards compliance for all projects are based. The involuntary resettlement process as required under the LARF will be followed during implementation and necessary resettlement plans will be prepared.

47. The LARF will be reviewed regularly and, if necessary, updated during later tranches of the MFF, if indicated by unanticipated new types of impacts (review of applicability and relevance). The eligibility and entitlement provisions of the LARF will not be lowered in subsequent revisions and updates.

48. An involuntary resettlement due diligence was conducted to determine the impacts and consequently Project 5 is classified C. There is no land acquisition involved in Zugdidi and Mestia for the construction of pumping stations and sewage treatment plants, as they are being constructed on the existing state owned lands. The sewer network will be laid within the right of way of the public roads.

49. In case of any unanticipated impacts during construction, civil works for that section will be temporarily suspended. UWSCG will inform ADB, and will prepare a resettlement plan for review and approval by ADB, which will be disclosed and implemented, and a monitoring report will be submitted prior to possessing the land and commencing the civil works.

### B. Environmental Safeguards

50. In order to ensure compliance with ADB Safeguard Policy Statement (2009),<sup>11</sup> MRDI as Executing Agency and UWSCG as Implementing Agency will ensure the implementation of the following requirements and procedures for the Investment Program. MRDI has endorsed the Environmental Assessment and Review Framework (EARF) that has been prepared for the Investment Program, which was updated in May 2015.<sup>12</sup>

Environmental Management Actions	Implementation Activities	Conditions Required to Complete Actions
<b>Pre-construction commences</b>	Activity 1: Project becomes effective	
Environmental recording system established in IPMO, UWSCG	Activity 2: IPMO established with ESU. Environment staff appointed to ESU A track records system to be established and functional	Budget, facilities and staff for ESU have been provided according to Loan Agreement
Design and implement baseline monitoring for environmental conditions	Activity 3: Prepare project baseline environmental matrix in the IEEs	

<sup>11</sup> Available at: <http://www.adb.org/documents/safeguard-policy-statement>

<sup>12</sup> Updated EARF is available at: <http://www.adb.org/projects/documents/urban-services-improvement-investment-program-may-2015-earf>

<b>Environmental Management Actions</b>	<b>Implementation Activities</b>	<b>Conditions Required to Complete Actions</b>
<p>ES prepares Design Brief for design consultants that incorporates EMP Design requirements</p> <p>ES checks Design Brief meets EMP requirements</p>	<p>Activity 4: Pre-construction: Design; Incorporation of EMP requirements</p>	<p>Appointment of Design and Supervision consultant with necessary technical capacity to address EMP requirements</p>
<p>ES extracts construction requirements from EMP and pass to design consultants for inclusion in Tender documents</p> <p>ES reviews Tender documents and confirm that environmental management provisions are sufficient</p>	<p>Activity 5: Tender documents prepared</p>	<p>Standard environmental conditions have been prepared which are integrated into Tender documents</p> <p>IEEs are attached to the tender documents</p>
<p>ESU review environmental conditions of Bid and rank contractors on this ability</p> <p>ESU review and ensure environmental monitoring and supervision tasks in the CSC's contract</p>	<p>Activity 6: Tenders evaluated and Contractor appointed</p> <p>Construction Supervision Consultant hired</p>	<p>ES to be a member of the Bid Evaluation Panel</p>
<p>ES reviews SEMP</p>	<p>Activity 7: Contractor prepares SEMP</p>	<p>Contractor appoints Environmental Manager</p> <p>After award of contract Contractor has maximum 30 days and prior to commencing civil works to prepare SEMP</p> <p>ADB CWRD Guidance notes on preparing SEMP available</p>
<p>CSC endorses and ESU verifies the acceptability of SEMP's at site meeting</p> <p>ESU ensure that all permits are obtained as required by the national regulations</p>	<p>Activity 8: Contractor inducted to site by ESU</p>	<p>Contractor cannot take possession of construction site until (i) SEMP has been approved, (ii) permits have been obtained as required by the national regulations, and (iii) induction is completed satisfactorily</p>
<p>ES informs IPMO that Contractor is now cleared to start work</p> <p><b>Pre-construction completed</b></p>	<p>Activity 9: Contractor approved to start work</p>	

<b>Construction commences</b>	Activity 1: Contractor begins work.	
CSC assists in:  ES, IPMO monitors contractor's SEMP compliance activities  ES audits construction activities  ES evaluates monitoring program	Activity 2: Environmental monitoring undertaken and reports prepared. By Contractor: Monthly environmental report sent to IPMO  By CSC: Environmental performance reflected in a section of quarterly project progress reports  By IPMO: Bi-annual environmental report to ADB and country environmental agency within 1 month after each half of the calendar year	Contractor complies with SEMP requirements for implementing and monitoring work on-site Contractor, CSC and IPMO comply with reporting requirements on environmental safeguards  ADB CWRD Guidance notes on preparing monitoring reports available
<b>Construction completed</b>	Activity 3: Construction completed and project commissioned	Project works completed in accordance with the SEMP and all sites satisfactorily rehabilitated and restored.  ES reviews and sign-off on completed work  The STPs are successfully commissioned by the Contractor under design, build and operate contract  Final environmental monitoring report prepared (post-construction environmental audit report) as part of the hand-over memorandum  Payments may be withheld if sites not cleared and closed to meet SEMP specifications

ADB = Asian Development Bank, CSC = construction supervision consultant, CWRD = Central and West Asia Department, EMP = environmental management plan, ES = environmental specialist, ESU = environmental safeguards unit, IEE = initial environmental examination, IPMO = investment program management office, SEMP = site environmental management plan, STP = sewage treatment plant, UWSCG = United Water Supply Company of Georgia.

Source: Asian Development Bank.

51. UWSCG will require the contractors to prepare and implement site specific environmental management plan (EMP) for each subproject in order to implement the environmental requirements of the IEEs, which will also form an integral part of construction contracts. The site specific environmental management plans will be endorsed by the

construction supervision consultants, and subsequently approved by UWSCG. Environmental mitigation measures during construction will be implemented by the contractor, and will be monitored by the construction supervision consultant. UWSCG will be responsible for overall EMP implementation with assistance from the construction supervision consultant and environmental consultant engaged by UWSCG under IPMO.

52. Any change in investment scope and technical design will be promptly informed by UWSCG to ADB, and the respective IEE/EMP will be updated by the consultant, which will be endorsed by the construction supervision consultant and UWSCG before submitting to ADB for disclosure. Unanticipated environmental impacts will be promptly reported to ADB and no civil works are allowed until a solution for mitigation or compensation is sought.

53. Meaningful public consultation with project affected people and stakeholders for all the IEEs including updated IEEs are required. Disclosure on ADB website and to the project affected people will be made for the safeguard documents and monitoring reports.

54. All the complaints will be handled by the project Grievance Redress Mechanism and in compliance with the ADB Accountability Mechanism Policy 2012.

55. Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS.

### VIII. GENDER AND SOCIAL DIMENSIONS

56. To support the primary goal of the Investment Program in ensuring effective and sustainable WSS systems, gender development will be addressed in the Investment Program. A gender and social development consultant is engaged under IPMO to assist UWSCG in implementing the GAP and reaching the targets. Projects 1, 2, 3, and 4 are classified as effective gender mainstreaming, and each tranche has a GAP. While most actions under GAP are on track, the following require further attention by UWSCG management, (i) sex-disaggregated customer review, (ii) HR development strategy to increase women in UWSCG management, (iii) 30% of customer service center staff are women (currently achieving 15-26%), and (iv) verification of new jobs being advertised encouraging qualified women to apply.

57. UWSCG has plans to improve career and employment opportunities, and to establish a gender balanced human resource management system. To conduct regular gender analysis and identify gender trends in employment the UWSCG introduced a sex-disaggregated employee database. Currently, 23.5% of employees are women in the company. In the head office, 15% of top management are women.

58. The GAP prepared under Project 4 for Zugdidi town will continue to be implemented under Project 5,<sup>13</sup> which would comprise of

- (a) maintenance of a sex-disaggregated database to conduct annual gender analysis and implement gender sensitive human resource strategy, and
- (b) facilitate women's career development by encouraging the enrolment of girls at the WSS program at university level and the employment of women (15% minimum of new positions created through the project), with a stipulation that all advertisements explicitly encourage applications from qualified women. This is in agreement with UWSCG in recognition of likely new jobs divided between technical/admin (indoors) and manual/maintenance (outdoor). Also, the minimum target for female employment in customer service center is 30% in line with agreed ongoing practice.

59. UWSCG's outreach to the communities will be improved, particularly to address women as household managers and water collectors. During previous tranches, an information, education and communication (IEC) campaign was conducted (including in Mestia town) by an apex nongovernment organization (NGO) with an extensive experience of working on gender issues and dissemination of information throughout the country. The apex NGO worked through local NGOs to address gender issues within the Investment Program. Involvement of NGOs facilitated better participation of communities, improved grievance and complaint mechanisms and awareness amongst the communities about the Investment Program. The materials developed by the NGO for the IEC campaign is being used for further communication campaigns under Projects 4 and 5. The Investment Program will develop an IEC campaign in all appropriate languages to educate communities on the above issues and inform them about the Investment Program benefits. Before rolling out a country wide IEC, the content and mode of delivery of the IEC will be tested in the urban centers of Zugdidi.

---

<sup>13</sup> GAP was prepared for Zugdidi town under Project 4, which was approved by ADB management on 11 December 2014. Under Project 4, water supply system for Zugdidi town was covered, and under current Project 5, the sewerage system will be covered for Zugdidi town.

60. Through a pilot project in Zugdidi baseline data on household water management and sanitation practices will be created by conducting a household survey under Project 4 and activity will continue under Project 5. A post-intervention survey will be conducted after the IEC campaign and compare with the baseline. This will show if and why households were convinced to access the water and sanitation services of the UWSCG. The household survey and IEC will be conducted by UWSCG. Impact assessment of the public awareness in all project areas will further inform UWSCG's country wide public relation campaign.

61. In addition, the GAP will specifically address the needs of households headed by women<sup>14</sup> through the complaints analysis. The UWSCG has already created a sex-disaggregated customer database, and plans to establish a sex-disaggregated complaints database to conduct gender analysis of customer feedback and identify and address women customer's needs and priorities accordingly.

### Gender Action Plan – Project 5

Action and Description	Target/Indicator and Timeframe	Institutional Responsibility
<b>Output 1: Infrastructure Improvement</b>		
Ensure construction of sewerage networks include house connections to all households in Zugdidi	<ul style="list-style-type: none"> <li>100% female-headed households have access to sanitation facilities</li> </ul>	UWSCG
<b>Output 2: Project Implementation Support</b>		
<p>Knowledge of gender specific customer behavior gained</p> <ul style="list-style-type: none"> <li>Conduct survey on household water management, household needs, sanitation practices and knowledge gaps in Zugdidi</li> <li>Analyze knowledge gaps of households (especially women as household managers) on water, hygiene, sanitation, environmental impact of sewage, customer rights, and efficient water use</li> </ul> <p>Gender sensitive public relations campaign and outreach program developed and implemented</p> <ul style="list-style-type: none"> <li>Develop IEC material on water, hygiene, sanitation, customer rights and water usage efficiency based on customer needs, knowledge gaps, and gender sensitive needs assessment</li> <li>Train staff of customer care centers as hygiene and sanitation advocates in Poti and Zugdidi</li> <li>Roll out public awareness program in Poti and Zugdidi</li> </ul>	<ul style="list-style-type: none"> <li>Results of survey are analyzed in report (2014)</li> <li>Public awareness program is informed by survey results (2014)</li> <li>50% target of women reached by the public awareness program (2018)</li> <li>IEC material on water, hygiene and sanitation practices, customer rights, complaint mechanisms is disseminated in Poti and Zugdidi (2015- continuous)</li> <li>Local women NGOs and female community leaders involved in IEC material distribution and are trained to conduct public awareness program (2015-continuous)</li> <li>All staff of customer care centers trained on water, hygiene, sanitation practices, customer rights and complaint mechanisms (2015-continuous)</li> </ul>	UWSCG

<sup>14</sup> Female-headed household means a household financially managed by a woman/lacking a male head.

Action and Description	Target/Indicator and Timeframe	Institutional Responsibility
<p>Complaints redressed in a gender sensitive way</p> <p>– Sex-disaggregated customer complaints database established</p> <p>Female Recruitment encouraged</p>	<ul style="list-style-type: none"> <li>• Annual report on quantity and redress of complaints published (2015-continuous)</li> <li>• Annual report to also include gender analysis of complaints (2015-continuous)</li> <li>• 15% minimum of new positions created through the project are for women (2015-continuous)</li> <li>• At least 30% of customer care unit staff are women (2015-continuous)</li> <li>• encouraging a pipeline of female water sector professionals through encouraging the enrolment of girls at the WSS program at university level</li> </ul>	

IEC = information-education-communication, NGO = nongovernment organization, UWSCG = United Water Supply Company Limited.

Source: Asian Development Bank.



## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Project Design and Monitoring Framework

**Impacts the Project is aligned with:**

Improved health of residents in the urban centers of Zugdidi and Mestia (Water Supply and Sanitation Sector Development Plan 2011-2020)

<b>Project Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<b>Outcome</b> Sanitation services improved in urban centers of Zugdidi and Mestia	a. Residents' access to safe sanitation increased from Nil in 2013 to 100% in 2018 for Zugdidi through provision of sewer connections to all existing 20,600 households, and a sewage treatment plant commissioned in Mestia for safe disposal of sewage by 2018 b. 100% households headed by women in the region covered by 2018	a. National statistics on water supply quality and effluent discharge from MEPNR, MA, and UWSCG b. Annual sex disaggregated socioeconomic surveys undertaken as part of the PPMS to determine public satisfaction with the quality of water supply and sanitation	National Government's failure to progressively increase water and wastewater tariffs and to provide viability gap funding on time during project operation
<b>Outputs</b> 1. Infrastructure Improvement: Sewerage and sanitation system efficiency improved through construction and expansion	1a. About 178 km of sewer lines constructed in Zugdidi by 2018 1b. About 23 sewage pumping stations constructed in Zugdidi, and sewage pumps operating daily and discharging sewage to treatment plants by 2018 1c. Sewage treatment plants of capacity about 11 mld in Zugdidi and about 1.5 mld in Mestia constructed by 2018 to treat and safely discharge of sewage	1a. to 1c. - Semi-annual progress reports prepared by UWSCG, PPMS reports prepared by UWSCG, project component completion and commissioning certificates of construction supervision consultant	

2. Project Implementation Support: Public awareness program effectively implemented, information on hygiene and sanitation disseminated	<p>2a. Public awareness program to disseminate information on hygiene and sanitation targeting women as household managers rolled out in Zugdidi with the help of construction supervision consultants and investment program management office by 2017</p> <p>2b. Service center in Zugdidi having a customer care unit staffed by at least 30% women by 2017 that informs and educates the public about water, hygiene, and sanitation</p>	2a. to 2b. - Semiannual progress reports prepared by UWSCG, PPMS reports prepared by UWSCG, UWSCG annual work plans	
---	--	---	--

### Key Activities with Milestones

#### 1. Component 1: Infrastructure Improvement

- 1.1 Sewerage system constructed in Zugdidi (December 2018).
- 1.2 Sewage treatment plants in Zugdidi and Mestia constructed (December 2018).

#### 2. Component 2: Project Implementation Support

- 2.1 Construction supervision consultants appointed (December 2015).
- 2.2 Sex-disaggregated consumer database for targeted marketing campaigns in Zugdidi created (December 2015).
- 2.3 Information awareness campaigns on water, hygiene and sanitation practices, consumer rights, complaint mechanisms in Zugdidi conducted (December 2017).
- 2.4 GAP implemented (December 2017).

#### Inputs

##### Loan

ADB: \$75 million from OCR (\$43 million) and ADF(\$32 million)  
Government: \$15 million

#### Assumptions for Partner Financing

Not Applicable

ADB = Asian Development Bank, ADF = Asian Development Fund; GAP = gender action plan, km = kilometer, MA = Ministry of Agriculture, MEPNR = Ministry of Environment Protection and Natural Resources, mld = million liters per day, OCR = ordinary capital resources, PPMS = project performance management system, UWSCG = United Water Supply Company of Georgia LLC.

Source: Asian Development Bank.

## B. Monitoring

62. **Project performance monitoring:** Disaggregated baseline data for output and outcome indicators gathered during Investment Program processing will be updated and reported quarterly through Investment Program quarterly progress reports prepared by UWSCG, and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>15</sup>

63. **Compliance monitoring:** Compliance on covenants will be monitored through regular ADB review missions and on a quarterly basis in discussion with UWSCG and MRDI.

64. **Safeguards monitoring:** Monitoring and reporting of the implementation on safeguards compliance with requirements and procedures will be prepared by UWSCG. Based on the contractor's monthly site inspection reports, semi-annual environmental safeguards monitoring reports will be prepared with assistance from the UWSCG's environmental consultant, and submitted to ADB for disclosure within 1 month of the reporting period, i.e. by end of July and January respectively. The reports will also be disclosed on UWSCG website in Georgian language. External monitoring will be carried out by an Independent Monitoring Agency appointed by UWSCG in two phases, once during the RP implementation, and once a year later. The monitoring reports will be submitted prior to possessing the land, and commencing the civil works. Quarterly project progress reports will include a section on safeguard covenants' compliance and safeguard performance.

65. **Gender and social dimensions monitoring:** See DMF and the GAP for monitoring indicators. Currently, the IPMO reports on GAP indicators and a consultant appointed under regional technical assistance (RETA) confirms the figures. The RETA consultant is also guiding on UWSCG's public awareness program. GAP implementation monitoring table for the Project will be attached to the quarterly progress reports.

## C. Evaluation

66. Within 6 months of physical completion of each project under the Investment Program the MRDI will submit a project completion report to ADB.<sup>16</sup>

## D. Reporting

67. UWSCG will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency audited financial statements, together with the associated auditor's report, should be adequately reviewed.

<sup>15</sup> ADB's project performance reporting system is available at:  
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

<sup>16</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

## **E. Stakeholder Communication Strategy**

68. The Project intends to maximize the benefits by transparently communicating relevant project information to stakeholders by various means. The consultations are being carried out during design and implementation of the WSS system and gender analysis is being carried out on needs and problems of men and women in relation to WSS services, with minimum 50% participation from women. The stakeholder communication strategy during project execution aims to: (i) improve public support and sustainability of the rehabilitated/upgraded WSS systems; (ii) facilitate change in the hygiene and sanitation practices of the population in the project area; and (iii) promote public feedback during the construction and operation phase of the facilities. Item (ii) is covered under the hygiene and sanitation promotion under the GAP. Promotion of public feedback (item iii) is covered under the Grievance Redress Mechanism disclosure for the IEE implementation, establishment of customer care units, and web disclosure of safeguards plans/monitoring reports, contract awards, and audited financial statements.

69. UWSCG will disclose all key project-related information, including the scope, cost, and financial and institutional arrangements of the Project, project safeguard reports such as IEE, and procurement related information in English and Georgian languages on their respective websites. When the new water and sewer connections are being given or when the UWSCG introduces new tariff and other charges, they will conduct extensive consultations and establish communication programs with support of consultants in order to ensure effective participation, understanding and support of stakeholders.

70. As a part of the IPMO team, UWSCG has a Safeguard Specialist who would act as a focal point for regular contact with the project affected people and other stakeholders. In addition the customer care units will be designated as program focal points for regular contact with other interested stakeholders. All the key project related information will be made available with the local UWSCG offices in Georgian language. The safeguard specialist from construction supervision consultant will supervise monitor implementation of EMP and GAP. The Director of UWSCG will be responsible person for monitoring the disclosure and dissemination of the information. The communication strategy for the program is summarized in the table on the next page.

## Communications Strategy Matrix for Project 5

Communications Context: <i>Public support and sustainability of the rehabilitated/expanded sewerage and sanitation system in the project areas depend on increased public awareness on the benefit of these investments to their wellbeing and modification in their hygiene and sanitation practices. Moreover, quality of construction works and UWSCG service also need transparency and an effective mechanism for receiving and addressing public feedback.</i>									
Project Objective: <i>Safe, reliable, and sustainable sewerage and sanitation system that contribute to improved living standards and environment in the project areas</i>									
Strategic Elements						Work Plan Elements			Evaluation
Communication Objective	Key Risks	Audience	Current/ Desired Behavior	Messages/ Info Needs	Channel Activity	Time	Responsibility	Resource Needs	Expected Outcomes
1. Public is informed of the benefits of (a) improved WSS, and (b) hygiene/sanitation practices to the population in the project areas <sup>17</sup>	Lack of interest to connect to the improved sewerage and sanitation system  and  unwillingness to change behavior related to hygiene and sanitation	Households in the project areas	Move from unwillingness to willingness to connect  Improved behavior related to hygiene and sanitation	Incidence of waterborne diseases and how an improved sewerage and sanitation system and better hygiene can save money and time	IEC materials (posters/pamphlets) distributed in schools, offices, market places and hospitals/clinics in project towns  Newspaper ads and articles  Training and seminars	2013 - continuous	Local women NGOs and female community leaders involved in IEC material distribution and are trained to conduct public awareness program  Staff of service centers trained on water, hygiene, sanitation practices, customer rights and complaint mechanisms		Target households connections to the improved/ upgrade sewerage system achieved  Target improvement in hygiene of population achieved

<sup>17</sup> This is part of the Gender Action Plan for the Investment Program.

Communications Context: <i>Public support and sustainability of the rehabilitated/expanded sewerage and sanitation system in the project areas depend on increased public awareness on the benefit of these investments to their wellbeing and modification in their hygiene and sanitation practices. Moreover, quality of construction works and UWSCG service also need transparency and an effective mechanism for receiving and addressing public feedback.</i>									
Project Objective: <i>Safe, reliable, and sustainable sewerage and sanitation system that contribute to improved living standards and environment in the project areas</i>									
Strategic Elements						Work Plan Elements			Evaluation
Communication Objective	Key Risks	Audience	Current/ Desired Behavior	Messages/ Info Needs	Channel Activity	Time	Responsibility	Resource Needs	Expected Outcomes
2. Stakeholders informed of likely environmental impacts during construction and mitigation measures planned and actually conducted	Complaints from local communities may cause delay	Communities	Maintain support for the project	Information on subproject environmental impacts and mitigation measures	Visits by environment specialists of IPMO and construction supervision consultants  Posting of updated IEEs/EMPs and EMRs in the ADB website  Explanations by contractors		UWSCG (through its social development specialists from IPMO and construction supervision consultant, and contractors		No complaint received from local community on management of environmental impacts from the subprojects
3. Stakeholders/ general public informed of mechanism for providing feedback on the project thereby improving quality of project outputs	Unidentified feedback or unresolved concerns may affect quality of construction and operations of the facilities	Communities	Improved public feedback and support for the construction activities and improved quality of UWSCG service	Information on subproject Grievance Redress Mechanism under IEE  Information on the UWSCG customer care units	Visits and consultations by IPMO and construction supervision consultants' specialists  IECs (included in item 1)		UWSCG (through its IPMO and local offices)  Customer care units		Public feedback/ complaints are received and addressed leading to improved quality of construction and improved operations of the UWSCG

Communications Context: <i>Public support and sustainability of the rehabilitated/expanded sewerage and sanitation system in the project areas depend on increased public awareness on the benefit of these investments to their wellbeing and modification in their hygiene and sanitation practices. Moreover, quality of construction works and UWSCG service also need transparency and an effective mechanism for receiving and addressing public feedback.</i>									
Project Objective: <i>Safe, reliable, and sustainable sewerage and sanitation system that contribute to improved living standards and environment in the project areas</i>									
Strategic Elements						Work Plan Elements			Evaluation
Communication Objective	Key Risks	Audience	Current/ Desired Behavior	Messages/ Info Needs	Channel Activity	Time	Responsibility	Resource Needs	Expected Outcomes
4. Bidders and the public are informed of contract awards	Complaints from bidders or interested parties may delay works	Bidders/ general public	Improved trust on the selection of contracts for civil works and supply of goods	Info on results of bid evaluation	Publication in a local newspaper or widely available website	Upon UWSCG signing of bid evaluation report	UWSCG (through Procurement Specialist under IPMO)		Improved transparency in contracting and improved public trust
5. General public is informed of project expenditures	Low public trust on the expenditures may affect willingness to support project during implementation	General public	Improved public trust	Audited financial report	Disclosure in ADB website	Within 30 days upon receipt	ADB Project Team		Improved transparency and public trust in expenditures related to the project

ADB = Asian Development Bank, EMP = environmental management plan, IEC = information-education-communication, IEE = initial environmental examination, UWSCG = United Water Supply Company Limited, WSS = water supply and sanitation.

Source: Asian Development Bank.

## **X. ANTICORRUPTION POLICY**

71. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.<sup>18</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.<sup>19</sup>

72. To support these efforts, relevant provisions are included in the framework financing agreement, loan and project agreements, loan regulations, and the bidding documents for the Investment Program. The Government will disclose to the public, and update annually the current status of the Investment Program and how the proceeds of the facility are used. For each contract financed under the Investment Program, UWSCG will disclose on their respective websites information on, among others, the: (i) list of participating bidders; (ii) name of the winning bidder; (iii) basic details on bidding procedures and procurement methods adopted; (iv) amount of contract awarded; (v) list of goods/services, including consulting services procured; and (vi) intended and actual utilization of the facility proceeds.

---

<sup>18</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>19</sup> ADB's Office of Anticorruption and Integrity website is available at: <http://www.adb.org/integrity/unit.asp>



## **XI. ACCOUNTABILITY MECHANISM**

73. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>20</sup>

---

<sup>20</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

## **XII. RECORD OF PAM CHANGES**

### **74. PAM Updates**

Initial PAM	:	11 June 2015
Revised	:	14 August 2015

## ANNEXURE 1

### TERMS OF REFERENCE FOR THE AUDIT OF THE ANNUAL PROJECT FINANCIAL STATEMENTS OF THE URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM – PROJECT 5 (Loan \*\*\*\*-GEO and Loan \*\*\*\*-GEO(SF), PROJECT 5 FOR THE YEAR ENDING DECEMBER 31, 2015 to DECEMBER 31, 2019

#### I. Background

1. The management of the United Water Supply Company of Georgia LLC (UWSCG) requires an auditor to carry out an audit of the Annual Project Financial Statements (APFS) for the loan listed below under Urban Services Improvement Investment program (USIIP):

- Project 5: Loan \*\*\*\*-GEO and Loan \*\*\*\*-GEO - Loan Agreements dated on \*\*\*\*.

2. The auditor will initially provide to UWSCG the Audit Opinion on the Annual Project Financial Statements (APFS) and Management Letter (with copies to ADB) for the financial year (FY) ending on December 31, 2015 (FY2015) for the above loan, and for subsequent FYs from FY2016 to FY2019, subject to extension of the contract annually by UWSCG based on the satisfactory performance of the auditors for auditing of the APFS for the previous FY.

#### II. Objectives

3. The objective of the APFS is to enable the auditor to express an opinion on the financial position of the Project listed above for the five financial years ending on 31 December (FY2015 to FY2019), and on the funds received and expenditures for the year then ended.

4. The prospective auditors are required to submit a proposal and a work plan to provide the audit services by addressing among other things:

- the extent (if any) that the auditor would not conform to the agreed auditing standards and indicate any alternative standards, if any;
- whether the audit would be conducted as a completed audit (i.e., will the auditors carry out their audit after financial yearend, when the books of account are, or are being, closed);
- whether an audit carried out after financial year-end would be supplemented by one or more interim audits during a financial year. The principal purpose is to test ongoing systems and internal controls, and to relieve pressure on the staff of the entity and on the auditor at year-end;
- the manner in which the auditor proposes to address any statutory requirements relating to audit (e.g., certifications relating to shareholders' equity required under the companies' act) or to which they may be implicitly bound by contractual obligations of the employer (e.g. ADB auditing requirements);
- specific actions required on the part of UWSCG (e.g., access to computer systems and records, disclosures);
- discussions before signing the opinion and report on any matters arising from the audit, and with whom these discussions would be held; and
- the timetable for provision of opinions and reports.

### III. Scope of Services (for each FY)

5. **Auditing Standards and Program.** The audit will be carried out in accordance with the International Standards of Auditing (ISA) as published by the International Auditing and Assurance Standards Board of the International Federation of Accountants (IFAC), with special reference to ISA 800 (Auditor's Report on Special Purpose Audit Engagements) and to relevant Asian Development Bank (ADB) guidelines. In conducting the Projects audit, special attention should be paid to the following:

- a) All funds provided by the Asian Development Bank (ADB) and its co-financiers have been used in accordance with the conditions of the Financing Agreement of Loan \*\*\*-GEO(SF) and Loan \*\*\*\*-GEO dated \*\*\*\*, with due attention to economy and efficiency, and only for the purposes for which the loan was granted;
- b) Counterpart funds have been provided and used in accordance with the conditions of the relevant financing agreement, with due attention to economy and efficiency, and only for the purposes for which the financing was provided;
- c) Goods and services financed have been procured in accordance with the relevant financing agreement;
- d) All necessary supporting documents, records, and accounts have been kept in respect of Project ventures;
- e) The PFS have been prepared in accordance with generally accepted accounting principles and practices and relevant ADB guidelines, and give a true and fair view of the financial position of the Project 5 as of 31 December of each FY, and of resources and expenditures for the year ended;
- f) Review the compliance with covenants in the financing agreement and with ADB's specific requirements with respect to the financial management of the Projects in Article IV of the Loan Agreement;
- g) Provide a statement on the scale, effectiveness and reliability of the accounting and administrative procedures of the borrower;
- h) Provide a report on the efficiency and economy on the use of resources;
- i) Provide comments on the accounting principles adopted by the entity under audit (if other accounting principles were adopted, provide comments on the impact of the financial statements arising from deviations from international accounting standards);
- j) Verify financial and administrative internal control systems; and
- k) Define areas of improvement in the PMO's systems (e.g., improvements in accounting and data processing operations).

6. The audit program will consider the risk of material misstatements resulting from fraud or error. It should include procedures that are designed to provide reasonable assurance that material misstatements (if any) are detected.

7. **Accounting Policies and Changes.** The auditor should comment on the Project's accounting policies, and confirm the extent to which the agreed project accounting policies have been applied. In particular, the auditor should note the impact on the APFS arising from any material deviations from the agreed accounting standards. The auditor should also comment on any accounting policy changes, either during a financial year, or from one year to another.

8. **Project Financial Statements.** The Projects Financial Statements should be prepared in accordance with the cash-based International Public Sector Accounting Standard (IPSAS) promulgated by the International Federation of Accountants (IFAC). In addition to the Cash

Receipts and Disbursement Statement, Project Financial Statements shall include statement of Sources and Uses of Funds for the current fiscal year and accumulated to date, showing comparison of budget and actual funds received from ADB and counterpart funds separately and use of funds by main categories of expenditures.

9. The auditor should pay particular attention as to whether:

- expenditures have been made wholly and necessarily for the realization of Project objectives;
- information and explanation necessary for the purpose of the audit have been obtained;
- supporting records and documents necessary for purpose of the audit have been retained.

10. **Management Letter.** On conclusion of the audit, the auditor will prepare a Management Letter for the audited Project, detailing:

- a) Any material weaknesses in the accounting and internal control systems that were identified during the audit;
- b) Recommendations to rectify identified weaknesses;
- c) The status of significant matters raised in previous management letters;
- d) Practical recommendations on the steps that could be taken to become materially compliant with the agreed project accounting policies, together with a time frame for making these changes;
- e) The degree of compliance with each of the financial covenants in the loan agreement and recommendations for improvement;
- f) Matters that have come to the auditor's attention during the course of the audit which have a significant impact on project implementation;
- g) Any other matters that the auditor considers should be brought to the attention of the Project's management; and
- h) Significant matters that the auditor considers should be brought to ADB's attention.

11. **Compliance with Financial Covenants.** The auditor will confirm compliance with each financial covenant contained in the Project legal documents. Where present, the auditor should indicate the extent of any on compliance by comparing required and actual performance measurements for each financial covenant for the financial year concerned. Below are given financial covenants for the loan agreement for Project 5. The auditor shall verify the degree of compliance with each of the financial covenants.

- a) Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Works, Goods, and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount;
- b) Notwithstanding any other provision of this Loan Agreement, no withdrawal shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of, the Borrower, MRDI and UWSCG, and is legally binding upon the parties thereto in accordance with its terms.

12. **Compliance with Financial Assurances.** The auditor will confirm compliance with all financial assurances contained in the Project legal documents. Where present, the auditor should indicate the extent of any noncompliance by comparing required and actual performance of the borrower in respect of these ADB requirements for the financial year concerned.

13. **Use of Funds for the Purpose Intended.** The auditor will confirm, or otherwise, that:

- All external funds have been used in accordance with the relevant financing agreements covering the Project, with due attention to economy and efficiency, and only for the purpose for which the financing was provided;
- Counterpart funds have been provided and used in accordance with the relevant financing arrangements and only for the purpose for which the financing was provided; and
- Goods and services financed have been procured in accordance with the relevant financing agreements.

14. **Record Keeping.** The auditor will pay particular attention to whether all necessary supporting documents, records, and accounts have been kept in respect of all Project activities, with clear linkages between the accounting records and the APFS. This will include: (i) computation and recalculation, including checking the mathematical accuracy of estimates, accounts or records; (ii) reconciliation, including reconciling related accounts to each other, subsidiary records to primary records and internal records to external documents; (iii) physical observation, including inspecting or counting tangible assets, such as materials, inventory, land buildings, property or equipment; (iv) confirmation, including directly confirming balances or transactions with external third parties, such as cash balances, accounts receivable or accounts payable; (v) sampling, including vouching or examining supporting documentation to determine if balances are properly stated; and (vi) tracing, including tracing journal postings, subsidiary ledger balances, and other details to corresponding general ledger accounts or trial balances.

15. **Internal Control Systems.** The auditor will assess the adequacy of the Project financial management systems, including internal controls, including whether: (i) proper authorizations are obtained and documented before transactions are entered into; (ii) accuracy and consistency are achieved in recording, classifying, summarizing and reporting transactions; (iii) reconciliations with internal and external evidence are performed on a timely basis by the appropriate level of management; (iv) balances can be confirmed with external parties; (v) adequate documentation and an audit trail is retained to support transactions; (vi) transactions are allowable under the agreements governing the Project; (vii) errors and omissions are detected and corrected by project personnel in the normal course of their duties, and management is informed of recurring problems or weaknesses; (viii) management does not override the normal procedures and the internal control structure; and (ix) assets are properly accounted for, safeguarded and can be physically inspected.

#### **IV. Experts and Inputs**

16. The auditor must be authorized to practice in Georgia and be capable of applying the agreed auditing standards. The auditor should have adequate staff, with appropriate professional qualifications and suitable experience, including experience in auditing the accounts of entities comparable in nature, size and complexity to the entity whose audit they are to undertake. Audit firm and proposed staff should be from the Member Country of the ADB.

17. To this end, the auditor is required to provide curriculum vitae (CV) of the auditors who will provide the opinions and reports, together with the CVs of managers, supervisors and key personnel likely to be involved in the audit work. These CVs should include details of audits carried out by these staff, including ongoing assignments. Indicative tasks for the auditors are given in Attachment 1.

18. The auditor shall not alter any conditions of Contract and substitute key experts proposed and agreed during Contract negotiation.

## **V. Duration of Contract**

19. The duration of the assignment to conduct financial audit of Project 5 under USIIP would be initially up to December 31, 2016, with possibility of an extension on year on year basis until 31 December 2019 through a written confirmation by UWSCG.

20. The Contract extension would be with mutual consent and subject to satisfactory performance of audit service for the previous FY and prior approval of ADB. Additional Notice to Proceed will be issued to the auditors to notify commencement of the audit for subsequent FY (from FY2016 to FY2019).

## **VI. Deliverables**

21. The schedule for deliverables for auditing of each FY will be as under:

<b>Deliverables</b>	<b>Submission Date</b>
Draft Audit Report	Within 6 weeks from the date of issue of NTP for respective FY
Final Audit Report and Management Letter	1 week after receiving comments from the UWSCG for respective FY

22. The financial statements and auditor's opinion thereon shall be submitted in both Georgian and English. The auditor shall present 6 hard copies of each report in Georgian, 6 hard copies of each report in English and the electronic versions of each in MSWord and PDF formats, as well as in excel (for the Tables).

23. It is highly desirable that the auditor become familiar with the relevant ADB guidelines, which explain the ADB's financing reporting and auditing requirements. Please refer to *Handbook for Borrowers on the Financial Management and Analysis of Projects* which can be accessed from the following website:  
[http://www.adb.org/Documents/Handbooks/Borrowers\\_Fin\\_Gov\\_Mgt\\_Investment/default.asp](http://www.adb.org/Documents/Handbooks/Borrowers_Fin_Gov_Mgt_Investment/default.asp)

24. The auditor should understand that working papers under ADB Projects can be subject to the review by authorized ADB staff.

## **VII. Budget and Payment Terms**

25. The estimated budget (including VAT) for conducting audits of Project 5 for various FY shall be as under, and the auditors are requested to quote the fees for each FY separately while submitting their proposal:

FY2015:       \$ 5,000  
 FY2016:       \$ 25,000  
 FY2017:       \$ 35,000  
 FY2018:       \$ 50,000  
 FY2019:       \$ 35,000

Total:           \$150,000

26. UWSCG will sign a lumpsum payment contract and the payment will be linked to the deliverables of the respective financial year audits, according to following schedule:

<b>Deliverables</b>	<b>Payment Schedule</b>
Draft Audit Report (including Company and Project audit) for each FY	80% of the total Contract Price for the respective FY upon submission of Draft Report, acceptable to the UWSCG for each FY
Final Audit Report and Management Letter for each FY	20% of the total Contract Price for the respective FY upon submission of the Final Report and Management Letter, acceptable to UWSCG/ADB.

## **VII. Support from UWSCG**

27. UWSCG will provide suitable office space for carrying out the services, and all the available required project documentation related to assignment.

28. The responsibility for the preparation of financial statements including adequate disclosure is that of the management of Project Management Office (PMO). This includes the maintenance of adequate accounting records and internal controls, the selection and application of accounting policies, and the safeguarding of the assets of the company. As part of the audit process, the auditor may request from management written confirmation concerning representation made to the auditor in connection with the audit.

29. The Projects' accounts (books of account) provide the basis for the preparation of the APFS and are established to reflect the financial transactions in respect of the Project as maintained by the PMO. The auditor will have full and complete access, at all reasonable times, to all records and documents including books of account, legal agreements, bank records, invoices and any other information associated with the Project and deemed necessary by the auditor. Confirmation should also be obtained of amounts disbursed and outstanding at ADB.

30. The auditor will be impartial and independent from any aspects of management or financial interest in the entity under audit. In particular, the auditor should be independent of the control of the entity. The auditor should not, during the period covered by the audit, be employed by, or serve as director for, or have any financial or close business relationship with the entity. The auditor should not have any close personal relationships with any senior participant in the management of the entity. The auditor must disclose any issues or relationships that might compromise their independence.



**Attachment 1**  
**Position Based Terms of Reference (applicable for each FY)**

<b>Position Title</b>	<b>Key Experts (National)</b>	<b>Expected Inputs (months)</b>	<b>Preferred Qualification</b>	<b>Tasks and Responsibilities</b>
Chief Auditor	<b>National</b>	0.5	<ul style="list-style-type: none"> <li>• Degree in finance / economics or related fields;</li> <li>• working experience in the country/region;</li> <li>• preferable 5 years of working experience in audit company on a leading positions.</li> </ul>	<ul style="list-style-type: none"> <li>• Responsible for the conduction of the Audit</li> <li>• Overall Management;</li> <li>• Issuance of the Audit Opinion</li> </ul>
Audit Manager	<b>National</b>	0.5	<ul style="list-style-type: none"> <li>• Degree in finance / economics or related fields;</li> <li>• preferable 5 years of working experience in audit company on a leading positions, implementing similar assignment.</li> </ul>	<ul style="list-style-type: none"> <li>• General Management of the assignment</li> <li>• Audit Planning</li> <li>• Leading an audit team</li> <li>• Implementation of Pre-Audit Procedures</li> <li>• Approving the Audit Programs</li> <li>• Reviewing the System of Internal Controls</li> <li>• Reviewing Draft Audit Reports (Company and Project) and Draft Management Letters</li> <li>• Reviewing Final Audit Reports (Company and Project) and Final Management Letters</li> </ul>
Senior Auditor	<b>National</b>	1.0	<ul style="list-style-type: none"> <li>• Degree in finance / economics or related fields;</li> <li>• preferably 5 years of working experience as an auditor in the audit company having relevant working experience with donor funded projects and large enterprises/organizations as entity;</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of Pre-Audit Procedures.</li> <li>• Statistical sampling.</li> <li>• Reviewing the System of Internal Control.</li> <li>• Auditing financial statements in accordance with ISA and the ADB's Guidelines.</li> <li>• Reviewing the compliance with accounting principles.</li> <li>• Preparation of auditor's report and management letter</li> <li>• Reviewing the compliance of the Company in terms of tax obligations;</li> <li>• Reviewing Tax Declaration submission and its respective payments;</li> </ul>
Auditor	<b>National</b>	1.0	<ul style="list-style-type: none"> <li>• Degree in finance / economics or related fields;</li> <li>• preferably 3 years of working experience in an audit company as an auditor having relevant experience of auditing donor funded projects and various organizations;</li> </ul>	<ul style="list-style-type: none"> <li>• Audit of Project financial statements</li> <li>• Summarizing audit works</li> <li>• Preparation of auditor's report and management letter</li> </ul>

## ANNEXURE 2

### UNITED WATER SUPPLY COMPANY OF GEORGIA (UWSCG) ADB FINANCED URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM

#### TERMS OF REFERENCE FOR CONSTRUCTION SUPERVISION CONSULTANT

##### A. Introduction

1. Georgia (hereinafter referred to as "the Borrower") has received a loan from the Asian Development Bank (hereinafter referred to as "the Bank" or "ADB") for Urban Services Improvement Investment Program to be implemented by the United Water Supply Company of Georgia (UWSCG). UWSCG was established following an order No. 11/13 of the Ministry of Economic Development of Georgia under Georgian Commercial Law on 14 January 2010, by merging the two regional water companies West Water LLC and East Water LLC. With the merger, the UWSCG took over the assets of its predecessors. UWSCG is 100% state-owned, where the share is held by the Ministry of Infrastructure and Regional Development of Georgia. Amongst the water-related competencies of the Ministry are: coordination and support for the development of water systems in Georgia; coordination of regional programs funded by national and international sources and oversight of their implementation; support and coordination of international/trans-boundary cooperation of Georgian regions and local self-governance units.

2. It is intended that part of the proceeds of the ADB loan mentioned above will be applied towards the cost of consulting services for construction/rehabilitation supervision of the following contracts:

- (i) Zugdidi sewerage network, including sewage pumping stations;
- (ii) Zugdidi Sewage Treatment Plant (STP); and
- (iii) Mestia STP.

##### B. Background

3. The Georgia Urban Services Improvement Investment Program (Investment Program) will improve the health of residents in the secondary towns of Zugdidi and Poti. The outcome of the Investment Program is improved water supply and sewerage system services in these secondary towns. The outputs comprise:

- **Component 1: Infrastructure Improvement.** The first component will include infrastructure investments to rehabilitate, improve and expand water supply and sanitation facilities in 2 secondary towns.
- **Component 3: Investment Project Implementation.** The third component will provide project implementation support comprising construction supervision, safeguards compliance.

4. The Construction Supervision Consultant (the Consultant) will supervise construction of wastewater facilities under Component 1 in the towns of Zugdidi and Mestia. The construction works shall include: Sewage Networks, Sewage Pumping Stations, and Sewage Treatment Plants. The works to be supervised will include house connections. It is envisaged that separate contractors will be appointed to undertake the construction works for sewage networks and another one for treatment.

5. The Consultant will be responsible for:

- (i) Supervision of all construction works;
- (ii) Design review of water treatment plant, reservoirs and wastewater treatment plant being implemented under Design Build Operate contracts;
- (iii) Providing on-the-job training to counterpart UWSCG engineers seconded to the consultants team; and
- (iv) Providing assistance for commissioning and handing over of works to UWSCG.

### C. Objectives

6. The objective of the Project is to improve sewerage systems in Georgia. This consulting service for construction supervision is required to assist UWSCG to supervise and control construction of all above listed civil works (with mechanical and electrical components) in the two towns of Georgia mentioned in Clause 4 above.

### D. Project Description

**Table 1: Brief Description of the Project**

<b>Package Name</b>	<b>Description of Works*</b>	<b>Tentative Commencement Date</b>	<b>Tentative Completion Time</b>
<b>Zugdidi</b>			
Sewerage Network	Construction of approximately 178 km sewer lines; 23 sewage pumping stations.	October, 2015	36
<b>Mestia</b>			
Sewage Treatment Plant	Design-Build-Operate of sewage treatment plant with approximate capacity of 1 478 cum/day in Mestia	January, 2016	24

\*The quantities of the various works mentioned under this column are is approximate.

### E. Scope of Work

7. The Program will improve water systems in the above mentioned towns. The contracts to be supervised are given in the table above.

8. The Consultant is expected to assist UWSCG supervise the civil work contract packages as planned.

9. A Consultant Team will be engaged to perform as the Engineer for all the above contracts, which will be under FIDIC MDB Harmonized Edition Conditions of Contract and for Treatment Plants - Model Form of International Contract for Process Plant Construction published by the Engineering Advancement Association of Japan (ENAA). The Consultant will administer the construction contracts and ensure that the works are constructed in accordance with the provisions of the construction contracts, as stated in the Conditions of Contract, Drawings, Specifications, Bills of Quantities and Schedule of Prices.

10. The Consultant's representatives will be full-time professional engineers in the Project area under each contract and will make all necessary arrangements for quality control and implementation of the works.

11. The Consultant will carry out a critical review the detailed design prior to the commencement of works to identify defects or omissions that compromise on consistency of the design and completeness of works. This review will be carried out immediately after the services commence and will be completed within 4 weeks. On completion of the review, the Supervision Consultant will prepare a report, setting out all findings and recommendations for correcting any defects or omissions identified. Notwithstanding these, the Supervision Consultant will immediately inform the Employer of any defect or omission that may have a substantial impact on the Program at the time the defect or omission is uncovered. The Consultant will submit four copies of the review report to the employer.

12. The task of the Consultant will include but not be limited to:

- (i) ensure that the construction methods as proposed by the contractor for carrying out the works are satisfactory in accordance with international best practice; checking of contractor's setting out of the works;
- (ii) inspection of contractor's construction equipment and materials;
- (iii) monitor safety of the works, property, personnel, and general public; monitoring the schedule of mitigation measures for adverse environmental impacts;
- (iv) establish efficient procedures for verifying contractor performance and reporting progress and problems in a timely manner, including quality control reports, quantity survey records; request for variation or change orders, contractor's claims and invoices;
- (v) agree on measurements for works completed and in progress with the contractor; check contractor's interim and final valuations and prepare payment certificates;
- (vi) develop and implement procedures for timely payments to the contractors by the employer and monitor for compliance;
- (vii) regularly monitor physical and financial progress against the milestones as per the contract so as to ensure completion of contract on time; maintain a daily diary of site activities including plant and labor records; hold weekly progress meetings with the contractors to discuss progress and problems on the contracts and take minutes of meetings;
- (viii) attend third party inspections as necessary and provide certification on the quality of the supplies based on such inspections (Note: time inputs associated with this requirement are deemed to be included in Table 1, but associated expenses will be reimbursed at cost);
- (ix) assess contractors' claims for time extension, variations, additional compensation etc. and recommend appropriate decisions;
- (x) check contractors' design and drawings for Design Build Operate contracts;
- (xi) undertake project performance monitoring and evaluation in accordance with the Program Framework and ADB's *Project Performance Management System (PPMS) Handbook* including the baseline data survey and the following annual survey and reporting up to project completion;
- (xii) ensure that the Contractors do not involve child labor for the execution of the civil works contracts in accordance with the provisions of the contract agreement;
- (xiii) prepare and issue a monthly progress report for each contract detailed quarterly reports giving physical and financial progress against approved contract programs and a detailed project completion report;
- (xiv) undertake all site testing of the Works and commissioning tests prior to issuance of a taking over certificate;
- (xv) review contractors' submitted operation manuals; monitor preparation of and approve the "as built" drawings before submission to the employer;

- (xvi) review the contractors' environmental management plans (EMP), supervise and monitor the implementation of environmental mitigation measures required, in the event of occurrence of any unexpected environmental impacts, coordinate with the UWSCG, to provide necessary mitigation measures; and prepare quarterly reports on compliance with the EMPs for the employer and ADB;
- (xvii) monitor performance of the contractor during the defects liability period (DLP) and O&M period, if applicable;
- (xviii) prepare and submit draft Project Completion Report two months before end of DLP;
- (xix) prepare and submit final Project Completion Report on completion of DLP or alternative date as agreed with the employer;
- (xx) provide on the job training for any counterpart staff seconded to the project by the UWSCG for strengthening their capacity in supervision of construction and managing and monitoring social and environmental safeguards; and
- (xxi) prepare, monitor and submit the land acquisition and resettlement plan and safeguard documents during construction phase if necessary.

13. With reference to quality control, the Consultant shall submit reports or other relevant documents which include:

- (i) completed plan-schedules (Forms will be provided by UWSCG);
- (ii) measurement sheets supporting interim valuations;
- (iii) completed and signed Forms (Form N2);
- (iv) materials quality certificates;
- (v) certificates for pipe testing; and
- (vi) laboratory certificates for external concrete testing.

14. If so required by the employer, the supervision consultant will provide any of the following as additional services: (i) prepare reports, including technical appraisals, additional contract documentation, and/or review and comment on the contractor's proposals, as may be required for the successful completion of the contracts; and (ii) provide any other specialist services as may be required from time to time.

15. The employer will authorize all additional services, other than minor extras that do not materially affect the scope of the supervision work, at the rates established in the construction supervision contract, or at rates mutually agreed upon when the services require the use of specialists not listed in the contract.

## **F. Implementation Arrangements**

16. The construction supervision consultant will assist the UWSCG in construction supervision but will be the engineer to the contracts. The consultant's team will be headed by a Team Leader/Chief Resident Engineer, and composed of international and domestic experts. The consultant will provide independent teams for each civil works contract headed by an international resident engineer. Each team will report to the Team Leader/Chief Resident Engineer.

## **G. Staffing Requirement**

17. The Consultant shall provide services over a 39 months period. The staff requirement is detailed in **Table 2**.

**Table 2: Staff Requirement for Construction Supervision Consultants**

	<b>Professional</b>	<b>Location</b>	<b>Nos</b>	<b>Men-months (During Construction)</b>	<b>Men- months (During DNP)</b>	<b>Total</b>
<b>I</b>	<b>International Staff</b>					
1	Team Leader / Chief Resident Engineer <sup>1</sup>	Central office	1	33	3	36
2	Resident Engineer Zugdidi WW Network	Zugdidi	1	33	3	36
3	Resident Engineer – Zugdidi and Mestia STP	Zugdidi & Mestia	1	22	3	25
4	Mechanical Engineer	Central office and sites as required	1	6	1	7
5	Electrical/ICA Engineer	Central office and sites as required	1	6	1	7
6	Contracts Engineer/QS	Central office and sites as required	1	6	1	7
7	Treatment Process Engineer	Central Office and Zugdidi & Mestia WWTP	1	6	1	7
8	Structural Engineer	Central Office and sites as requires	1	3	1	4
9	Geotechnical Engineer	Central Office and sites as required	1	3	1	4
	<b>Subtotal -- International Staff</b>			<b>118</b>	<b>15</b>	<b>133</b>
<b>II</b>	<b>National Staff</b>					
1	Mechanical Engineer	Central office and sites as required	1	3		3
2	Electrical/ICA Engineer	Central office and sites as required	1	3		3
3	Assistant Resident Engineer – Zugdidi WW Networks	Zugdidi	1	36	1	37
4	Assistant Resident Engineer/Civil Works Inspector – Zugdidi STP	Zugdidi	1	24	1	25
5	Assistant Resident Engineer/Civil Works Inspector – Mestia STP	Mestia	1	18	1	19
6	Civil Works Inspector – Zugdidi WW Network	Zugdidi	1	36		36
7	Social Safeguards and Community Consultation Specialist	Central office and sites as required	1	8		8
8	Environmental Specialist	Central office and sites as required	1	36	1	37
	<b>Subtotal -- National Professional Staff</b>			<b>164</b>	<b>4</b>	<b>168</b>
	<b>Total</b>			<b>282</b>	<b>19</b>	<b>301</b>

	Professional	Location	Nos	Months	Total
III	Support Staff				
	Document Controller / Secretary / Translator (1)	Central office	1	36	36
	Accountant	Central office	1	39	39
	Driver for Team Leader	Central office	1	36	36
	<b>Total – Support Staff</b>				<b>111</b>

## H. Project Staff

18. **Team Leader/Chief Resident Engineer (International)** - The Team Leader will be responsible for overall supervision of all construction activities as described in the Duties of the Consultant preferably with Degree in Civil Engineering, or similar qualification, and corporate membership of a relevant professional institution. He/she will have preferably 20 years of experience in planning and implementation of large-scale water supply and sanitation projects, preferably construction of water transmission mains and distribution networks, sewerage networks and wastewater treatment plants. Preferably 5 years of this experience will have been as Team Leader and a minimum of 10 years of experience will have been in developing countries, some preferably in central and west Asia. Skills in human resource management, previous experience on ADB projects and familiarity with ADB Guidelines would be advantageous. A post graduate qualification in construction or project management would be advantageous but is not as essential as proven experience of similar projects. The Team leader will be based in the Consultant's central project office in Georgia (Tbilisi) and will report regularly to the UWSCG project management unit.

19. **Resident Engineers (International)** - Two Resident Engineers will each be responsible for supervision of construction activities in one of the towns of Zugdidi and Mestia. Each Resident Engineer should preferably have a Degree in Civil Engineering, or similar qualification, and preferably 15 years of experience in the implementation of large-scale sanitation projects, preferably construction of water transmission sewerage networks and wastewater treatment plants. He/she should preferably have 7 years of experience in developing countries, preferably in central and west Asia. Skills in human resource management, previous experience on ADB projects and familiarity with ADB Guidelines, and a working knowledge of FIDIC and ENAA contracts, particularly the MDB harmonized edition, would be advantageous. A post graduate qualification in construction or project management would be an advantage but is not essential.

20. **Mechanical Engineer (International)** - The Mechanical Engineer (International) will assist the Resident Engineers in supervising the construction activities in the towns of Zugdidi and Mestia. He/she should preferably have a Degree in Mechanical Engineering, or similar qualification, and preferably 12 years of experience in the implementation of large-scale water supply and sanitation projects, preferably including water and wastewater pumping stations and treatment plants. He/she should preferably have preferably 5 years of experience in developing countries, preferably in central and west Asia. Previous experience on ADB projects and familiarity with ADB Guidelines would be advantageous.

21. **Electrical/ICA Engineer (International)** - The Electrical Engineer will assist the Resident Engineers in supervising the construction activities in the towns of Zugdidi and Mestia. He/she should preferably have a Degree in Electrical Engineering, or similar qualification, and preferably 12 years of experience in the implementation of large-scale water supply and sanitation projects, preferably wastewater pumping stations and treatment plants, and associated SCADA. He/she will be familiar with the latest European standards for electrical

safety and preferably have 5 years of experience in developing countries, preferably in central and west Asia. Previous experience on an ADB projects and familiarity with ADB Guidelines would be advantageous.

**22. Contracts Engineer/QS (International)** - The Contracts Engineer will assist the Team Leader/Chief Resident Engineer in the contract management of all construction activities, review claims related to price adjustments for civil works.. He/she should have a Degree in Engineering or Quantity Surveying, or similar qualification, and preferably 10 years of experience in the implementation of large-scale construction projects, preferably including water and sanitation projects. He/she preferably have 5 years of experience in developing countries, preferably in central and west Asia. Previous experience on ADB projects and familiarity with ADB Guidelines would be advantageous. He/she should have experience in the use of FIDIC and ENAA contracts; particularly the MDB harmonized edition, and in assessing and evaluating Contractor's claims.

**23. Structural Engineer (International)** - Structural Engineer will assist Team Leader and Resident Engineers for support in reviewing Contractor's detailed design, including structural calculations, models and drawings, specifications and civil works during pre-construction stage for Zugdidi and Mestia contracts. He/she will make review contractor's final designs will analyze design compliance in terms of ERQ, drawings, BoQ, Schedules of prices. He/she will make comparative analysis of BoQ items for concrete and reinforcement works, costs analysis against contract lump-sum and review and comments on the construction method statement from Contractor. He/she will assist Resident Engineer for support in reviewing shop drawings for the above works. He/she should have a Degree in Structural Engineering or similar qualification, and preferably 7 years of experience in the implementation of large-scale construction projects, preferably including water and sanitation projects. He/she should have some experience in developing countries, preferably in central and west Asia. Previous experience on an ADB projects and familiarity with ADB Guidelines would be advantageous.

**24. International Geotechnical Engineer (International)** - The expert shall have minimum bachelor's degree in Geology with a minimum of 10 years relevant experience. The Engineer will review geotechnical reports to be submitted by Contractors for all structures (reservoirs, manholes, valve chambers, trust blocks etc.); responsible for reviewing any kind of structure so that it can fulfill a specific purpose, and remain safe, economic and functioning throughout its intended lifetime. Geotechnical includes investigating on both the immediate loads and demands on the structure based on soil conditions, as well as any likely future changes, and ensuring a structure is designed to withstand those loads, Ground and soil investigations, Oversee foundations, slope and embankment construction, Laboratory and in-situ testing, Responsible for overall management of geotechnical engineering services, including P & L responsibility, Verify geotechnical reports and test results, instruct contractors on engineering analysis and report validation; approves contractor's field exploration and laboratory tests, Verification of geotechnical calculations using governing codes (Eurocodes or Georgian codes) and standards as instructed by the Employer, Verification of engineering plans (foundations), design and reinforcement details of reservoirs etc., Provide comments on geotechnical, structural and civil drawings for approval by the Engineer, Review shop drawings as required during construction.

**25. Treatment Process Engineer (International)** - The Wastewater Treatment Process Engineer should have a Bachelor's degree in a relevant engineering discipline (Civil, Mechanical, Chemical) from a recognized university with a minimum of 10 years of experience in the process and hydraulic design of wastewater treatment plant, with particular knowledge of



the activated sludge process and sludge treatment/disposal in the climatic conditions that prevail in Zugdidi and Mestia. He/she must have previous demonstrable experience of reviewing design and build documents. Work will include checking and approving the final detailed design and drawings of the Zugdidi and Mestia wastewater treatment plants prepared by the successful Contractors, to ensure compliance with the performance requirements. The Wastewater Treatment Engineer should also be able to assist, if required, with the commissioning of the wastewater treatment plants in Zugdidi and Mestia, to ensure that the specified performance is achieved on a sustainable basis.

**26. Mechanical Engineer (National)** - The Mechanical Engineer will assist the International Mechanical Engineer in supervising the construction activities in the towns of Zugdidi and Mestia. He/she should have a Degree in Mechanical Engineering, or similar qualification, and preferably 8 years of experience in the implementation of large-scale water supply and sanitation projects, including pumping stations and treatment plants. Fluency in the English language and experience with international organizations shall be an advantage.

**27. Electrical/ICA Engineer (National)** - The Electrical/ICA Engineer will assist the International Electrical Engineer in supervising the construction activities in the towns of Zugdidi and Mestia. He/she should have a Degree in Electrical Engineering, or similar qualification, and preferably 8 years of experience in the implementation of large-scale water supply and sanitation projects, preferably including water and wastewater pumping stations and treatment plants, and associated SCADA. He/she will be familiar with the latest European standards for electrical safety and any Georgian regulations covering electrical installations and safety. Fluency in the English language and experience with international organizations shall be an advantage.

**28. Assistant Resident Engineers (National)** - The Assistant Resident Engineers will assist the International Resident Engineers in supervising construction activities in each of the towns of Zugdidi and Mestia. They should preferably have a Degree in Civil Engineering, or similar qualification, and preferably 8 years of experience in the implementation of large-scale sanitation projects, preferably construction of sewerage networks and wastewater treatment plants. Fluency in the English language and experience with international organizations shall be an advantage.

**29. Social Safeguards and Community Consultation Specialist (National)** - The Social Safeguards and Community Consultation Specialist will be responsible for status of any unanticipated involuntary settlement impacts, and monitoring of any complaints thereof. He will also be responsible for informing stakeholders of the activities of the contractors in respective towns. He/she should preferably have a Degree in a relevant discipline and some experience in the implementation of large-scale construction projects, preferably construction of distribution networks, sewerage networks and wastewater treatment plants. Experience with international organizations shall be an advantage.

**30. Environmental Specialist (National)** - The Environmental Specialist will be responsible for monitoring compliance with the contractors' environmental management plans in all towns. He/she should preferably have a Degree in a relevant discipline and experience with monitoring compliance with ADB safeguard policies in the implementation of large-scale construction projects, preferably including water and sanitation projects. Fluency in the English language and experience with international organizations shall be an advantage.

**I. Reports**

31. The Consultant will submit the following reports:

**Table 3: Required Reports**

<b>Types of Reports</b>	<b>UWSCG</b>	<b>ADB</b>
Inception Report (month 1) English and Georgian versions	<b>3</b>	<b>1</b>
Progress Reports (monthly) English and Georgian versions	<b>3</b>	<b>1</b>
Progress Reports (quarterly) English and Georgian versions	<b>3</b>	<b>1</b>
Draft Contract Completion Report. English and Georgian versions	<b>3</b>	<b>1</b>
Final Contract Completion Report. English and Georgian versions	<b>3</b>	<b>1</b>

**J. Facilities**

32. Contractors will provide vehicles, including operation & maintenance, for Consultants' International and National Staff during construction activities. Also, Contractors will provide office space, including, furniture, printers, utilities costs, in Zugdidi and Mestia for Resident Engineers and Consultant Staff. Staff Accommodation costs will be borne by the Consultants.

**K. Duration of the Assignment**

33. It is currently envisaged that the assignment will commence on October 2016 and be completed in December 2019 following the expiry of the Defects Liability Period for sewage treatment plants.

**L. Duration of the Assignment**

34. Estimated budget for the assignment including VAT is \$4.32 million, which includes remuneration for international and national staff, support staff, out-of pocket expenses, such as, international air travel and per-diem for international staff, contingencies.

### UPDATED CONTRIBUTION TO THE ADB RESULTS FRAMEWORK

No.	Level 2 Results Framework Indicators (Outputs and Outcomes)	Targets	Methods / Comments
1.	Households with new and/or improved sanitation (number)	20,600	Detailed engineering designs for Zugdidi sewerage system
2.	Wastewater treatment capacity added or improved (cubic meters per day)	12,600	STP capacities based on preliminary designs: - 11,122 cum/day for Zugdidi - 1,478 cum/day for Mestia

cum = cubic meter; STP = sewage treatment plant.  
Source: United Water Supply Company of Georgia.

## ECONOMIC AND FINANCIAL ASSESSMENTS FOR PROJECT 5

### I. MESTIA ECONOMIC ANALYSIS

#### A. Introduction and Methodology

1. The economic analysis was undertaken according to ADB Guidelines on the Economic Analysis of Projects<sup>1</sup>. The Investment Program economic rationale was based on: fostering economic growth and improving urban water supply and sanitation (WSS) services, and improving institutional effectiveness. The analysis describes the economic rationale and undertakes a viability analysis of the subproject. A sensitivity analysis was conducted to determine the effects of several adverse economic conditions on the overall subproject viability. The subproject analysis compares the economic internal rate of return (EIRR) with the economic opportunity cost of capital (EOCC), assumed at 12%, as applied in infrastructure project studies in Georgia. Sensitivity and risk analyses are undertaken to assess the robustness of the subprojects under adverse economic conditions. The analysis uses shadow pricing and shadow exchange rate factor to convert the financial cost and benefits into economic terms and is only applicable to foreign cost components.

2. During the preparation of the economic analysis, the question of what is considered as a subproject under the investment program was considered. Official ADB Operations Manual requirement states that all sub-projects discrete and identifiable should be analyzed separately. However, in the case of water and sanitation projects, distinguishing between individual sub-projects, such as water and sewer lines, treatment plants and reservoirs do not reflect the true economic benefits of water supply and sanitation networks unless they are analyzed as a whole. Therefore, the definition of a sub-project has been determined at the town level under the investment program, under which seven towns are serviced with water supply and sewage collection and treatment systems. To satisfy the requirement, an economic analysis has been conducted at the sub-project level (i.e. only sewage treatment plants) and the result is presented under Section F.

#### B. Economic Rationale

3. **Improving urban water supply and sanitation services.** Urban water supply and sanitation services in Mestia town have deteriorated since the collapse of the Soviet Union. The lack of capital investments for infrastructure improvement and rehabilitation has affected the quality of the services. 70% of urban households in United Water Supply Company of Georgia (UWSCG) service area do not have 24-hour water supply and this negatively affects the living conditions for people in the service area. In Mestia, sewerage network of 54 km length were constructed and new customers were connected under ADB financed project, Urban Services Improvement Investment Program (Project 2).

4. **Improving institutional effectiveness.** To improve the quality of service, the investment program will improve UWSCG's capacity to deliver services. Through the enterprise resource management component, the investment program will provide a management contractor's services to help UWSCG with long-term capital planning and asset strengthening, procurement, supervision of capital improvement works, operation and maintenance (O&M), and financial management.

<sup>1</sup> ADB. 1997. Guidelines for the Economic Analysis of Projects. Manila; ADB. 1999. Handbook for the Economic Analysis of Water Supply Projects. Manila.

5. **Demand analysis.** Water demand estimates for future years are determined by multiplying the current unit of demand by the projected number of future users in the water system. It is assumed new users added to the system will consume water at the same rate as current users. Population growth for the period of 2010-2020 is assumed to be at 35.5%. The 2010-2020 period assumption is based on census data, historical data provided by UWSCG as well as government forecasts for economic growth in Mestia. For the sewage network, the users are equal to number of users for water assuming that each water connection will also have a sewerage connection. In terms of volume of water treated, this is based on consumption of water and takes into account of non-revenue water (NRW) that is treated but not billed. For the demand analysis of wastewater, the quantity of wastewater is assumed to equal to the total water consumed, considering allowance of about 20% for infiltration of water into sewerage system due to high ground water level in the region. The overall project is considered beneficial to the poor communities which accounts for 50% of the population in Mestia.

### C. Economic Benefits

6. In the case of Mestia, a joint economic analysis was done for the water system financed under Tranche 1 and 2, waste water system financed under Tranche 2 and sewage treatment plant (STP) financed under Tranche 5. In brief, the subprojects entail (i) water supply transmission main, (ii) rehabilitation and construction of reservoirs, (iii) Construction of a new water treatment plant (WTP), (iv) Construction of water headworks, (v) Construction of sewerage system, and (vi) Construction of STP.

7. Economic benefits of the subproject include two main factors: (i) incremental benefits attributable to better water supply under with-project scenario, and (ii) non-incremental benefits attributable to the improved water supply under with-project scenario. Estimates for incremental benefits accounts for the improvements in the system and the reduction of technical losses as a result of reduction of leakage. Benefits derived from non-incremental water include estimated savings such as time spent for water collection, construction of individual wells/boreholes, pumping cost, water storage tank investments and household O&M costs. The average of the water tariff (with project) and the demand price based on resource cost savings (without project) is used to determine the unit price for incremental benefit. Other benefits are derived from the reduction in non-technical water losses (i.e. consumers who are currently not paying for services rendered), which increases the amount of water sold.

8. Sanitation benefits<sup>2</sup> are based on (i) savings from transitions from septic tank to sewerage network, (ii) avoidance of overflow, and (iii) benefits derived from the STP. The unit savings for switching from septic tank to the sewerage network is estimated to be \$105.00 per household per year, taking into account the maintenance cost of septic tanks and cost of emptying the tank. This is multiplied by the number of households connected to the sewerage network. The overflow<sup>3</sup> unit cost is estimated at \$6.00 per household per year, multiplied by the number of households connected to the sewerage network. The unit benefit assigned to STP is

<sup>2</sup> The estimates for the unit benefit for switching from septic tank are based on historical costs for septage cleanup, whereas the unit benefit for the STP is based on estimates provided by UWSCG accounting for the aggregation of employment created through the construction and operation of the STP as well as the improvement of overall environment as a result of wastewater being treated.

<sup>3</sup> The benefit due to the avoidance of septic tanks overflows set for Mestia at \$6 per HH and year following the practice applied during the complete project for all towns. The amount reflects the avoided costs for cleaning the houses and clothes after an overflow taking into account necessary cleaning time, material costs and the expected number of occurrences per year. The \$6 is derived from the following assumptions: (i) \$30 total cleaning cost, and (ii) septic tanks overflow every 5 years.

\$180 per household per year (\$50 per person multiplied by an average household size of 3.6), based on the avoidance of environmental clean-up and remedial expenditures at the Mestia town level, direct and indirect income and employment generation as well as increase in property values as a result of expenditures on the STP.

## **D. Economic Cost**

9. For the Mestia subproject, the component cost for water supply and sanitation services was based on the following decisions: improvement of the production capacities, rehabilitation of reservoirs increasing the actual flow into the city of Mestia. For the wastewater disposal service the focus was set on the rehabilitation and extension of the sewerage network and construction of a new STP. Economic cost included: (i) capital investment cost for the distribution, transmission and treatment of water and wastewater, (ii) environmental mitigation and monitoring; (iii) capacity development; and (iv) operation and maintenance costs, including replacement cost of depreciated equipment. Economic costs are valued in local currency using the domestic prices and expressed in economic terms using the domestic price numeraire at constant 2015 prices. Financial costs of traded goods were adjusted to their respective economic values using a shadow exchange rate factor<sup>4</sup> of 1.05, and the shadow wage rate for unskilled labor estimated at 0.7. The rates are calculated using 2013 data for imports, exports and exchange rates and reflect the actual circumstances in country. Transfer payments, including taxes, duties and interests as well as price inflations are excluded from the economic costs.

## **E. Cost-Benefit Analysis**

10. The economic cost-benefit ratio was used in the analysis to assess whether the subproject benefits outweigh costs. The benefit–cost ratio for the Mestia subproject is 1.41, thus making the subproject economically viable.

## **F. Results of Economic Analysis**

11. EIRR and discounted net cash flows were determined by comparing benefit streams with cost streams. Water supply benefits are assumed to begin in 2015 as this portion is implemented under Tranche 1. Sanitation benefits are also assumed to begin in 2015 as there is existing old and new sewerage infrastructure<sup>5</sup> that is being commissioned as part of this project, and simultaneously being upgraded to cover entire population of Mestia. As can be seen in the following table the Mestia subproject becomes economically viable even in the assumed worst case scenario of revenue decreasing by 10%. For the base case scenario the economic net present value (ENPV) amounts to \$2.36 million with an EIRR of 14.20%. For a stand-alone wastewater at the sub-project level, the EIRR would be at 12.09%.

12. The results of the sensitivity analysis are shown in Table 1 and Table 2. The switching value shown in this table is the increase/decrease in the parameter being tested which returns an EIRR equal to the opportunity cost of capital (12%).

<sup>4</sup>  $SERF = 1 / SCF$  (Standard Conversion Factor)  $| SCF = (M + X) / ((M(1+tm-sm) + X(1-tx+sx)))$  M: Import; X: Export; t: tax; s: subsidy. The Government of Georgia implemented reforms in tariff policy as well as in technical regulations sphere. As a result, nowadays Georgia has one of the most liberal foreign trade policies in the world, which implies the facilitated foreign trade regimes and customs procedures, low import tariffs and minimal non-tariff regulations, thus the SERF is very close to 1.

<sup>5</sup> Apart from existing old sewerage system (which will be rehabilitated under the project), a new sewerage system including a small sewage treatment plant was constructed as a part of housing project for internally displaced people under EIB financing.

**Table 1. Economic Analysis – Summary Results**

<b>Description</b>	<b>EIRR</b>	<b>ENPV (\$ million)</b>	<b>Switching Value</b>
Base Case	14.20%	2.36	
Capital Cost increase by 15%	12.86%	0.99	17.23%
O&M Cost increase by 10%	13.57%	1.70	35.90%
Revenue decrease by 10%	12.09%	0.10	-10.43%
1-year delay in benefit	13.12%	1.20	
Capital and O&M Cost increase by 10%	12.29%	0.33	11.64%

EIRR = economic internal rate of return, ENPV = economic net present value.

Source: United Water Supply Company of Georgia estimates.

## **G. Conclusion**

13. The subproject is economically viable with EIRR values exceeding the EOCC (12%) for the base case scenario, and various other pessimistic scenarios.

**Table 2. Cost-Benefit Analysis**

Ave. Time for Collection hrs/mo	Wage Rate \$/hr	Collectn Cost \$/yr	Actual Benefit \$/yr	Sub-t A1 Collectn \$/yr	Storage unit cost \$	Unit financing \$/yr	Treatment & O&M \$/yr	Sub-t A2 Storage \$/yr	ells/Borehole Cost \$/yr	Bottled Cost \$/yr	Pumps Cost \$/yr	Savings \$/yr	Current HH Consump m3	Non-Incr Benefit \$/m3	Incr+NTL Benefit \$/m3
11.8	0.75	106.25	31.87	22.31	95.00	\$15.46	19.00	\$34.46	193.52	-	57.51	307.81	154.40	1.99	3.34
Year	NRW Non-tech m3 mill 1	Non-incr m3 mill 2	Water Sold Incr m3 mill 3	Total m3 mill 4 = 2 + 3	Total Consump m3 mill 5 = 1 + 4	NRW - Non-technical Rate \$/m3 6	Value \$ mill 7 = 1 x 6	Non-incremental Rate \$/m3 8	Value \$ mill 9 = 2 x 8	Incremental Rate \$/m3 10	Value \$ mill 11 = 3 x 10	Health Benefits \$ mill	Economic Benefit \$ mill	Economic Cost \$ mill	Net Benefit \$ mill
2015	0.09	0.29	0.12	0.41	0.50	3.34	0.31	1.99	0.57	3.34	0.40	-	1.54	7.24	(5.70)
2016	0.10	0.30	0.13	0.43	0.52	3.34	0.32	1.99	0.60	3.34	0.42	-	1.61	8.93	(7.32)
2017	(0.22)	0.31	0.13	0.44	0.22	3.34	(0.74)	1.99	0.62	3.34	0.44	-	1.06	0.80	0.26
2018	0.23	0.36	0.11	0.46	0.69	3.34	0.78	1.99	0.71	3.34	0.35	-	2.61	0.81	1.80
2019	0.26	0.37	0.11	0.48	0.73	3.34	0.86	1.99	0.73	3.34	0.37	-	2.75	0.82	1.94
2020	0.18	0.38	0.12	0.50	0.68	3.34	0.61	1.99	0.76	3.34	0.39	-	2.58	0.82	1.75
2021	0.20	0.40	0.12	0.53	0.72	3.34	0.65	1.99	0.80	3.34	0.42	-	2.75	0.83	1.92
2022	0.21	0.42	0.13	0.56	0.77	3.34	0.70	1.99	0.85	3.34	0.45	-	2.92	0.84	2.08
2023	0.22	0.45	0.14	0.59	0.81	3.34	0.74	1.99	0.89	3.34	0.48	-	3.10	0.85	2.25
2024	0.23	0.47	0.15	0.62	0.86	3.34	0.78	1.99	0.94	3.34	0.51	-	3.27	0.86	2.41
2025	0.25	0.49	0.16	0.65	0.90	3.34	0.83	1.99	0.98	3.34	0.54	-	3.44	0.87	2.58
2026	0.26	0.51	0.17	0.69	0.95	3.34	0.87	1.99	1.03	3.34	0.57	-	3.62	0.88	2.74
2027	0.27	0.54	0.18	0.72	0.99	3.34	0.92	1.99	1.07	3.34	0.61	-	3.79	0.89	2.90
2028	0.29	0.56	0.19	0.75	1.04	3.34	0.96	1.99	1.12	3.34	0.64	-	3.96	0.90	3.06
2029	0.30	0.58	0.20	0.78	1.08	3.34	1.01	1.99	1.16	3.34	0.67	-	4.14	0.91	3.23
2030	0.31	0.60	0.21	0.81	1.13	3.34	1.05	1.99	1.21	3.34	0.70	-	4.31	3.18	1.13
2031	0.34	0.64	0.22	0.86	1.20	3.34	1.12	1.99	1.27	3.34	0.75	-	4.57	6.21	(1.64)
2032	0.36	0.67	0.24	0.91	1.26	3.34	1.19	1.99	1.33	3.34	0.79	-	4.83	1.13	3.69
2033	0.38	0.70	0.25	0.95	1.33	3.34	1.26	1.99	1.40	3.34	0.84	-	5.08	1.23	3.85
2034	0.40	0.73	0.26	1.00	1.40	3.34	1.34	1.99	1.46	3.34	0.88	-	5.34	2.64	2.70
2035	0.42	0.77	0.28	1.04	1.46	3.34	1.41	1.99	1.53	3.34	0.93	-	5.60	0.96	4.64
2036	0.44	0.80	0.29	1.09	1.53	3.34	1.48	1.99	1.59	3.34	0.97	-	5.85	0.97	4.89
2037	0.46	0.83	0.30	1.13	1.60	3.34	1.55	1.99	1.66	3.34	1.02	-	6.11	0.98	5.14
2038	0.49	0.86	0.32	1.18	1.67	3.34	1.62	1.99	1.72	3.34	1.06	-	6.37	0.98	5.38
2039	0.51	0.89	0.33	1.23	1.73	3.34	1.69	1.99	1.78	3.34	1.11	-	6.62	0.99	5.63
2040	0.53	0.93	0.34	1.27	1.80	3.34	1.76	1.99	1.85	3.34	1.15	-	6.88	1.00	5.88
NPV @ 12.0%					6.075		4.884		6.817		3.983	-	22.647	20.285	2.362 14.20%
30 years									4.884						
				Borehole	Pumps				3.983				Tariff, \$/m3 =	3.73	
				unit cost \$	533.50	124.00			8.867				AIEC, \$/m3 =	3.34	
				unit financing \$	\$86.82	32.71							Benefit Cost Ratio =	1.12	
				O&M \$/year	106.70	24.80									



## II. ZUGDIDI ECONOMIC ANALYSIS

### A. Introduction and Methodology

14. The economic analysis was undertaken according to ADB Guidelines on the Economic Analysis of Projects<sup>6</sup>. The Investment Program economic rationale was based on: fostering economic growth and improving urban WSS services, and improving institutional effectiveness. The analysis describes the economic rationale and undertakes a viability analysis of the subproject. A sensitivity analysis was conducted to determine the effects of several adverse economic conditions on the overall subproject viability. The subproject analysis compares the EIRR with the EOCC, assumed at 12%, as applied in infrastructure project studies in Georgia. Sensitivity and risk analyses are undertaken to assess the robustness of the subprojects under adverse economic conditions. The analysis uses shadow pricing and shadow exchange rate factor to convert the financial cost and benefits into economic terms and is only applicable to foreign cost components.

15. During the preparation of the economic analysis, the question of what is considered as a sub-project under the investment program was considered. Official ADB Operations Manual requirement states that all sub-projects discrete and identifiable should be analyzed separately. However, in the case of water and sanitation projects, distinguishing between individual sub-projects, such as water and sewer lines, treatment plants and reservoirs do not reflect the true economic benefits of water supply and sanitation networks unless they are analyzed as a whole. Therefore, the definition of a subproject has been determined at the town level under the investment program, under which seven towns are serviced with water supply and sewage collection and treatment systems. To satisfy the requirement, an economic analysis has been conducted at the subproject level and the result is presented under Section F.

### B. Economic Rationale

16. **Improving urban water supply and sanitation services.** Urban water supply and sanitation services in Zugdidi have deteriorated since the collapse of the Soviet Union. The lack of capital investments for infrastructure improvement and rehabilitation has affected the quality of the services. 70% of urban households in United Water Supply Company of Georgia Limited Liability Company (UWSCG) service area do not have 24-hour water supply and this negatively affects the living conditions for people in the service area. In Zugdidi, the current population is not connected to the sewerage network.

17. **Improving institutional effectiveness.** To improve the quality of service, the investment program will improve UWSCG's capacity to deliver services. Through the enterprise resource management component, the investment program will provide a management contractor's services to help UWSCG with long-term capital planning and asset strengthening, procurement, supervision of capital improvement works, O&M, and financial management.

18. **Demand analysis.** Water demand estimates for future years are determined by multiplying the current unit of demand by the projected number of future users in the water system. It is assumed new users added to the system will consume water at the same rate as current users. Population growth for the period of 2014- 2030 is assumed to grow at 0.4% per annum. The assumption is based on census data, historical data provided by UWSCG as well

<sup>6</sup> ADB. 1997. Guidelines for the Economic Analysis of Projects. Manila; ADB. 1999. Handbook for the Economic Analysis of Water Supply Projects.

as government forecasts for economic growth. For the sewage network, the number of users is based on the users for water, assuming that each water connection will also have a sewerage connection. In terms of volume of water treated, this is based on consumption of water and takes into account of non-revenue water that is treated but not billed. NRW is estimated to be at 14.9% in 2018 when the network is completed. For the demand analysis of wastewater, the quantity of wastewater is assumed to equal to total water consumed, considering allowance of about 20% for infiltration of water into sewerage system due to high ground water level in the region. The overall project is considered beneficial to the poor communities which accounts for 30% of the population in Zugdidi.

### **C. Economic Benefits**

19. In the case of Zugdidi, a joint economic analysis is done for both the water system financed under Tranche 4 and the wastewater system to be financed under Tranche 5. In brief, the subproject will (i) improve urban water supply and sanitation infrastructure; and (ii) improve service delivery through better resource management. For the Zugdidi subproject, the component choice was based on the following decisions: (i) improvement of the production capacities, (ii) rehabilitation of reservoirs and pumping station and increasing the actual flow into the city of Zugdidi, (iii) improvement of the sanitation network providing household connections, and (iv) the design, build and operation of a new STP.

20. Economic benefits of the subproject include three main factors: (i) incremental benefits attributable to increased consumption under the with-project scenario, (ii) non-incremental benefits attributable to the water supply services created under with-project scenario, and (iii) sanitation. Benefits derived from non-incremental water include estimated savings such as time spent for water collection, construction of individual wells/boreholes, pumping cost, water storage tank investments and household O&M costs. The average demand price is used to determine the unit incremental benefit and is multiplied by the volume of additional water consumed as a result of project.

21. Sanitation benefits<sup>7</sup> are based on (i) savings from transitions from septic tank to sewerage network, (ii) avoidance of overflow, and (iii) benefits derived from the STP. The unit savings for switching from septic tank to the sewerage network is estimated to be \$105.00 per household per year, taking into account the maintenance cost of septage tanks and cost of emptying the tank. This is multiplied by the number of households connected to the sewerage network. The overflow<sup>8</sup> unit cost is estimated at \$6.00 per household per year, multiplied by the number of households connected to the sewerage network. The unit benefit assigned to STP is \$180 per household per year (\$50 per person multiplied by an average household size of 3.6), based on the avoidance of environmental clean-up and remedial expenditures at the Zugdidi town level, direct and indirect income and employment generation as well as increase in property values as a result of expenditures on the STP.

---

<sup>7</sup> The estimates for the unit benefit for switching from septic tank are based on historical costs for septage cleanup, whereas the unit benefit for the STP is based on estimates provided by UWSCG accounting for the aggregation of employment created through the construction and operation of the STP as well as the improvement of overall environment as a result of wastewater being treated.

<sup>8</sup> The benefit due to the avoidance of septic tanks overflows set for Poti at \$6 per HH and year following the practice applied during the complete project for all towns. The amount reflects the avoided costs for cleaning the houses and clothes after an overflow taking into account necessary cleaning time, material costs and the expected number of occurrences per year. The \$6 is derived from the following assumptions: (i) \$30 total cleaning cost, and (ii) septic tanks overflow every 5 years.

## D. Economic Cost

22. For the Zugdidi subproject, the component cost for water supply was based on the following decisions: development of a well field, construction of transmission mains, pumping stations, reservoirs and the water distribution network. Economic cost included: (i) capital investment cost for distribution, transmission and treatment of water, (ii) environmental mitigation and monitoring; (iii) capacity development; (iv) operation and maintenance costs. For the wastewater disposal service the focus was set on the construction of the sewerage network and of a new STP. For the wastewater disposal service the focus was set on the construction of the sewerage network and of a new STP. Economic cost for wastewater included: (i) capital investment cost for the distribution, transmission and treatment of wastewater, (ii) environmental mitigation and monitoring; (iii) capacity development; and (iv) operation and maintenance costs. Economic costs are valued in local currency using the domestic prices and expressed in economic terms using the domestic price numeraire at constant 2015 prices. Financial costs of traded goods were adjusted to their respective economic values using a shadow exchange rate factor<sup>9</sup> of 1.05, and the shadow wage rate for unskilled labor estimated at 0.7. The rates are calculated using 2013 data for imports, exports and exchange rates and reflect the actual circumstances in country. Transfer payments, including taxes, duties and interests as well as price inflation are excluded from the economic costs.

## E. Cost-Benefit Analysis

23. The economic cost-benefit ratio was used in the analysis to assess whether the subproject benefits outweigh costs. The benefit–cost ratio for the Zugdidi subproject is 1.12, thus making the subproject economically viable.

## F. Results of Economic Analysis

24. The EIRR and discounted net cash flows were determined by comparing benefit streams with cost streams. As can be seen in the following table the Zugdidi subproject becomes economically viable even in the assumed worst case scenario of a 1-year delay in project implementation which would lead to delays in the realization of the benefits. For the base case scenario the ENPV amounts to \$15.34 million with an EIRR of 13.94%. For a stand-alone wastewater sub-project level, the EIRR would be at 12.03%. For a stand-alone water sub-project level, the EIRR would be 16.89%.

25. The results of the sensitivity Analysis are shown in Tables 3 and 4. The switching value shown in this table is the increase/decrease in the parameter being tested which returns an EIRR equal to the opportunity cost of capital (12%).

<sup>9</sup>  $SERF = 1 / SCF$  (Standard Conversion Factor)  $SCF = (M + X) / ((M(1+tm-sm) + X(1-tx+sx)))$  M: Import; X: Export; t: tax; s: subsidy. The Government of Georgia implemented reforms in tariff policy as well as in technical regulations sphere. As a result, nowadays Georgia has one of the most liberal foreign trade policies in the world, which implies the facilitated foreign trade regimes and customs procedures, low import tariffs and minimal non-tariff regulations, thus the SERF is very close to 1.

**Table 3. Economic Analysis – Summary Results**

<b>Description</b>	<b>EIRR</b>	<b>ENPV (\$ million)</b>	<b>Benefit Cost Ratio</b>	<b>Switching Value</b>
Base Case	13.94%	15.34	1.12	
Capital Cost increase by 10%	12.56%	4.77	1.03	14.52%
O&M Cost increase by 10%	13.63%	12.82	1.10	60.75%
Benefits decrease by 10%	12.09%	0.71	1.01	-10.49%
1-year delay in benefit	12.02%	0.15	1.00	
Capital and O&M Cost increase by 10%	12.27%	2.25	1.02	11.72%
Benefit decrease 10%, capital and O&M increase by 10%	10.50%	(12.381)	0.92	

EIRR = economic internal rate of return, ENPV = economic net present value.

Source: United Water Supply Company of Georgia estimates.

## **G. Conclusion**

26. The subproject is economically viable with EIRR values exceeding the EOCC (12%) for the base case scenario and all other pessimistic scenarios, except for the case where benefit decreases along with both capital and O&M costs increase by 10%. However, the probability of all three events occur simultaneously is remote as unit economic benefits, estimates on population as well as cost estimates have all undergone thorough review and verification.

Table 4. Cost-Benefit Analysis

Year	Non-technical m3 mill	Water Sold Non-incr m3 mill	Incr m3 mill	Total m3 mill	Total Consump m3 mill	Non-technical \$ mill	Non-incre mental \$ mill	Incremen Value \$ mill	Total Septic Tank Benefits	Total Overflow Benefits	Total Sewerage Benefits	Total WWTP Benefits	Economic Benefit	Economic Cost	Net Benefit
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	40.324	(40.324)
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	48.820	(48.820)
2017	-	-	-	-	-	-	-	-	-	-	-	3.388	5.478	38.266	(32.788)
2018	0.533	2.848	1.496	4.344	4.877	2.502	8.940	7.016	2.124	0.121	2.245	3.641	24.344	4.036	20.308
2019	0.549	2.858	1.502	4.360	4.909	2.576	8.972	7.043	2.132	0.122	2.254	3.655	24.500	4.043	20.457
2020	0.556	2.868	1.507	4.376	4.932	2.610	9.004	7.070	2.140	0.122	2.262	3.669	24.615	4.049	20.566
2021	0.572	2.879	1.513	4.392	4.965	2.685	9.038	7.098	2.148	0.123	2.271	3.683	24.774	4.056	20.718
2022	0.589	2.889	1.519	4.409	4.997	2.760	9.071	7.125	2.157	0.123	2.280	3.697	24.933	4.063	20.870
2023	0.605	2.900	1.525	4.425	5.030	2.836	9.104	7.153	2.165	0.124	2.289	3.712	25.093	4.071	21.022
2024	0.621	2.911	1.531	4.442	5.062	2.911	9.137	7.180	2.173	0.124	2.298	3.726	25.252	4.078	21.174
2025	0.637	2.921	1.537	4.458	5.095	2.986	9.170	7.208	2.182	0.125	2.306	3.740	25.411	4.085	21.326
2026	0.653	2.932	1.543	4.474	5.127	3.061	9.204	7.235	2.190	0.125	2.315	3.754	25.570	4.092	21.478
2027	0.669	2.942	1.549	4.491	5.160	3.137	9.237	7.263	2.198	0.126	2.324	3.769	25.729	4.100	21.630
2028	0.685	2.953	1.554	4.507	5.192	3.212	9.270	7.291	2.207	0.126	2.333	3.783	25.888	11.818	14.070
2029	0.701	2.964	1.560	4.524	5.225	3.287	9.303	7.318	2.215	0.127	2.342	3.797	26.048	9.355	16.692
2030	0.717	2.974	1.566	4.540	5.257	3.362	9.336	7.346	2.223	0.127	2.351	3.812	26.207	4.530	21.677
2031	0.734	2.985	1.572	4.557	5.291	3.443	9.371	7.374	2.232	0.128	2.360	3.826	26.374	4.881	21.494
2032	0.751	2.996	1.578	4.574	5.326	3.524	9.405	7.403	2.241	0.128	2.369	3.841	26.542	4.657	21.885
2033	0.769	3.007	1.584	4.591	5.360	3.605	9.440	7.431	2.249	0.129	2.378	3.856	26.710	4.144	22.565
2034	0.786	3.018	1.591	4.608	5.394	3.685	9.474	7.460	2.258	0.129	2.387	3.871	26.877	4.152	22.725
2035	0.803	3.029	1.597	4.625	5.428	3.766	9.508	7.488	2.267	0.130	2.396	3.886	27.045	4.159	22.885
2036	0.820	3.040	1.603	4.643	5.463	3.847	9.543	7.517	2.275	0.130	2.405	3.901	27.212	4.552	22.660
2037	0.837	3.051	1.609	4.660	5.497	3.927	9.577	7.546	2.284	0.131	2.414	3.915	27.380	4.753	22.627
2038	0.855	3.062	1.615	4.677	5.531	4.008	9.612	7.574	2.293	0.131	2.424	3.930	27.548	4.182	23.365
2039	0.872	3.073	1.621	4.694	5.565	4.089	9.646	7.603	2.301	0.131	2.433	3.945	27.715	4.190	23.525
2040	0.889	3.084	1.627	4.711	5.600	4.170	9.680	7.631	2.310	0.132	2.442	3.960	27.883	11.341	16.541
NPV @ 12.0%						16.273	50.296	39.529			17.269	22.923	146.289	130.947	15.342 13.94%

### III. MESTIA FINANCIAL ANALYSIS

#### A. Introduction

27. The analysis was conducted on a without-project and with-project basis by estimating incremental costs and revenues over 30 years (between 2011 and 2040) covering the entire WSS system for Mestia. The main financial viability parameters analyzed were: (i) the financial internal rate of return (FIRR), which should be greater than the weighted average cost of capital (WACC) with the financial net present value as proxy; (ii) operating ratio, which should be less than or equal to one when the water supply system becomes fully operational; and (iii) tariff affordability, normally considered affordable if the resulting monthly charge is 5% or less than the average monthly household income. The analysis looked closely at the operating ratio as a main indicator of sustainability.

#### B. Basis for Financial Projections

28. In order to better assess the financial viability of the project, the total investment for Mestia was considered, including financing under Tranche 5 as well as investment cost from previous tranches. In the case of Mestia, total investment cost amount to \$44.925 million.

29. **Revenue.** Revenues were based on domestic and non-domestic demand for wastewater disposal. The related tariffs are programmed to increase between 2015 and 2040 annually. The target is to cover (i) operation and maintenance costs; (ii) operation and maintenance costs plus depreciation; and (iii) operation and maintenance costs plus total debt service plus replacements. Tariff increments are benchmarked on domestic customers' affordability and targeted cost recovery level. The forecast for volume of wastewater is based on the consumption of water in Mestia as well as taking into consideration that existing septic tanks, cesspits and pit latrines in use will be replaced by connections to the extended sewerage network.

30. **Operations & Maintenance (O&M).** It is assumed that the current operation and maintenance costs will increase steadily from 2013 until 2017, when the new systems will start operation. The required staff for water and waste water operation is estimated to be 16 in 2017. The annual average cost of staff is estimated to be \$5,446 including taxes and social security premiums. The energy expenditure is calculated to be \$91.46/ mWh and expenditures for chemicals \$0.93 for 1000 cubic meter of water produced in 2013. The maintenance of civil works is taken as 0.5% of asset value while the repair and maintenance of electrical and mechanical equipment is calculated as 2.5% of the value of assets.

31. **Current Tariffs.** Current water and sewerage tariffs in Mestia are set as follows:

- (i) domestic water supply: GEL0.41/cum;
- (ii) domestic sanitation charge: GEL0.09/cum;
- (iii) non-domestic water supply: GEL3.375/cum
- (iv) non-domestic sanitation: GEL0.932/cum.

#### C. Financial Projection

32. **Tariff.** In the financial projections, where revenues and costs are given in nominal terms, the water supply tariff is programmed to increase annually between 2017 and 2040 to cover O&M cost, asset replacements and total debt service as far as possible. Similar annual tariff increases are applied also on the wastewater disposal tariff. For both services the tariffs for non-

domestic customers were fixed by applying a cross subsidization factor decreasing towards 3 for 2017 and thereafter.

33. **Affordability Analysis.** An affordability analysis was undertaken to compare the level of household water expenditure with the average household income. Table 5 presents the affordability levels for selected years. Average water and wastewater affordability ratio (bill/monthly income) is calculated to be 0.18% in 2011 and increases up to 5.36% in 2018 due to the increased water consumption and the proposed tariff increases. Thereafter the proposed further increases in the tariffs equal to the projected income increases lead to a constant affordability ratio of 5.36% until 2040. Thus, the ratio remains clearly below the internationally accepted threshold limit of 5%, which implies that the proposed domestic tariffs are affordable by the population

**Table 5: Tariff Affordability**

		2011	2017	2018	2019	2020	2030	2039	2040
Daily water consumption per head	lcd	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
Monthly water consumption per head	m <sup>3</sup> / month	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56
Proposed water tariff for households	USD / m <sup>3</sup>	-	-	0.92	0.98	1.04	1.86	3.16	3.35
Proposed sanitation tariff for households	USD / m <sup>3</sup>	0.03	0.30	0.61	0.65	0.69	1.24	2.11	2.24
Average monthly bill water supply (incl. VAT)	USD	-	-	4.96	5.26	5.58	10.03	17.02	18.05
Average bill water supply plus sanitation (incl. VAT)	USD	0.18	1.60	8.26	8.76	9.29	16.72	28.37	30.08
Average monthly HH income per head	USD / head	102.25	145.45	154.25	163.58	173.48	312.14	529.60	561.64
Percent of income spent for water supply	Percent	-	-	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%
Percent spent for water supply and sanitation	Percent	0.18%	1.10%	5.36%	5.36%	5.36%	5.36%	5.36%	5.36%

HH = household, lcd = liters per capita per day, m<sup>3</sup> = cubic meter.

Source: United Water Supply Company of Georgia estimates.

34. From the analysis, tariffs increases required for the subproject is within customer affordability and generate enough revenues to cover O&M cost, asset replacements as well as debt service payments. However, a viability gap funding (VGF) was considered and focused on different targets.

35. Regarding the VGF, four different periods were analysed, covering the years 2011 to 2040, the reference year for the engineers' infrastructure design. However, for these periods, the necessary VGF to achieve certain targets were calculated and is detailed below in Table 6.

36. There are first the VGF amounts listed, which are necessary to ensure the operator's financial viability (liquidity). They sum up to \$87.03 million and cover together with the revenues the O&M cost and additionally the replacement expenditures as well as the total debt service payments. Additional VGF support amounting to \$119.17 million is needed to ensure a sufficiently high FIRR in the base case. However, the purpose of the third part of VGF (\$64.53 million) listed in Table 6 is for risk prevention, because otherwise in the worst case scenario (increase in capital and O&M cost by 10%), the FIRR would be lower than the benchmark WACC. This means that in total \$269.49 million is required through the design life, when the worst case scenario is considered.

**Table 6: Required Viability Gap Funding (in USD)**

Period	Revenues	O&M costs	Replacements	Debt Service	VGF for liquidity	VGF for FIRR>WACC	VGF for risk prevention	VGF total
2011 to 2017	1.239	3.913	0.628	4.194	7.860	0.000	0.000	7.860
2018 to 2024	7.710	8.511	0.728	13.487	15.500	119.167	19.641	154.308
2025 to 2031	16.375	11.843	38.158	13.636	45.140	0.000	19.641	64.781
2032 to 2040	49.256	22.357	21.729	11.762	17.290	0.000	25.252	42.542
2011 to 2040	74.579	46.624	61.243	43.080	87.034	119.167	64.533	269.491

FIRR = financial internal rate of return, O&M = operation and maintenance, TDS = total debt service, VGF = viability gap funding.

37. The above analysis shows that UWSCG will be in a position to meet the operation and maintenance cost from the revenues generated, and can therefore fulfil the requirement of maintaining operating ratio of less than 1 as defined in the loan agreement.<sup>10</sup> The current water and sanitation tariffs are very low, and in the financial analysis it is proposed to reset the initial tariffs at a higher level based on the affordability analysis. However, even if it is assumed that the government start revising tariffs from the current level in FY 2017 and onwards at an average incremental rate of 5% per annum, the revenue generated will be more than the operation and maintenance cost from 2025 year. With the strengthening of the tariff regulatory authority under the Investment Program, it is expected that the tariffs will be revised regularly by taking into consideration UWSCG's operation and maintenance costs, including replacement of assets, and customer affordability, thereby dependence on the government subsidy will be reduced.

38. **Weighted Average Cost of Capital.** The WACC was calculated in real terms and was used as the hurdle rate for the FIRR to measure subproject viability. Funding sources include ADF loan for water supply (previous tranches), OCR loan for this Tranche 5, and government contributions. The rates are computed on after-tax basis, resulting in the WACC in real terms estimated at 3.16% and presented in Table 7.

**Table 7: Weighted Average Cost of Capital**

	Capital Investments		Nominal Rate	Corporate Profit Tax	After Tax Rate	Inflation rate	Real Rate	WACC Real
	MUSD	%						
ADB - Asian Development Fund (ADF)	12.71	33.7%	1.52%	15.0%	1.29%	1.00%	0.29%	0.10%
ADB - Ordinary Capital Resources (OCR)	17.60	46.7%	4.24%	15.0%	3.60%	1.00%	2.58%	1.20%
Government	7.38	19.6%	15.00%	0.0%	15.00%	5.00%	9.52%	1.87%
<b>Total Capital Investment</b>	<b>37.68</b>	<b>100.0%</b>						<b>3.16%</b>

ADB = Asian Development Bank, ADF = Asian Development Fund, OCR = Ordinary Capital Reserves, WACC = weighted average cost of capital.

Source: United Water Supply Company of Georgia estimates.

39. **Sensitivity Analysis.** Table 8 provides the results of sensitivity tests under highly adverse economic conditions. The sensitivity analysis assumes that the proposed water tariff adjustments will be realized, while no VGF will be provided by the Government.

<sup>10</sup> Operating ratio is the ratio of UWSCG's operating expenses over its operating revenue, with "operating expenses" meaning all expenses of UWSCG on operation and maintenance including staff salaries, cost of energy, chemicals and consumables, routine maintenance, spare parts, consumables, etc. but excluding capital expenditure and debt service obligations. The "operating revenue" means the revenue collected by UWSCG from the sale of water and other revenues excluding grants from the government.



**Table 8: Financial Internal Rate of Return**

	<b>FIRR</b> Percent	<b>FNPV</b> MUSD
Base Case	13.27%	41.657
Capital Cost increase by 15%	10.83%	33.719
O&M Cost increase by 10%	13.02%	40.213
Revenues decrease by 10%	13.10%	40.217
1-year delay in revenue	13.05%	40.488
Capital and O&M Cost increase by 10%	11.36%	34.921
Switching value Capital Cost	78.71%	
Switching value O&M Cost	288.57%	
Switching value Revenue	-289.33%	
Switching value Revenue	61.84%	
WACC	3.16%	

FIRR = financial internal rate of return; FNPV = financial net present value;

Switching value = change in parameter that will make the FIRR equal to the WACC.

Source: United Water Supply Company of Georgia estimates.

40. **Conclusion.** The subproject is financially not viable, as the consumer base is very small to recover the large size of investments through only affordable water tariffs. Since there is no other source of non-tariff revenues, the government needs to strictly implement proposed annual tariff increases, and should also make available VGF as presented in the financial analysis. Income affordability is a major factor in rationalizing tariffs, thus the monthly household income needs to be reviewed periodically while fixing tariffs. But the subproject can be justified on the grounds of having adequate economic rate of return. In addition, the tariff revenues are sufficient to meet operation and maintenance cost in the long run ensuring sustainability of the assets.

**Table 9: Financial Internal Rate of Return  
(in million USD)**

Year	Revenue	Viability Gap Funding	Delayed Revenue	Financial Cost			Net Benefits					
				Capital	O&M	Total	Base case	Capital + 15%	O&M + 10%	Revenue -10%	1-yr Delay in Benefit	Cap & O&M + 10%
2009												
2010												
2011	0.055	0.020	-	-	0.087	0.087	(0.011)	(0.011)	(0.020)	(0.017)	(0.067)	(0.020)
2012	0.066	0.162	0.055	6.175	0.128	6.303	(6.075)	(7.001)	(6.088)	(6.082)	(6.086)	(6.706)
2013	0.076	0.190	0.066	11.049	0.166	11.215	(10.948)	(12.605)	(10.965)	(10.956)	(10.959)	(12.070)
2014	0.086	1.425	0.076	15.595	0.661	16.256	(14.745)	(17.084)	(14.811)	(14.753)	(14.755)	(16.370)
2015	0.138	1.448	0.086	6.575	0.705	7.280	(5.694)	(6.680)	(5.764)	(5.707)	(5.745)	(6.422)
2016	0.222	1.316	0.138	8.007	0.793	8.800	(7.261)	(8.462)	(7.340)	(7.283)	(7.345)	(8.141)
2017	0.357	1.769	0.222	-	0.801	0.801	1.325	1.325	1.245	1.289	1.190	1.245
2018	0.556	15.528	0.357	-	0.809	0.809	15.275	15.275	15.194	15.219	15.077	15.194
2019	0.583	15.059	0.556	-	0.817	0.817	14.825	14.825	14.743	14.767	14.798	14.743
2020	0.610	14.317	0.583	-	0.825	0.825	14.102	14.102	14.019	14.041	14.074	14.019
2021	0.656	13.586	0.610	-	0.833	0.833	13.408	13.408	13.325	13.342	13.362	13.325
2022	0.702	12.892	0.656	-	0.842	0.842	12.752	12.752	12.668	12.682	12.706	12.668
2023	0.750	12.228	0.702	-	0.851	0.851	12.127	12.127	12.042	12.052	12.080	12.042
2024	0.798	11.593	0.750	-	0.859	0.859	11.532	11.532	11.446	11.452	11.483	11.446
2025	0.847	2.362	0.798	-	0.868	0.868	2.341	2.341	2.254	2.256	2.292	2.254
2026	0.897	2.187	0.847	-	0.877	0.877	2.208	2.208	2.120	2.118	2.157	2.120
2027	0.949	2.971	0.897	0.954	0.885	1.839	2.081	1.938	1.992	1.986	2.030	1.897
2028	1.001	4.989	0.949	4.095	0.894	4.989	1.001	0.387	0.912	0.901	0.949	0.502
2029	1.053	12.505	1.001	10.788	0.902	11.690	1.869	0.250	1.778	1.763	1.816	0.700
2030	1.107	1.542	1.053	-	0.911	0.911	1.738	1.738	1.647	1.627	1.684	1.647
2031	1.181	1.374	1.107	-	0.920	0.920	1.635	1.635	1.543	1.517	1.561	1.543
2032	1.257	1.269	1.181	0.062	0.929	0.991	1.534	1.525	1.441	1.409	1.459	1.435
2033	1.333	1.157	1.257	0.113	0.939	1.051	1.439	1.423	1.346	1.306	1.363	1.334
2034	1.411	1.617	1.333	0.732	0.948	1.680	1.348	1.238	1.253	1.207	1.270	1.180
2035	1.491	0.870	1.411	-	0.957	0.957	1.404	1.404	1.308	1.255	1.324	1.308
2036	1.572	0.829	1.491	-	0.966	0.966	1.434	1.434	1.338	1.277	1.353	1.338
2037	1.654	0.789	1.572	-	0.975	0.975	1.468	1.468	1.371	1.303	1.386	1.371
2038	1.738	0.752	1.654	-	0.985	0.985	1.505	1.505	1.407	1.332	1.421	1.407
2039	1.824	0.716	1.738	-	0.994	0.994	1.546	1.546	1.446	1.363	1.460	1.446
2040	1.911	4.039	1.824	4.383	1.003	5.386	0.564	(0.094)	0.464	0.373	0.477	0.025
NPV	16.012	105.359	14.781	26.380	15.288	41.668	41.657	33.719	40.213	40.217	40.488	34.921
Applied WACC (real)							FIRR	13.273%	10.832%	13.024%	13.098%	11.359%
	3.165%				Discount Rate @ WACC	FNPV	41.657	33.719	40.213	40.217	40.488	34.921
Time span	30 years				Sensitivity Indicator	FIRR		1.2	0.2	0.1	0.2	1.4
						FNPV		1.3	0.3	0.3	0.4	1.6
					Switching Value	FIRR		78.7%	288.6%	-289.3%		61.8%
						FNPV						

## IV. ZUGDIDI FINANCIAL ANALYSIS

### A. Introduction

41. The analysis was conducted on a without-project and with-project basis by estimating incremental costs and revenues over 30 years (between 2011 and 2040) covering the entire WSS system for Zugdidi town. The main financial viability parameters analyzed were: (i) the FIRR, which should be greater than the weighted average cost of capital (WACC) with the financial net present value as proxy; (ii) operating ratio, which should be less than or equal to one when the water supply system becomes fully operational; and (iii) tariff affordability, normally considered affordable if the resulting monthly charge is 5% or less than the average monthly household income. The analysis looked closely at the operating ratio as a main indicator of sustainability.

### B. Basis for Financial Projections

42. In order to better assess the financial viability of the project, the total investment cost of providing WSS system for Zugdidi town was considered. Total WSS investment cost including VAT and contingencies amounts to \$87.39 million. The water supply system for the Zugdidi town is proposed to be provided under Project 4, and sewerage system is proposed under Project 5, which would be successively processed for approval in Q1 2015.

43. **Revenue.** Revenues were based on domestic and non-domestic demand for water supply service and wastewater disposal. The related water supply tariffs are fixed for 2018, the first year of operating this service in Zugdidi, and programmed to increase thereafter annually like the sanitation tariffs. The target is to cover (i) operation and maintenance costs; (ii) operation and maintenance costs plus depreciation; and (iii) operation and maintenance costs plus total debt service plus replacements. Tariff increments are benchmarked on domestic customers' affordability and targeted cost recovery level. The demand forecast assumes that all water from existing alternative sources will be replaced with subproject water supply. Moreover, also the existing septic tanks, cesspits and pit latrines in use will be replaced by connections to the extended sewerage network.

44. **Operations & Maintenance (O&M).** Subproject operation and maintenance costs include staff salaries, power and energy, maintenance, and miscellaneous expenses for water supply and wastewater disposal. It is assumed that the current operation and maintenance costs will increase continuously until 2018, when the new water and sewerage system will start to operate. The required staff strength for water and waste water operation is estimated to be 100 in 2018. The annual average cost of staff is estimated to be \$6,758.06 including taxes and social security premiums. The energy expenditure is calculated to be \$96.97/mWh and expenditures for chemicals \$3.39 for 1000 cubic meter of water produced in 2018. The maintenance of civil works is taken as 0.5% of asset value while the repair and maintenance of electrical and mechanical equipment is calculated as 2.5% of the value of assets. Maintenance expenses are assumed to increase significant from 2013 to 2018. This is mostly due to the repair and maintenance of new assets that will be added, which will constitute a major portion of the O&M expenditures.

45. **Current Tariffs.** In the project area the national operator UWSCG currently offers only a sanitation service billed for households on a per capita base in the project area. The related net tariff is \$0.321 per person per month, which became effective in September 2010. However, as of the beginning of 2018, all customers are assumed to be billed based on actual water meters

since all customers will have water meters upon completion of the project. The current water and sewerage tariffs for metered consumption representative for almost all areas in Georgia were increased and made effective in November 2011, for both domestic and non-domestic customers. For domestic customers the valid net WSS tariff is \$0.256/cum and for non-domestic customers it is \$2.212/cum based on the following breakdown:

- (i) domestic water supply: \$0.215/cum;
- (ii) domestic sanitation charge: \$0.041/cum;
- (iii) non-domestic water supply: from \$1.733/cum
- (iv) non-domestic sanitation: from \$0.479/cum.

## C. Financial Projection

46. **Tariff.** In the financial projections, where revenues and costs are given in nominal terms, the water supply tariffs are projected to increase annually between 2015 and 2040 to cover O&M cost, asset replacements and total debt service as far as possible. Similar annual tariff increases are applied also on the wastewater disposal tariff. For both services the tariffs for non-domestic customers were fixed by applying a cross subsidization factor decreasing towards 3 for 2017 and thereafter.

47. **Affordability Analysis.** An affordability analysis was undertaken to compare the level of household water expenditure with the average household income. Table 10 presents the affordability levels for selected years. Average water and wastewater affordability ratio (bill/monthly income) is calculated to be 0.17% in 2011 and increases up to 1.03% in 2017. Starting in 2018 the tariffs for wastewater disposal and the newly introduced water supply service lead to an affordability ratio of 5.0%. Thereafter due to increases in the tariffs equal to the projected income increases a constant the affordability ratio of 5% until 2040 is assumed. This corresponds to the internationally accepted threshold limit of 5%, which implies that the proposed domestic tariffs are affordable by population.

**Table 10: Tariff Affordability**

		2011	2017	2018	2019	2020	2030	2040
Daily water consumption per head	lcd	140.00	140.00	140.00	140.00	140.00	140.00	140.00
Monthly water consumption per head	m <sup>3</sup> / month	4.26	4.26	4.26	4.26	4.26	4.26	4.26
Proposed water tariff for households	USD / m <sup>3</sup>	-	-	1.12	1.18	1.26	2.26	4.06
Proposed sanitation tariff for households	USD / m <sup>3</sup>	0.04	0.36	0.74	0.79	0.84	1.51	2.71
Average monthly bill water supply (incl. VAT)	USD	-	-	5.61	5.95	6.31	11.35	20.42
Average bill water supply plus sanitation (inc. VAT)	USD	0.21	1.81	9.35	9.91	10.51	18.92	34.04
Average monthly HH income per head	USD / head	123.94	176.30	186.97	198.28	210.28	378.36	680.78
Percent of income spent for water supply	Percent	-	-	3.00%	3.00%	3.00%	3.00%	3.00%
Percent spent for water supply and sanitation	Percent	0.17%	1.03%	5.00%	5.00%	5.00%	5.00%	5.00%

HH = household, lcd = liters per capita per day, m<sup>3</sup> = cubic meter.

Source: United Water Supply Company of Georgia estimates.

48. From the analysis, tariff increases required for the subproject is within customer affordability but will not generate enough revenues to cover O&M cost, asset replacements and debt service payments. Therefore a VGF was considered and focused on different targets. Politically, exponential tariff increases are unacceptable, and it is proposed that a VGF will provide the buffer to meet required operating ratios before financial reforms and progressive tariff increases reduce dependence on subsidies.

49. Regarding the VGF, four different periods were analysed, covering the years 2011 to 2040, the reference year for the engineers' infrastructure design. However, for these periods the necessary VGF to achieve certain targets were calculated and is detailed below in Table 11.

50. There are first the VGF amounts listed which are necessary to ensure the operator's financial viability (liquidity). They sum up to \$34.98 million and cover together with the revenues the O&M cost and additionally the replacement expenditures as well as the total debt service payments. Additional VGF support amounting to \$119.17 million is needed to ensure a sufficiently high FIRR in the base case. However, the purpose of the third part of VGF (\$64.53 million) listed in Table 11 is for risk prevention, because otherwise in the worst case scenario (increase in capital and O&M cost by 10%), the FIRR would be lower than the benchmark WACC. This means that in total \$217.38 million is required through the design life when the worst case scenario is considered.

**Table 11: Required Viability Gap Funding (in USD)**

Period	Revenues	O&M costs	Replacements	Debt Service	VGF for liquidity	VGF for FIRR>WACC	VGF for risk prevention	VGF total
2011 to 2017	5.006	6.007	0.000	0.000	1.060	0.000	0.000	1.060
2018 to 2024	83.799	42.663	0.000	52.579	12.300	119.167	19.641	151.108
2025 to 2031	129.565	57.282	30.851	55.067	20.320	0.000	19.641	39.961
2032 to 2040	275.521	104.527	33.267	65.232	0.000	0.000	25.252	25.252
2011 to 2040	493.890	210.480	64.118	172.877	34.982	119.167	64.533	217.381

FIRR = financial internal rate of return, O&M = operation and maintenance, TDS = total debt service, VGF = viability gap funding.

51. The above analysis shows that UWSCG will be in a position to meet the operation and maintenance cost from the revenues generated, and can therefore fulfil the requirement of maintaining operating ratio of less than 1 as defined in the loan agreement. The current water and sanitation tariffs are very low, and in the financial analysis it is proposed to reset the initial tariffs at a higher level based on the affordability analysis. However, even if it is assumed that the government start revising tariffs from the current level in FY 2017 and onwards at an average incremental rate of 5% per annum, the revenue generated will fall short to meet the operation and maintenance cost till FY 2030 (ranging from \$2.46 million in 2018 to \$0.5 million in 2028 in nominal terms). In such situation, the government will have to provide viability gap funding to UWSCG in order to meet the operating ratio. However, with the strengthening of the tariff regulatory authority under the Investment Program, it is expected that the tariffs will be revised regularly by taking into consideration UWSCG's operation and maintenance costs, including replacement of assets, and customer affordability, thereby dependence on the government subsidy will be reduced.

52. **Weighted Average Cost of Capital.** The WACC was calculated in real terms and was used as the hurdle rate for the FIRR to measure subproject viability. Funding sources are the ADF loan, the OCR loan and Government contribution. Average inflation is estimated at 1.0% per annum for foreign cost and at 5.0% for local costs. The rates are computed on after-tax basis, resulting in the WACC in real terms estimated at 3.07% for the Zugdidi subproject as presented in Table 12.

**Table 12: Weighted Average Cost of Capital**

	Capital Investments		Nominal Rate	Corporate Profit Tax	After Tax Rate	Inflation rate	Real Rate	WACC Real
	MUSD	%						
ADB - Asian Development Fund (ADF)	32.56	17.6%	2.08%	15.0%	1.77%	1.00%	0.76%	0.13%
ADB - Ordinary Capital Resources (OCR)	115.26	62.3%	3.12%	15.0%	2.65%	1.00%	1.64%	1.02%
Government	37.30	20.2%	15.00%	0.0%	15.00%	5.00%	9.52%	1.92%
Total Capital Investment	185.12	100.0%						3.07%

ADB = Asian Development Bank, ADF = Asian Development Fund, OCR = Ordinary Capital Reserves, WACC = weighted average cost of capital.

Source: United Water Supply Company of Georgia estimates.

53. **Sensitivity Analysis.** Table 13 provides the results of sensitivity tests under highly adverse economic conditions. The sensitivity analysis assumes that the VGF will be provided by the Government in the amounts required for the worst case scenario (capital and O&M cost + 10%).

**Table 13: Financial Internal Rate of Return**

	FIRR Percent	FNPV MUSD
Base Case	5.12%	19.468
Capital Cost increase by 15%	3.09%	0.131
O&M Cost increase by 10%	4.47%	12.892
Revenues decrease by 10%	3.89%	7.259
1-year delay in revenue	4.30%	11.920
Capital and O&M Cost increase by 10%	3.07%	0.000
Switching value Capital Cost	15.10%	
Switching value O&M Cost	29.60%	
Switching value Revenue	-15.95%	
Switching value Revenue	10.00%	
WACC	3.07%	

FIRR = financial internal rate of return; FNPV = financial net present value;

Switching value = change in parameter that will make the FIRR equal to the WACC.

Source: United Water Supply Company of Georgia estimates

54. The subproject is financially not viable, as the consumer base is very small to recover the large size of investments through only affordable water tariffs. Since there is no other source of non-tariff revenues, the government needs to strictly implement proposed annual tariff increases, and should also make available VGF as presented in the financial analysis. Income affordability is a major factor in rationalizing tariffs, thus the monthly household income needs to be reviewed periodically while fixing tariffs. But the subproject can be justified on the grounds of having adequate economic rate of return. In addition, the tariff revenues are sufficient to meet operation and maintenance cost in the long run ensuring sustainability of the assets.

**Table 14: Financial Internal Rate of Return  
(in million USD)**

Year	Revenue	Viability Gap	Delayed Revenue	Financial Cost			Net Benefits					
		Funding		Capital	O&M	Total	Base case	Capital + 15%	O&M + 10%	Revenue -10%	1-yr Delay in Benefit	Cap & O&M + 10%
2011	0.298	-	-	-	0.143	0.143	0.155	0.155	0.141	0.125	(0.143)	0.141
2012	0.284	-	0.298	-	0.228	0.228	0.056	0.056	0.033	0.028	0.069	0.033
2013	0.272	-	0.284	-	0.314	0.314	(0.042)	(0.042)	(0.073)	(0.069)	(0.029)	(0.073)
2014	0.259	-	0.272	-	0.399	0.399	(0.140)	(0.140)	(0.180)	(0.166)	(0.128)	(0.180)
2015	0.482	0.082	0.259	39.394	0.551	39.944	(39.380)	(45.289)	(39.435)	(39.428)	(39.603)	(43.374)
2016	0.880	-	0.482	48.361	0.780	49.141	(48.261)	(55.515)	(48.339)	(48.349)	(48.658)	(53.175)
2017	1.568	0.716	0.880	35.970	2.488	38.458	(36.173)	(41.569)	(36.422)	(36.330)	(36.861)	(40.019)
2018	7.004	14.199	1.568	-	4.106	4.106	17.097	17.097	16.686	16.396	11.661	16.686
2019	7.099	15.669	7.004	-	4.113	4.113	18.654	18.654	18.242	17.944	18.559	18.242
2020	7.195	14.620	7.099	-	4.119	4.119	17.695	17.695	17.283	16.975	17.599	17.283
2021	7.292	13.610	7.195	-	4.126	4.126	16.776	16.776	16.364	16.047	16.678	16.364
2022	7.392	12.646	7.292	-	4.134	4.134	15.904	15.904	15.491	15.165	15.805	15.491
2023	7.492	11.727	7.392	-	4.141	4.141	15.078	15.078	14.664	14.329	14.978	14.664
2024	7.594	10.840	7.492	-	4.148	4.148	14.285	14.285	13.870	13.526	14.183	13.870
2025	7.697	1.417	7.594	-	4.155	4.155	4.958	4.958	4.543	4.189	4.855	4.543
2026	7.801	1.350	7.697	-	4.163	4.163	4.988	4.988	4.572	4.208	4.884	4.572
2027	7.906	1.285	7.801	-	4.170	4.170	5.022	5.022	4.605	4.231	4.916	4.605
2028	8.013	6.324	7.906	7.082	4.177	11.259	3.078	2.016	2.661	2.277	2.972	1.952
2029	8.122	4.752	8.013	4.894	4.184	9.078	3.795	3.061	3.377	2.983	3.687	2.887
2030	8.231	1.110	8.122	0.387	4.192	4.579	4.763	4.704	4.343	3.939	4.653	4.305
2031	8.343	1.057	8.231	0.702	4.199	4.901	4.500	4.394	4.080	3.665	4.388	4.010
2032	8.457	1.007	8.343	0.505	4.207	4.712	4.752	4.676	4.331	3.906	4.638	4.280
2033	8.572	0.959	8.457	-	4.215	4.215	5.316	5.316	4.895	4.459	5.201	4.895
2034	8.688	0.913	8.572	-	4.222	4.222	5.379	5.379	4.957	4.510	5.263	4.957
2035	8.806	0.870	8.688	-	4.230	4.230	5.446	5.446	5.023	4.565	5.328	5.023
2036	8.925	0.829	8.806	0.360	4.237	4.597	5.156	5.102	4.733	4.264	5.037	4.697
2037	9.046	0.789	8.925	0.561	4.245	4.806	5.029	4.944	4.604	4.124	4.908	4.548
2038	9.168	0.752	9.046	-	4.253	4.253	5.667	5.667	5.242	4.750	5.545	5.242
2039	9.292	0.716	9.168	-	4.260	4.260	5.747	5.747	5.321	4.818	5.624	5.321
2040	9.417	0.682	9.292	6.959	4.268	11.227	(1.128)	(2.172)	(1.555)	(2.070)	(1.253)	(2.251)
NPV	122.091	92.054	114.543	128.912	65.765	194.677	19.468	0.131	12.892	7.259	11.920	0.000
Applied WACC (real)	3.074%					FIRR	5.123%	3.086%	4.470%	3.890%	4.302%	3.074%
						Discount Rate @ WACC	19.468	0.131	12.892	7.259	11.920	0.000
Time span	30 years					Sensitivity Indicator	FIRR	2.7	1.3	2.4	2.6	4.0
							FNPV	6.6	3.4	6.3	6.3	10.0
						Switching Value	FIRR	15.1%	29.6%	-15.9%		10.0%
							FNPV					

## UPDATED SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country:	Georgia	Project Title:	Urban Services Improvement Investment Program – Project 5
Lending/Financing Modality:	Multitranchise Financing Facility	Department/ Division:	Central and West Asia Department Urban Development and Water Division

### I. POVERTY AND SOCIAL ANALYSIS AND STRATEGY

Targeting classification: Targeted intervention (TI-M7)

#### A. Links to the National Poverty Reduction and Inclusive Growth Strategy and Country Partnership Strategy

The Investment Program links with the government's urban water supply and sanitation (WSS) sector development plan (SDP) for 2011–2020 approved on 31 January 2011. The SDP aims to ensure continuous and reliable water supply and safe sanitation services to all urban residents by 2020. It also supports national targets to improve health and reduce household expenditure on medical care. The ADB Country Partnership Strategy (CPS) for Georgia (2014–2018) has a focus on addressing infrastructure bottlenecks, particularly those that are likely to have high economic and social impacts, such as improving vital urban infrastructure, including municipal services and WSS networks. ADB will assist the government to make the growth process more inclusive by supporting improved urban service delivery, and improving social and economic infrastructure in small towns and secondary cities. Environmental sustainability will be enhanced through assistance for clean urban transport, improved water supply, sanitation and solid waste management, and hydropower development.

#### B. Results from the Poverty and Social Analysis during PPTA or Due Diligence

**1. Key poverty and social issues.** Widespread poverty has been a major unresolved problem for Georgians since independence in 1991. Out of around 4.5 million Georgians, about 1 million are estimated to be “poor” and about 400,000 of these persons are classified as “extremely poor”. Georgia experienced jobless growth from 2004 to 2012 with an open unemployment rate of 15.5% in 2012 and another fifth of the labor force under-employed. Limited job opportunities encourage a high rate of out migration. Georgia's targeted social assistance program is key to improving living standards for the poor. One third of officially recognized poor households and 40% of extremely poor households receive no social assistance at all. Free health insurance for vulnerable families is concentrated in the poorest quintile of households, but even in this group only 21.3% are covered. The government is improving the targeting mechanism of the targeted social assistance program but realizes that creating employment is the best way to reduce poverty. Poverty is particularly high in secondary towns. 34% of households surveyed in Zugdidi live below GEL150, well below the monthly minimum subsistence level of GEL220 (\$121)/household (equivalent to GEL61 (\$33.55) / person for an average household of 3.6 persons). The national average is just 9.4%, confirming the UNICEF assertion that poverty in Georgia is mainly concentrated in secondary towns. Zugdidi has a significant (31%) Internally Displaced Persons (IDP) population.

**2. Beneficiaries.** Only 82% of urban residents have access to piped water service in Georgia, where the MDG-7 target is 95%. Almost 64% of customers served by United Water Supply Company of Georgia (UWSCG) experience only intermittent service, as only 25% of service centers provide 24-hour coverage. Almost half of urban residents lack piped sewer connections and rely on other onsite sanitation systems, including pit latrines and septic tanks. Wastewater treatment is extremely limited, threatening public health and the environment.

The number of households in secondary towns directly supplied by UWSCG with tap water is 57%, while 35% of households obtained water through a tap from another source or water tanker and the rest have no supply at home.<sup>a</sup> These figures actually reflect a wide range of conditions, as some secondary towns are fully equipped with piped water and others, such as Zugdidi, require all families to use alternative sources because the piped water system has not operated since the war in 1993. Among those with access to piped water, almost half have supply for only 3–4 days per week, mostly for only 2–4 hours per day.

To cope with the situation, customers purchase storage tanks and water pumps to cover the times when water supply is cut. Those without access to piped water dig wells or boreholes and pump water into a range of containers. Only 2% of households try to improve the quality of water before using it for drinking and cooking by filtering, boiling, or chlorinating it. The proportion of all households spending more than 3% of their income on utilities was 7.5%. Average water-related costs are GEL2.5/month. Functional central sewerage systems reach 38.2% of households.

Knowledge and information on the importance of WSS services is at a basic level, as are customer rights and tariff schemes.

**3. Impact channels.** In Zugdidi town, there will be construction of a new 24/7 water supply system under Project 4, as 84% of population in the town has no access to the piped water supply system. It is therefore proposed to provide a comprehensive sewage collection and treatment facility to cover entire town of Zugdidi under Project 5.

For Mestia town, the water supply and sewerage system has been commissioned under through financing under



earlier tranches of the Investment Program. A sewage treatment plant will be built under Project 5 for Mestia town.

**4. Other social and poverty issues.** The main issue is unemployment, followed by social protection, both of which are included as key items in the government's key development strategy and financing plan: Basic Data and Directions (BDD), 2013 to 2016. Priorities are sustained and inclusive growth while ensuring macroeconomic stability.

**5. Design features.** Improving WSS services and generating awareness of the importance of clean water and hygiene will improve public health and hygiene, especially among the poor, internally displaced, and households headed by women. In communities of internally displaced people, the improved water quality and provision of public toilets and washing facilities will reduce waterborne and sanitation-related disease and significantly cut coping costs incurred to compensate for inadequate water supply and low water pressure. The quality of life will be enhanced by environmental improvement consequent to proper sewerage and sewage treatment in towns with decaying infrastructure and pit latrines. Construction for physical investments under the Investment Program will create temporary employment and require labor for system operation and maintenance in the long term.

## II. PARTICIPATION AND EMPOWERING THE POOR

There is no specific role for civil society in this project. A policy and advisory technical assistance preceding the Investment Program consulted with central and local governments, civil society including nongovernment organizations (NGOs), and community men and women meeting separately, using key informant interviews, surveys, and focus group discussions. These consultations were used to inform design of the Investment Program. During previous tranches, an NGO has been used to develop and pilot community awareness raising materials and messages regarding water and hygiene. This responsibility has now been assumed by the water utility UWSCG, under its community outreach function and the project management consultants will have a team to assist with this function during project implementation.

☒ Information gathering and sharing ☒ Consultation ☐ Collaboration ☐ Partnership

Will a project level participation plan be prepared to strengthen participation of civil society as interest holders for affected persons particularly the poor and vulnerable?

☐ Yes. ☒ No.

## III. GENDER AND DEVELOPMENT

Gender mainstreaming category: Effective gender mainstreaming

**A. Key issues.** Georgian women experience high levels of unemployment (only 48.5% of economically active women are employed), and women are concentrated in the informal sector and lower-paying part-time work (health care, education, agriculture).<sup>b</sup> Factors hampering women's economic participation include an unpaid domestic work burden, the absence of affordable childcare, unequal access to assets and resources, and unequal say within households. Access to water and improved sanitation are significant problems in some secondary towns, affecting women particularly as they are responsible for purchasing, fetching, or pumping water for domestic use, maintenance of shared latrines and caring for those who get sick as a result of inadequate sanitation. Opportunities for integrating gender concerns into ADB's future investments in this sector include:

- Decrease the time women spend managing water for the household, freeing up time for their other responsibilities. Of the urban population, 18% presently has no access to piped water supply and 50% has no access to a reticulated sewerage system. Almost half of households with access to piped water supply only receive water 3–4 days per week and for 2–4 hours per day.<sup>c</sup>
- Support awareness-raising among women in secondary towns on what constitutes good water management and service standards so that they can monitor the performance of water utilities.
- Develop consumer feedback mechanisms and monitor complaints by users to improve the responsiveness of the water utility.

**B. Key actions.** The project will directly address access to improved sewerage and sanitation services for women and their households in two urban centers – Zugdidi and Mestia respectively. Overall, access to safe sanitation will increase from 50% in 2013 to 100% in 2018 in Zugdidi; and Mestia will have a comprehensive sewage treatment facility before discharge into the river. Supporting information campaigns will leverage increased access to a sewerage system in Zugdidi to improve household hygiene and health outcomes.

☒ Gender action plan ☐ Other actions or measures ☐ No action or measure

The project GAP addresses consultation with women (as part of the water utility outreach activities, target 50% of those consulted), employment of women (15% minimum of new positions created through the project, and 30% in customer care), with a stipulation that all advertisements explicitly encourage applications from qualified women, and within the design limitations of the sewerage network, ensuring maximum access to women in vulnerable households (widows, single parent women, senior citizens etc.). Additionally, the GAP seeks to institutionally strengthen the water utility to address gender concerns through disaggregating customer feedback by sex for gender analysis and future planning; maintaining equal employment opportunities for the women and men in UWSCG, and facilitating their career development; and encouraging a pipeline of water sector professionals who are female through encouraging the enrolment of girls at the WSS program at university level. A continuing activity from the previous tranche is outreach to customers through developing and disseminating information, education and communication (IEC) material on water,

hygiene, sanitation, customer rights and water usage efficiency.

<b>IV. ADDRESSING SOCIAL SAFEGUARD ISSUES</b>	
<b>A. Involuntary Resettlement</b>	<b>Safeguard Category:</b> <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI
<p>The water supply subproject in Zugdidi and sewage treatment plant subproject in Mestia under Project 5 of the Investment Program will not require land acquisition as construction of the project components such as sewage pumping station, sewage treatment plants, etc. will be constructed in unoccupied areas already owned by the government, and sewerage networks will be laid under public roads. The land is indeed owned by the government and no people are or have been living or farming informally on these lands, and there are no other outstanding claims on this land.</p>	
<p>Plan or other Actions.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Resettlement plan  <input type="checkbox"/> Resettlement framework  <input type="checkbox"/> Environmental and social management system arrangement  <input checked="" type="checkbox"/> No action         </div> <div style="width: 45%;"> <input type="checkbox"/> Combined resettlement and indigenous peoples plan  <input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework  <input type="checkbox"/> Social impact matrix         </div> </div>	
<b>B. Indigenous Peoples</b>	<b>Safeguard Category:</b> <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI
<p>1. Key impacts. Indigenous peoples' safeguards will not be triggered by this Investment Program, as Georgia has no such communities as defined by ADB.</p>	
<b>V. ADDRESSING OTHER SOCIAL RISKS</b>	
<b>A. Risks in the Labor Market</b>	
<p>1. Relevance of the project for the country's or region's or sector's labor market. The project will have insignificant impacts. <input type="checkbox"/> unemployment <input type="checkbox"/> underemployment <input type="checkbox"/> retrenchment <input type="checkbox"/> core labor standards</p>	
<p>2. Labor market impact. Not applicable.</p>	
<b>B. Affordability</b> Not applicable.	
<b>C. Communicable Diseases and Other Social Risks</b>	
<p>1. Indicate the respective risks, if any, and rate the impact as high (H), medium (M), low (L), or not applicable (NA):</p> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Communicable diseases         <input type="checkbox"/> human trafficking       </div> <input checked="" type="checkbox"/> Others (please specify) _____	
<b>VI. MONITORING AND EVALUATION</b>	
<p>1. Targets and indicators: Prevalence of waterborne illness in households reduced by at least 75% from current incidence of 4% of households per annum. Productive days lost to waterborne illness reduced by at least 75% from the current 8 days per person per annum. Residents' access to safe sanitation increased from 50% in 2013 to 100% in Zugdidi by 2018. Sex-disaggregated consumer database created for UWSCG to develop targeted marketing campaigns. Service center with a customer care unit staffed by at least 30% women that informs, educates, and communicates on water, hygiene, and sanitation.</p> <p>2. Required human resources: A gender specialist appointed in IPMO, UWSCG staff, and safeguard specialist from Construction Supervision Consultants are responsible for monitoring of the poverty and social impact of the project. A gender consultant appointed under RETA 7563: (Promoting Gender-Inclusive Growth in Central and West Asia Developing Member Countries) provides capacity assistance for the implementation of the GAP.</p> <p>3. Information in PAM: The IPMO consultants along with UWSCG will implement an Investment Program performance monitoring system (IPPMS) to evaluate planned facilities and benefits accrued. The IPPMS activities like collection of information, benefits monitoring and evaluation, and evaluation of social impact will be carried out by the IPMO consultants supported by the management contractor, and safeguard specialist included in the team of construction supervision and project management consultants.</p> <p>4. Monitoring tools: Most social outcomes will be monitored through implementation of the GAP, which is covenanted.</p>	

Sources:

- <sup>a</sup> United Water Supply Company of Georgia LLC figures on 1 October 2013. Relates to secondary cities and towns in Georgia, i.e. not the capital Tbilisi and not villages.
- <sup>b</sup> National Statistics Office of Georgia. Employment and Unemployment, Distribution of population 15 years and older by economic status and gender 1998–2011.  
[http://www.geostat.ge/index.php?action=page&p\\_id=146&lang=eng](http://www.geostat.ge/index.php?action=page&p_id=146&lang=eng)
- <sup>c</sup> ADB. 2013. The Way Forward: Improving Urban Water Supply and Sanitation in Georgia – Sector Development Plan.

## **SAFEGUARD REPORTS**

Below are the links to the following reports:

1. Zugdidi Town Sewerage Subproject – Draft Initial Environmental Examination:  
<http://www.adb.org/projects/documents/urban-services-improvement-investment-program-t5-zugdidi-iee>
2. Mestia Sewage Treatment Plant Subproject – Draft Initial Environmental Examination  
<http://www.adb.org/projects/documents/urban-services-improvement-investment-program-t5-mestia-iee>
3. Updated Environmental Assessment and Review Framework  
<http://www.adb.org/projects/documents/urban-services-improvement-investment-program-may-2015-earf>

## UPDATED RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
<p><b><u>Financial Management</u></b>  <b>Financial sustainability.</b> Current water sector tariffs do not cover operation and maintenance, adversely affecting service delivery</p>	High	<p>ADB to support GNEWRC through policy dialogue and training to improve tariff-setting processes. UWSCG to provide adequate information and appropriate recommendations to GNEWRC for tariff determination based on cost recovery principles and affordability to the consumers. Government to provide VGF in its annual budget to ensure that UWSCG will achieve an operating ratio of at least 1 as per UWSCG's business plan.</p>
<p><b>Financial sustainability.</b> Given suboptimal regulations, policies, and oversight, UWSCG lack the capacity necessary to set, manage, and maintain service delivery standards and ensure economic efficiency.</p>	Medium	<p>ADB supported a management consultancy contract, and asset mapping of UWSCG under the Investment Program. Annual project programming to be prepared by UWSCG during project implementation to assist Government identify CF. Government to provide written commitment to include CF in the annual budget.</p>
<p><b><u>Procurement</u></b>  <b>Procurement.</b> Decision-making processes, weak policy and regulatory frameworks, limited managerial capacity, conflicts of interest, and collusion pose significant risks</p>	Low	<p>The procurement assessment of UWSCG is satisfactory. Through advance procurement actions, the procurement process will be accelerated. UWSCG has experienced and trained procurement specialists recruited under IPMO.</p>
<p><b><u>Anticorruption</u></b>  <b>Combating Corruption.</b> While corruption has been reduced, some concerns regarding corruption remain due to lack of (i) stronger policy and regulatory frameworks, and (ii) government capacity.</p>	Low	<p>ADB will support the government's anticorruption initiatives. All project procurement shall follow ADB procedures.</p>

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
<b><u>Others</u></b>		
<b>Environmental protection.</b> Government's inability to protect the environment and natural resources from discharge of untreated sewage into water bodies	Low	The project will support UWSCG in constructing STP on design, build and operate basis to meet sewage discharge standards compliant with national legislation.
<b>Gender Mainstreaming.</b> Women will not participate in project design, planning and implementation.	Low	A Gender Specialist is appointed under IPMO with specific ToR to implement and monitor the GAP
<b>Overall</b>	<b>Medium</b>	

ADB = Asian Development Bank, CF = counterpart fund, GAP = Gender Action Plan, GNEWRC = Georgia National Energy and Water Supply Regulatory Commission, STP = sewage treatment plant, ToR = Terms of Reference, UWSCG = United Water Supply Company of Georgia, VGF = viability gap funding.  
Source: Asian Development Bank.

## Project Climate Risk Assessment and Management Report

### I. Basic Project Information

<b>Project Title:</b> MFF 0055-GEO Urban Services Improvement Investment Program – Tranche 5
<b>Project Budget:</b> \$75 million
<b>Location:</b> Georgia
<b>Sector:</b> Water and other urban infrastructure and services
<b>Theme:</b> Urban sanitation
<b>Brief Description.</b>
<p>The project comprises of provision of a comprehensive sewerage system including a sewage treatment plant (STP) in Zugdidi town, and construction of STP in Mestia town. The sewer lines in Mestia towns have already been laid and commissioned under Projects 1 and 2 of the Investment Program.</p> <p>Zugdidi town is located in the western part of the country in the Georgian historical province of Samegrelo, approximately 330 km west of Tbilisi and 30 km east of Black sea coast. The town is the fifth largest of Georgia and is located on the left bank of the Enguri River. The total area of Zugdidi Municipality is 16.85 km<sup>2</sup> with altitude of 80-120 meters above sea level. The urban population of Zugdidi Municipality was 72,244 inhabitants in 2010 including Internally Displaced People (IDP), and projected population for 2040 is 81,048. The annual rainfall is approximately 624 mm. The monthly temperature ranges from 6°C in January to 23°C in July. Currently, only 5,050 inhabitants have sewerage system in Zugdidi but there is no functional sewage treatment facility. About 46.6% of population has flush toilets inside the house. The sanitation conditions are poor, especially in IDP settlements where several families. The proposed sewerage system will comprise of laying 178 km sewer lines, 23 new sewage pumping stations, and a new STP to handle average sewage flow of 9.8 Mld in 2020 and 10.6 Mld in 2040.</p> <p>Mestia is located in the north-western part of the country in the Caucasus Mountains and 128 km northeast of the regional capital of Zugdidi. The total population of the town amounts to 2,855 (2010) and projected population is 5,299 (2040). In addition current tourist population is about 5,000 in a year. The total area of the Mestia Municipality is 3,044 km<sup>2</sup> and the average altitude of the town is 1,450 meters. With financial support of Asian Development Bank (ADB), a water transmission pipeline with total length of 10.745 km, water intake, and reservoir with capacity of 2000 m<sup>3</sup> and Chlorination was constructed and commissioned in July 2014 under Project 1. Under Project 2, also financed by ADB, potable water network with total length of 43 km, sewer network with total length of 54 km and a new office building for UWSCG Mestia service center was constructed and completed in July 2014. Most of the households are also connected to water and sewer networks. Under the ongoing Project 1, it is planned to construct a water treatment plant and additional reservoirs by end of 2016. There is no sewage treatment facility in Mestia and low volume of sewage is being discharged in the river. It is therefore proposed to construct a small new STP in Mestia under Tranche 5 to handle average sewage flow of 1.5 Mld in 2020 and 4.2 Mld in 2040.</p>

### II. Summary of Climate Risk Screening and Assessment

<b>A. Sensitivity of project component(s) to climate/weather conditions and sea level</b>	
Project component	Sensitivity to climate/weather conditions and sea level
<ol style="list-style-type: none"> <li>Construction of sewerage system including STP in Zugdidi</li> <li>Construction of STP in Mestia</li> </ol>	<ol style="list-style-type: none"> <li>Intensity and frequency of heavy rainfall events;</li> </ol>
<b>B. Climate Risk Screening</b>	
Risk topic	Description of the risk
For Mestia sewerage	<ol style="list-style-type: none"> <li>While STP deal with only sewage and not storm water, floods and snow loading might affect on the increase of the drainage in short term and exceed the capacity of STP from incorrect connection of sewage pipeline. Or the river flow increase and may be back flow and prevent on smooth drainage.</li> </ol>
<ol style="list-style-type: none"> <li>Flood</li> <li>Snow loading</li> <li>Landslide</li> <li>Permafrost</li> </ol>	
For Zugdidi sewerage	<ol style="list-style-type: none"> <li>Landslide may cause damage to STP itself or hold back water of the river and decrease the flow</li> </ol>
<ol style="list-style-type: none"> <li>Flood</li> </ol>	
<b>Climate Risk Classification:</b> High (The Aware for Projects risk screening report for the project area is attached)	

### C. Climate risk assessment

The climate risk is assessed using historical data and analysis of CMIP5 Climate Projections for the Project Region from the AR 5.

Annual precipitation in Mestia ranges between 1000 and 3200 mm. The region is characterized by very heavy snowfall in the winter and avalanches are a frequent occurrence. The potential risk of flood and flash flooding exist due to heavy rains as well as exceptional melting of glaciers feeding Mestiachiala river. Average annual temperature in Mestia is +5.8°C. Temperature of the coldest months (December to March) fluctuates from -1.4°C to 2.7°C (in December) to 4.9°C to 5°C (January and February). The temperature during the warmest months (July to September) is in the range of 10.3°C to 13.1°C.

Zugdidi is located between Enguri and Rhuki rivers and on the northeast by Chkhoushia and Khakati rivers. The STP is located on the banks of river Chkhoushia. The potential risk of flood and flash flooding exist given the history of flooding in the area due to combination of heavy rains and early snow melt which causes adjacent rivers to overflow.

According to analysis of CMIP5 Climate Projections for the Project Region, the temperature may likely increase 0.5-2°C in winter and 1-3°C in summer in 2046-2065. The precipitation may likely increase by 10% in winter and decrease by 10% in summer in 2046-2065.

The increase in winter precipitation combined with warming, may lead to increase in the frequency and/or intensity of winter flooding in Mestia.

### III. Climate Risk Management Response within the Project

Evaluation of riverbed management methods to identify the most efficient methods to reduce the risks of expected catastrophes will be done during detailed design of the project component.

The following measures will be considered in the project design and implementation to address climate risks identified.

1. Development of the strategy to promote forest restoration and plant-growing along with forestry department that will promote regulation of surplus run-off and erosion processes, reduce washing out of the river banks, and also contribute to the regulation of the temperature;
2. Development of a flood management plan based on an integrated approach covering all relevant aspects of water management, land use, agriculture, and nature conservation to avoid flooding of STP area; In development of a flood management plan, decision makers, as well as stakeholders and civil society would be involved;
3. Obtaining the information about the inert material obtained from the river Mestiachala bed, fixing the facts of riverbank washout and high-risk areas, presenting the information about the obtained inert material at the license-issuing body so that the existing resource of the inert material should be re-considered and mining volume should be regulated; and
4. Extending river protection works by erection double gabion walls as currently been contracted at the opposite edge of the future STP location. This would be the most efficient measure to avoid gushing of water in STP area during the floods.

Additional measures considered based on USEPA guidelines include the following:

5. The construction material used shall be resistant to withstand extreme climatic conditions. Peak winds are considered in the structural design of the STPs according to SNIP "construction climatology" 1015.09<sup>1</sup>
6. Dry flood-proofing buildings with watertight windows and doors;
7. All the STP units and equipment are elevated well above HFL for their protection;
8. Submersible pumps are used for sewage pumping and electrical equipment are protected with watertight casings;
9. 100% backup power generation has been provided for STPs

The STPs in Zugdidi and Mestia will be bid out on Design-Build-Operate basis, wherein a private sector contractor cum operator will be involved in design and construction of STPs, as well as for operation during initial period of at least 5 years. All the climate change risk management measures will be indicated in the bidding documents and the private sector bidders would be encouraged to provide innovative solutions in their design for climate risk management. The cost of all such mitigation measures will be included in the project cost, which will be financed through loan.

<sup>1</sup> Inputs from Kocks Consulting, GmbH – Project design consultants

# 01

## Introduction

This report summarises results from a climate risk screening exercise. The project information and location(s) are detailed in Section 02 of this report.

The screening is based on the Aware<sup>TM</sup> geographic data set, compiled from the latest scientific information on current climate and related hazards together with projected changes for the future where available. These data are combined with the project's sensitivities to climate variables, returning information on the current and potential future risks that could influence its design and planning.

## Project Information

**PROJECT NAME:** Urban Services Improvement Investment Program (USIIP), Tranche 5

**SUB PROJECT:** Sewage Treatment Plant (STP) in Mestia

**REFERENCE:** .

**SECTOR:** Urban sanitation

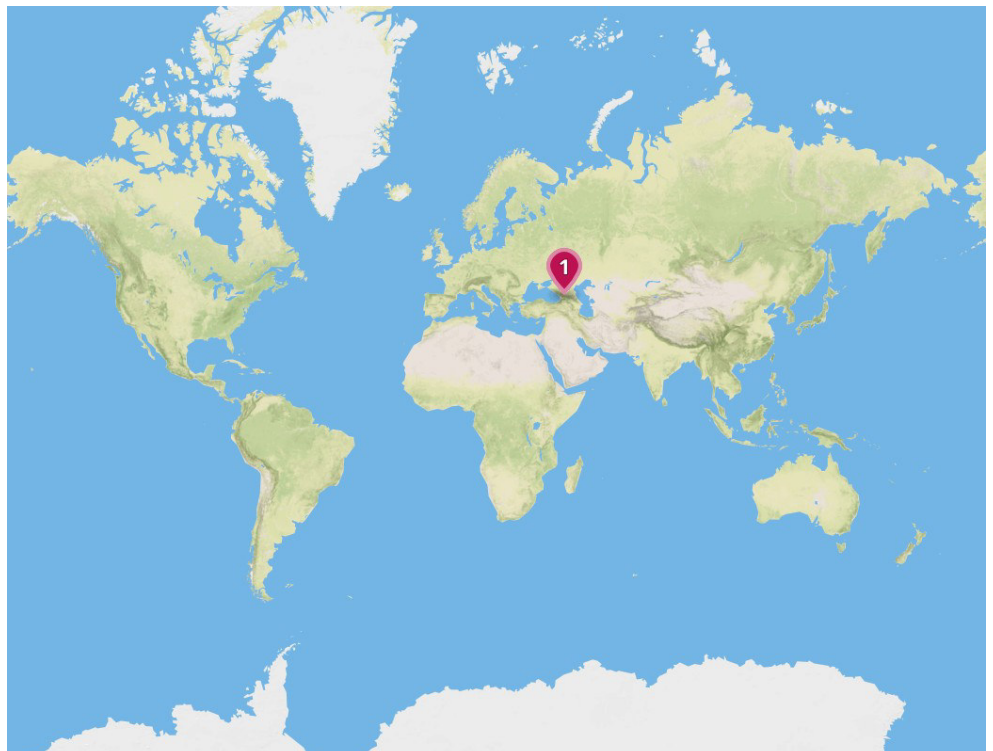
**SUB SECTOR:** Sewage and wastewater treatment plant

**DESCRIPTION:**

# 02

## Chosen Locations

1) Russia





# 03

## Project Risk Ratings

Below you will find the overall risk level for the project together with a radar chart presenting the level of risk associated with each individual risk topic analysed in Aware™. Projects with a final “High risk” rating are always recommended for further more detailed climate risk analyses.

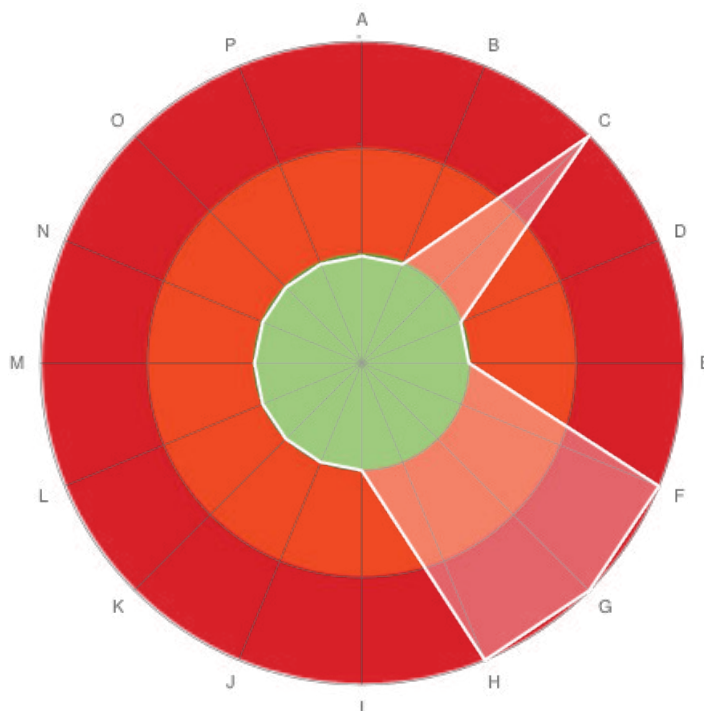
The radar chart provides an overview of which individual risks are most significant. This should be used in conjunction with the final rating to determine whether the project as a whole, or its individual components, should be assessed in further detail. The red band (outer circle) suggests a higher level of risk in relation to a risk topic. The green band (inner circle) suggests a lower level of risk in relation to a risk topic.

In the remaining sections of this report more detailed commentary is provided. Information is given on existing and possible future climate conditions and associated hazards. A number of questions are provided to help stimulate a conversation with project designers in order to determine how they would manage current and future climate change risks at the design stage. Links are provided to recent case studies, relevant data portals and other technical resources for further research.

### Final project risk ratings

## High Risk

### Breakdown of risk topic ratings



A) Temperature increase
B) Wild fire
C) Permafrost
D) Sea ice
E) Precipitation increase
F) Flood
G) Snow loading
H) Landslide
I) Precipitation decrease
J) Water availability
K) Wind speed increase
L) Onshore Category 1 storms
M) Offshore Category 1 storms
N) Wind speed decrease
O) Sea level rise
P) Solar radiation change

# 04

HIGH  
RISK

## PERMAFROST

### ACCLIMATISE COMMENTARY



Our data suggest that the project is located in a permafrost region. This is based on post-processed data from the US National Snow and Ice Data Centre (NSIDC) for the Northern Hemisphere. Up to date information on permafrost conditions worldwide is available online from the [NSIDC](#).

#### 1. What the science says could happen in the future and what does this mean for the design of my project?

- The impact of increasing average temperatures will be more noticeable in the higher latitudes and therefore assets and infrastructure built during stable ground conditions could be at risk.
- Existing engineering designs may not take into consideration the impact of climate change on permafrost. See "Critical thresholds" in the "Help & glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- If ground stability in permafrost regions can be identified as a potential problem for the project, it is recommended that a more localised and in-depth assessment is carried out. This information can then be used to inform the project design process if necessary.

#### 2. As a starting point you may wish to consider the following questions:

**Q1** Would the expected performance and maintenance of the project be impaired by hazards associated with melting permafrost?

**Q2** Are there any plans to integrate climate change factors into a permafrost risk assessment for the project?

**Q3** Is there a need for ongoing structural surveys, remedial works or structural strengthening of assets located in permafrost regions?

#### 3. What next?

- See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
- Click [here](#) or [here](#) for the latest news and information relating to permafrost and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 05

HIGH  
RISK

## FLOOD

### ACCLIMATISE COMMENTARY



Our data suggest that the project is located in a region which has experienced recurring major flood events in the recent past. A high exposure in Aware means that between 1985 and 2010 there have been more than one significant, large-scale flood event in the region. This is based on post-processed data from the Dartmouth Flood Observatory at the University of Colorado. The risk and type of flooding is dependent on local geographical factors including:

- Proximity to the coast and inland water

courses

- Local topography
- Urban drainage infrastructure
- Up to date information on flood risk worldwide is available online, for example UNEP / UNISDR's [Global Risk Data Platform](#).

#### 1. What the science says could happen in the future and what does this mean for the design of my project?

- Climate change is projected to influence the frequency and intensity of flood events.
- Existing engineering designs may not take into consideration the impact of climate change on the risks from flooding. See "Critical thresholds" in the "Help & glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- If flooding is identified as a potential problem for the project, it is recommended that a more localised and in-depth assessment is carried out. This information can then be used to inform the project design process if necessary.

#### 2. As a starting point you may wish to consider the following questions:

**Q1** Would the expected performance and maintenance of the project be impaired by flooding?

**Q2** Is there a plan to integrate climate change into a flood risk assessment for the project?

**Q3** Will the project include continuity plans which make provision for continued successful operation in the event of floods?

#### 3. What next?

- See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
- Click [here](#) or [here](#) for the latest news and information relating to floods and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 06

HIGH  
RISK

## SNOW LOADING

### ACCLIMATISE COMMENTARY



Our data suggest that the project is located in a region where snow is commonly observed and future precipitation may also increase (2050s). This is based on snow extent data for the northern (1967 – 2005) and southern hemispheres (1987 – 2002) from the US National Snow and Ice Data Centre (NSIDC) in addition to precipitation projections from 16 GCMs. Up to date information on snow conditions worldwide is available online from the [NSIDC](#).

#### 1. What the science says could happen in the future and what does this mean for the design of my project?

- The impact of increasing precipitation at higher latitudes could represent an increased risk of snow loading which could impact on the structural integrity of buildings and other infrastructure.
- Existing design standards may not take into consideration the impact of climate change on snow loading risk. See "Critical thresholds" in the "Help & glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- If increased snow loading could be a problem for the project, it is recommended that a more localised and in-depth assessment is carried out. This information can then be used to inform the project design process if necessary.

#### 2. As a starting point you may wish to consider the following questions:

**Q1** Would the expected performance and maintenance of the project be impaired by heavy snow falls?

**Q2** Are there any plans to integrate climate change into a snow loading risk assessment for the project?

**Q3** Will the project include continuity plans which make provision for continued successful operation in the event of disruption from heavy snow?

#### 3. What next?

- See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
- Click [here](#) or [here](#) for the latest news and information relating to snow and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 07

HIGH  
RISK

## LANDSLIDE

### ACCLIMATISE COMMENTARY



- Our data suggest that the project is located in a region which is at risk from precipitation induced landslide events. A high exposure in Aware means that based on slope, lithology, geology, soil moisture, vegetation cover, precipitation and seismic conditions the area is classed as 'medium' to 'very high' risk from landslides. This is based on post-processed data from UNEP/ GRID-Europe.

- Risk is locally influenced by other factors, for example local slope and vegetation conditions as well as long term precipitation trends. If landslides are identified as a potential problem

for the project, it is recommended that a more localised and in-depth assessment is carried out. This information can then be used to inform the design process if necessary.

- Up to date information on landslide risk worldwide is available online, for example UNEP / UNISDR's [Global Risk Data Platform](#).

#### 1. What the science says could happen in the future and what does this mean for the design of my project?

- Climate change is projected to influence landslide risk in regions where the frequency and intensity of precipitation events is projected to increase.
- Existing engineering designs may not take into consideration the impact of climate change on the risk of landslides. Previously affected areas may suffer from more frequent and severe events. See "Critical thresholds" in the "Help & glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.

#### 2. As a starting point you may wish to consider the following questions:

**Q1** Would the expected performance and maintenance of the project be impaired by landslides?

**Q2** Will assets or operations associated with the project be in elevated areas or close to slopes?

**Q3** Is there a history of landslides in the local area where the project is proposed?

**Q4** Are there any plans to integrate climate change factors into a landslide risk assessment for the project?

**Q5** Will the project include continuity plans which make provision for continued successful operation in the event of landslides?

#### 3. What next?

- See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
- Click [here](#) or [here](#) for the latest news and information relating to landslides and climate change.

☐ I have acknowledged the risks highlighted in this section.



# 08

LOW  
RISK

## TEMPERATURE INCREASE

Would an increase in temperature require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by increases in temperature.

## ACCLIMATISE COMMENTARY

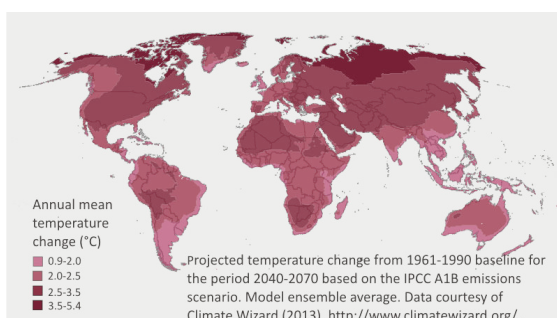
### 1. What does this mean for the design of my project?

- Even though you have suggested that project designs would not be sensitive to rising temperatures, it is worth considering existing temperature related hazards in the region where the project is planned.
- There is a potential for an increase in incidences where current design standards will not be sufficient. See "Critical thresholds" in the "Help and glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- The design, operational and maintenance standards should be reviewed - take into consideration current impacts of high temperatures as well as potential future changes.

### 2. How could current high temperatures affect the project even without future climate change?

- Heatwaves put stress on buildings and other infrastructure, including roads and other transport links. In cities, the 'urban heat island' can increase the risk of heat related deaths.
- Warm weather can raise surface water temperatures of reservoirs used for industrial cooling. In addition, this could impact local eco-systems, improving the growing conditions for algae and potentially harmful micro-organisms in water courses.
- Heatwaves can have an impact on agricultural productivity and growing seasons.
- High temperatures can have implications for energy security. Peak energy demand due to demand for cooling can exceed incremental increases on base load in addition to the risk of line outages and blackouts.
- Human health can be affected by warmer periods. For example, urban air quality and disease transmission (e.g. malaria and dengue fever) can be impacted by higher air temperatures.
- Wildfire risk is elevated during prolonged warm periods that dry fuels, promoting easier ignition and faster spread.
- Permafrost and glacial melt regimes as impacted by warm periods.
- If our data suggests that there are existing hazards associated with high temperatures in the region, they will be highlighted elsewhere in the report. This may include existing wildfire risks as well as areas potentially impacted by permafrost and glacial melt.

### 3. What does the science say could happen by the 2050s?



- Climate model projections agree that seasonal temperatures will increase by over 2 °C in the project location. This indicates a relatively low degree of uncertainty that temperatures will increase in the region.
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#)

---

for scatter plots of expected changes.

#### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to temperature and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 09

LOW  
RISK

## PRECIPITATION INCREASE

Would an increase in precipitation require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by increases in precipitation.

## ACCLIMATISE COMMENTARY

### 1. What does this mean for the design of my project?

- Even though you have suggested that designs would not be affected by increased precipitation, it is worth considering existing precipitation related hazards in the region where the project is planned.

### 2. How could current heavy precipitation affect the project even without future climate change?



- Seasonal runoff may lead to erosion and siltation of water courses, lakes and reservoirs.
- Flooding and precipitation induced landslide events.
- In colder regions, seasonal snow falls could lead to overloading structures and avalanche risk.
- If our data suggests that there are existing hazards associated with heavy precipitation in the region, they will be highlighted elsewhere in the report. This may include existing flood and landslide risks.

### 3. What does the science say could happen by the 2050s?

- Climate model projections do not agree that seasonal precipitation will increase in the project location which could indicate a relatively high degree of uncertainty (see the section "Model agreement and uncertainty" in "Help and glossary" at the end of this report). On the other hand, this could also mean precipitation patterns are not expected to change or may even decrease (see elsewhere in the report for more details of projections related to precipitation decrease).
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#) for scatter plots of expected changes.

### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to water and climate change.



# 10

LOW  
RISK

## PRECIPITATION DECREASE

Would a decrease in precipitation require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by decreases in precipitation.

## ACCLIMATISE COMMENTARY

### 1. What does this mean for the design of my project?

- Even though you have suggested that designs would not be affected by a decrease in precipitation, it is worth considering existing precipitation related hazards in the region where the project is planned.

### 2. How could current heavy precipitation affect the project even without future climate change?



- Decreased seasonal runoff may exacerbate pressures on water availability, accessibility and quality.
- Variability of river runoff may be affected such that extremely low runoff events (i.e. drought) may occur much more frequently.
- Pollutants from industry that would be adequately diluted could now become more concentrated.
- Increased risk of drought conditions could lead to accelerated land degradation, expanding desertification and more dust storms.

storms.

- If our data suggests that there are existing hazards associated with decreased precipitation in the region, they will be highlighted elsewhere in the report. This may include water availability and wildfire.

### 3. What does the science say could happen by the 2050s?

- Climate model projections agree that seasonal precipitation will decrease in the project location which could indicate a relatively low degree of uncertainty.
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#) for scatter plots of expected changes.

### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to water and climate change.

# 11

The sections above detail all High and Medium risks from Aware™. Selected Low risks are also detailed. Local conditions, however, can be highly variable, so if you have any concerns related to risks not detailed in this report, it is recommended that you investigate these further using more site-specific information or through discussions with the project designers.

## HELP AND GLOSSARY:

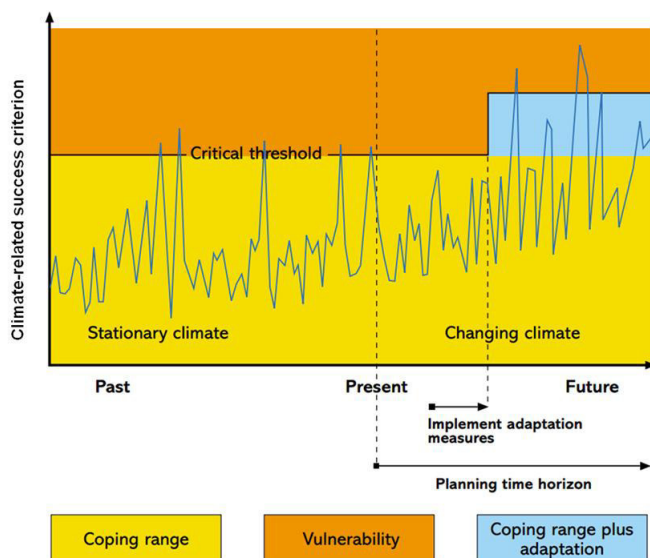
### Model agreement and uncertainty:

Although climate models are constantly being improved, they are not good enough to predict future climate conditions with a degree of confidence which would allow precise adaptation decisions to be made. Outputs from different climate models often differ, presenting a range of possible climate futures to consider, and ultimately a wide range of possible actions to take. In Aware, climate projections are described as having potentially higher degree of uncertainty when less than 14 out of 16 GCMs agree on the direction and / or a pre-defined magnitude of change.

Even with improvements in climate modelling, uncertainties will remain. It is likely that not all the climate statistics of relevance to the design, planning and operations of a project's assets and infrastructure will be available from climate model outputs. The outputs are typically provided as long-term averages, e.g. changes in average monthly mean temperature or precipitation. However, decisions on asset integrity and safety may be based on short-term statistics or extreme values, such as the maximum expected 10 minute wind speed, or the 1-in-10 year rainfall event. In such cases, project designers or engineers should be working to identify climate-related thresholds for the project (see "Critical thresholds" section below) and evaluate whether existing climate trends are threatening to exceed them on an unacceptably frequent basis. Climate models can then be used to make sensible assumptions on potential changes to climate variables of relevance to the project or to obtain estimates of upper and lower bounds for the future which can be used to test the robustness of adaptation options.

**The key objective in the face of uncertainty** is therefore to define and implement design changes (adaptation options) which both provide a benefit in the current climate as well as resilience to the range of potential changes in future climate.

### Critical thresholds:



**The relationship between a critical threshold and a climate change related success criterion for a project.** [Source: Willows, R.I. and Connell, R.K. (Eds.) (2003). *Climate adaptation: Risk, uncertainty and decision-making*. UKCIP Technical Report, UKCIP, Oxford].

A key issue to consider when assessing and prioritising climate change risks is the critical thresholds or sensitivities for the operational, environmental and social performance of a project. Critical thresholds are the boundaries between 'tolerable' and 'intolerable' levels of risk. In the diagram above, it can be seen how acceptable breaches in a critical threshold in today's climate may become more frequent and unacceptable in a future climate.

Climate change scenarios can be used to see if these thresholds are more likely to be exceeded in the future. The simplest example is the height of a flood defence. When water heights are above this threshold, the site will flood. The flood defence height is the horizontal line labelled 'critical threshold'. Looking at the climate trend (in this case it would be sea level or the height of a river) – shown by the blue jagged line – it can be seen that the blue line has a gradual upward trend because of climate change. This means that the critical threshold is crossed more often in the future – because sea levels are rising and winter river flows may be getting larger. So, to cope with this change, adaptation is needed – in this case, one adaptation measure is to increase the height

of the flood defence.

### Further reading:

	Report detailing changes in global climate: <b>The Global Climate 2001 - 2010 (PDF)</b>
	IPCC report on climate-related disasters and opportunities for managing risks: <b>Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)</b>
	IPCC report on impacts, adaptation and vulnerability: <b>Working Group II Report "Impacts, Adaptation and Vulnerability"</b>
	IFC report on climate-related risks material to financial institutions: <b>Climate Risk and Financial Institutions. Challenges and Opportunities.</b>

### Aware data resolution:

The proprietary Aware data set operates at a resolution of 0.5 x 0.5 decimal degrees (approximately 50 km x 50 km at the equator). These proprietary data represent millions of global data points, compiled from environmental data and the latest scientific information on current climate / weather related hazards together with potential changes in the future. Future risk outcomes are based on projections data from the near- to mid-term time horizons (2020s or 2050s, depending on the hazard and its data availability).

Global climate model output, from the World Climate Research Programme's (WCRP's) Coupled Model Intercomparison Project phase 3 (CMIP3) multi-model dataset (Meehl et al., 2007), were downscaled to a 0.5 degree grid.

[Meehl, G. A., C. Covey, T. Delworth, M. Latif, B. McAvaney, J. F. B. Mitchell, R. J. Stouffer, and K. E. Taylor: The WCRP CMIP3 multi-model dataset: A new era in climate change research, Bulletin of the American Meteorological Society, 88, 1383-1394, 2007]

### Aware data application:

In some instances Risk Topic ratings are only based on Aware data, including:

- Flood
- Permafrost
- Landslides

### Country level risk ratings:

These are generated from the data points within a country's borders. For single locations, site-specific data are used, and for multiple locations or countries, composite data across the portfolio of locations are used.

### Glossary of terms used in report

"Climate model projections agree": defined as more than 14 out of 16 GCMs agreeing on the magnitude (e.g. temperature warming of 2 °C) and / or direction of change (e.g. seasonal precipitation).

"Climate model projections do not agree": defined as 14 or fewer out of 16 GCMs agreeing on the magnitude (e.g. temperature warming of 2 °C) and / or direction of change (e.g. seasonal precipitation).

"Significant proportion": defined as at least 25% of locations when multiple locations are selected.

"Large proportion": defined as at least 75% of locations when multiple locations are selected.

The above thresholds are used as a means of providing a project-wide risk score where a project may be spread across multiple locations. This requires more than one individual location to be at risk to begin signifying whether there is a risk at the overall project level. However, it is always recommended that individual locations are analysed separately for more accurate, site-specific risk screening. The overall risk score for the project (high, medium or low) is based on a count of high risk topic scores. A project scores overall high risk if greater than or equal to 3 individual risk topics score high. A project scores overall medium risk if between 1 and 2 individual risk topics score high. A project scores overall low risk if none of the individual risk topics score high.

---

**DISCLAIMER:**

The Content in Aware and its output report is provided on an “as is” and an “as available” basis and without warranties of any kind either expressed or implied. To the fullest extent permissible pursuant to applicable law, Acclimatise disclaims all warranties, express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Acclimatise does not warrant that the functions contained in the Content will be uninterrupted or error-free and does not accept any responsibility for any mistakes, errors or other deficiencies in the Content and disclaims all liability in respect of your use of the Content to the fullest extent possible in each and every applicable jurisdiction.

Neither Acclimatise nor any third party content providers shall be liable for any errors, inaccuracies or delays in content, or for any actions taken in reliance thereon. The Content is for general information purposes only. The Content is provided by Acclimatise and from sources which Acclimatise believes to be reliable and whilst every endeavour is made to keep the information up-to-date, complete and correct, no representations or warranties are made of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the Content. Any reliance you place on such information is therefore strictly at your own risk.

The Content does not provide any form of advice (investment, tax, legal) amounting to investment advice, or make any recommendations regarding particular financial instruments, investments or products. Acclimatise will not be liable for any loss or damage caused by a reader's reliance on information obtained in our Content. Users are solely responsible for their own investment decisions. Acclimatise's opinions and analyses are based on sources believed to be reliable and are written in good faith, but no representation or warranty, expressed or implied, is made as to their accuracy or completeness. Acclimatise is not authorised for the conduct of investment business (as defined in the UK's Financial Services and Markets Act 2000) and the Content provided in our services and products are not intended as, and shall not constitute, investment advice.

# 01

## Introduction

This report summarises results from a climate risk screening exercise. The project information and location(s) are detailed in Section 02 of this report.

The screening is based on the Aware™ geographic data set, compiled from the latest scientific information on current climate and related hazards together with projected changes for the future where available. These data are combined with the project's sensitivities to climate variables, returning information on the current and potential future risks that could influence its design and planning.

## Project Information

**PROJECT NAME:** Urban Services Improvement Investment Program (USIIP), Tranche 5

**SUB PROJECT:** Zugdidi Sewerage

**REFERENCE:** .

**SECTOR:** Urban sanitation

**SUB SECTOR:** Sewer pipes

**DESCRIPTION:**

# 02

## Chosen Locations

1) Georgia





# 03

## Project Risk Ratings

Below you will find the overall risk level for the project together with a radar chart presenting the level of risk associated with each individual risk topic analysed in Aware<sup>TM</sup>. Projects with a final “High risk” rating are always recommended for further more detailed climate risk analyses.

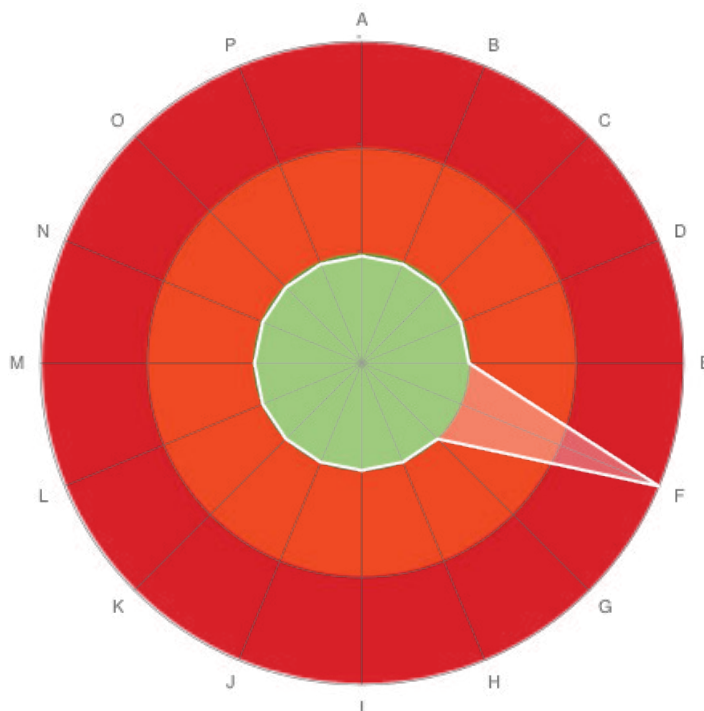
The radar chart provides an overview of which individual risks are most significant. This should be used in conjunction with the final rating to determine whether the project as a whole, or its individual components, should be assessed in further detail. The red band (outer circle) suggests a higher level of risk in relation to a risk topic. The green band (inner circle) suggests a lower level of risk in relation to a risk topic.

In the remaining sections of this report more detailed commentary is provided. Information is given on existing and possible future climate conditions and associated hazards. A number of questions are provided to help stimulate a conversation with project designers in order to determine how they would manage current and future climate change risks at the design stage. Links are provided to recent case studies, relevant data portals and other technical resources for further research.

### Final project risk ratings

## Medium Risk

### Breakdown of risk topic ratings



A) Temperature increase
B) Wild fire
C) Permafrost
D) Sea ice
E) Precipitation increase
F) Flood
G) Snow loading
H) Landslide
I) Precipitation decrease
J) Water availability
K) Wind speed increase
L) Onshore Category 1 storms
M) Offshore Category 1 storms
N) Wind speed decrease
O) Sea level rise
P) Solar radiation change



# 04

HIGH  
RISK

## FLOOD

### ACCLIMATISE COMMENTARY



Our data suggest that the project is located in a region which has experienced recurring major flood events in the recent past. A high exposure in Aware means that between 1985 and 2010 there have been more than one significant, large-scale flood event in the region. This is based on post-processed data from the Dartmouth Flood Observatory at the University of Colorado. The risk and type of flooding is dependent on local geographical factors including:

- Proximity to the coast and inland water

courses

- Local topography
- Urban drainage infrastructure
- Up to date information on flood risk worldwide is available online, for example UNEP / UNISDR's [Global Risk Data Platform](#).

#### 1. What the science says could happen in the future and what does this mean for the design of my project?

- Climate change is projected to influence the frequency and intensity of flood events.
- Existing engineering designs may not take into consideration the impact of climate change on the risks from flooding. See "Critical thresholds" in the "Help & glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- If flooding is identified as a potential problem for the project, it is recommended that a more localised and in-depth assessment is carried out. This information can then be used to inform the project design process if necessary.

#### 2. As a starting point you may wish to consider the following questions:

**Q1** Would the expected performance and maintenance of the project be impaired by flooding?

**Q2** Is there a plan to integrate climate change into a flood risk assessment for the project?

**Q3** Will the project include continuity plans which make provision for continued successful operation in the event of floods?

#### 3. What next?

- See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
- Click [here](#) or [here](#) for the latest news and information relating to floods and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 05

LOW  
RISK

## TEMPERATURE INCREASE

Would an increase in temperature require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by increases in temperature.

## ACCLIMATISE COMMENTARY

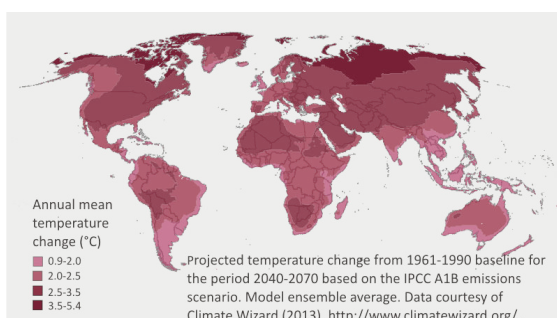
### 1. What does this mean for the design of my project?

- Even though you have suggested that project designs would not be sensitive to rising temperatures, it is worth considering existing temperature related hazards in the region where the project is planned.
- There is a potential for an increase in incidences where current design standards will not be sufficient. See "Critical thresholds" in the "Help and glossary" section for further details on how a changing climate can impact on critical thresholds and design standards.
- The design, operational and maintenance standards should be reviewed - take into consideration current impacts of high temperatures as well as potential future changes.

### 2. How could current high temperatures affect the project even without future climate change?

- Heatwaves put stress on buildings and other infrastructure, including roads and other transport links. In cities, the 'urban heat island' can increase the risk of heat related deaths.
- Warm weather can raise surface water temperatures of reservoirs used for industrial cooling. In addition, this could impact local eco-systems, improving the growing conditions for algae and potentially harmful micro-organisms in water courses.
- Heatwaves can have an impact on agricultural productivity and growing seasons.
- High temperatures can have implications for energy security. Peak energy demand due to demand for cooling can exceed incremental increases on base load in addition to the risk of line outages and blackouts.
- Human health can be affected by warmer periods. For example, urban air quality and disease transmission (e.g. malaria and dengue fever) can be impacted by higher air temperatures.
- Wildfire risk is elevated during prolonged warm periods that dry fuels, promoting easier ignition and faster spread.
- Permafrost and glacial melt regimes as impacted by warm periods.
- If our data suggests that there are existing hazards associated with high temperatures in the region, they will be highlighted elsewhere in the report. This may include existing wildfire risks as well as areas potentially impacted by permafrost and glacial melt.

### 3. What does the science say could happen by the 2050s?



- Climate model projections agree that seasonal temperatures will increase by over 2 °C in the project location. This indicates a relatively low degree of uncertainty that temperatures will increase in the region.
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#)

---

for scatter plots of expected changes.

#### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to temperature and climate change.

☐ I have acknowledged the risks highlighted in this section.

# 06

LOW  
RISK

## PRECIPITATION INCREASE

Would an increase in precipitation require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by increases in precipitation.

## ACCLIMATISE COMMENTARY

### 1. What does this mean for the design of my project?

- Even though you have suggested that designs would not be affected by increased precipitation, it is worth considering existing precipitation related hazards in the region where the project is planned.

### 2. How could current heavy precipitation affect the project even without future climate change?



- Seasonal runoff may lead to erosion and siltation of water courses, lakes and reservoirs.
- Flooding and precipitation induced landslide events.
- In colder regions, seasonal snow falls could lead to overloading structures and avalanche risk.
- If our data suggests that there are existing hazards associated with heavy precipitation in the region, they will be highlighted elsewhere in the report. This may include existing flood and landslide risks.

### 3. What does the science say could happen by the 2050s?

- Climate model projections do not agree that seasonal precipitation will increase in the project location which could indicate a relatively high degree of uncertainty (see the section "Model agreement and uncertainty" in "Help and glossary" at the end of this report). On the other hand, this could also mean precipitation patterns are not expected to change or may even decrease (see elsewhere in the report for more details of projections related to precipitation decrease).
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#) for scatter plots of expected changes.

### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to water and climate change.

# 07

LOW  
RISK

## PRECIPITATION DECREASE

Would a decrease in precipitation require modifications to the design of the project in order to successfully provide the expected services over its lifetime?

### Chosen Answer

No - modifications are not required.

The design of the project would be unaffected by decreases in precipitation.

## ACCLIMATISE COMMENTARY

### 1. What does this mean for the design of my project?

- Even though you have suggested that designs would not be affected by a decrease in precipitation, it is worth considering existing precipitation related hazards in the region where the project is planned.

### 2. How could current heavy precipitation affect the project even without future climate change?



- Decreased seasonal runoff may exacerbate pressures on water availability, accessibility and quality.
- Variability of river runoff may be affected such that extremely low runoff events (i.e. drought) may occur much more frequently.
- Pollutants from industry that would be adequately diluted could now become more concentrated.
- Increased risk of drought conditions could lead to accelerated land degradation, expanding desertification and more dust storms.

storms.

- If our data suggests that there are existing hazards associated with decreased precipitation in the region, they will be highlighted elsewhere in the report. This may include water availability and wildfire.

### 3. What does the science say could happen by the 2050s?

- Climate model projections agree that seasonal precipitation will decrease in the project location which could indicate a relatively low degree of uncertainty.
- If you want to know more about projected changes in the project location across a range of GCMs and emissions scenarios please refer to The Nature Conservancy's [Climate Wizard](#) for detailed maps and Environment Canada's [Canadian Climate Change Scenarios Network](#) for scatter plots of expected changes.

### 4. What next?

1. See the section "Further reading" in "Help and glossary" at the end of this report which lists a selection of resources that provide further information on a changing climate.
2. Click [here](#) or [here](#) for the latest news and information relating to water and climate change.

## 08

The sections above detail all High and Medium risks from Aware™. Selected Low risks are also detailed. Local conditions, however, can be highly variable, so if you have any concerns related to risks not detailed in this report, it is recommended that you investigate these further using more site-specific information or through discussions with the project designers.



## HELP AND GLOSSARY:

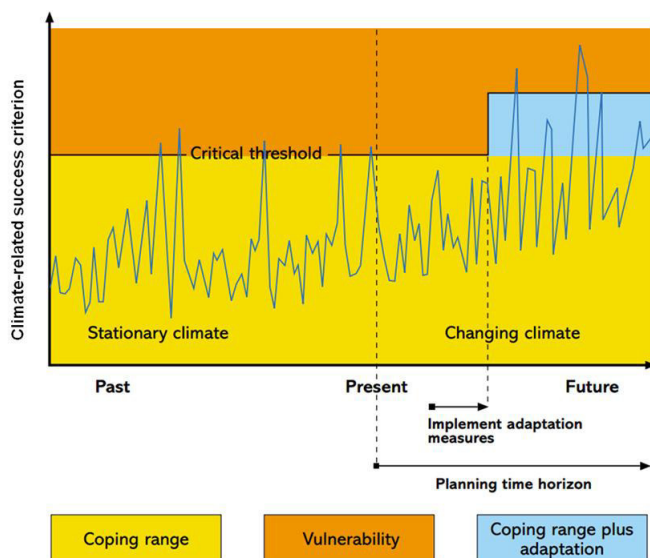
### Model agreement and uncertainty:

Although climate models are constantly being improved, they are not good enough to predict future climate conditions with a degree of confidence which would allow precise adaptation decisions to be made. Outputs from different climate models often differ, presenting a range of possible climate futures to consider, and ultimately a wide range of possible actions to take. In Aware, climate projections are described as having potentially higher degree of uncertainty when less than 14 out of 16 GCMs agree on the direction and / or a pre-defined magnitude of change.

Even with improvements in climate modelling, uncertainties will remain. It is likely that not all the climate statistics of relevance to the design, planning and operations of a project's assets and infrastructure will be available from climate model outputs. The outputs are typically provided as long-term averages, e.g. changes in average monthly mean temperature or precipitation. However, decisions on asset integrity and safety may be based on short-term statistics or extreme values, such as the maximum expected 10 minute wind speed, or the 1-in-10 year rainfall event. In such cases, project designers or engineers should be working to identify climate-related thresholds for the project (see "Critical thresholds" section below) and evaluate whether existing climate trends are threatening to exceed them on an unacceptably frequent basis. Climate models can then be used to make sensible assumptions on potential changes to climate variables of relevance to the project or to obtain estimates of upper and lower bounds for the future which can be used to test the robustness of adaptation options.

**The key objective in the face of uncertainty** is therefore to define and implement design changes (adaptation options) which both provide a benefit in the current climate as well as resilience to the range of potential changes in future climate.

### Critical thresholds:



**The relationship between a critical threshold and a climate change related success criterion for a project.** [Source: Willows, R.I. and Connell, R.K. (Eds.) (2003). *Climate adaptation: Risk, uncertainty and decision-making*. UKCIP Technical Report, UKCIP, Oxford].

A key issue to consider when assessing and prioritising climate change risks is the critical thresholds or sensitivities for the operational, environmental and social performance of a project. Critical thresholds are the boundaries between 'tolerable' and 'intolerable' levels of risk. In the diagram above, it can be seen how acceptable breaches in a critical threshold in today's climate may become more frequent and unacceptable in a future climate.

Climate change scenarios can be used to see if these thresholds are more likely to be exceeded in the future. The simplest example is the height of a flood defence. When water heights are above this threshold, the site will flood. The flood defence height is the horizontal line labelled 'critical threshold'. Looking at the climate trend (in this case it would be sea level or the height of a river) – shown by the blue jagged line – it can be seen that the blue line has a gradual upward trend because of climate change. This means that the critical threshold is crossed more often in the future – because sea levels are rising and winter river flows may be getting larger. So, to cope with this change, adaptation is needed – in this case, one adaptation measure is to increase the height

of the flood defence.

### Further reading:

	Report detailing changes in global climate: <b>The Global Climate 2001 - 2010 (PDF)</b>
	IPCC report on climate-related disasters and opportunities for managing risks: <b>Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)</b>
	IPCC report on impacts, adaptation and vulnerability: <b>Working Group II Report "Impacts, Adaptation and Vulnerability"</b>
	IFC report on climate-related risks material to financial institutions: <b>Climate Risk and Financial Institutions. Challenges and Opportunities.</b>

### Aware data resolution:

The proprietary Aware data set operates at a resolution of 0.5 x 0.5 decimal degrees (approximately 50 km x 50 km at the equator). These proprietary data represent millions of global data points, compiled from environmental data and the latest scientific information on current climate / weather related hazards together with potential changes in the future. Future risk outcomes are based on projections data from the near- to mid-term time horizons (2020s or 2050s, depending on the hazard and its data availability).

Global climate model output, from the World Climate Research Programme's (WCRP's) Coupled Model Intercomparison Project phase 3 (CMIP3) multi-model dataset (Meehl et al., 2007), were downscaled to a 0.5 degree grid.

[Meehl, G. A., C. Covey, T. Delworth, M. Latif, B. McAvaney, J. F. B. Mitchell, R. J. Stouffer, and K. E. Taylor: The WCRP CMIP3 multi-model dataset: A new era in climate change research, Bulletin of the American Meteorological Society, 88, 1383-1394, 2007]

### Aware data application:

In some instances Risk Topic ratings are only based on Aware data, including:

- Flood
- Permafrost
- Landslides

### Country level risk ratings:

These are generated from the data points within a country's borders. For single locations, site-specific data are used, and for multiple locations or countries, composite data across the portfolio of locations are used.

### Glossary of terms used in report

"Climate model projections agree": defined as more than 14 out of 16 GCMs agreeing on the magnitude (e.g. temperature warming of 2 °C) and / or direction of change (e.g. seasonal precipitation).

"Climate model projections do not agree": defined as 14 or fewer out of 16 GCMs agreeing on the magnitude (e.g. temperature warming of 2 °C) and / or direction of change (e.g. seasonal precipitation).

"Significant proportion": defined as at least 25% of locations when multiple locations are selected.

"Large proportion": defined as at least 75% of locations when multiple locations are selected.



The above thresholds are used as a means of providing a project-wide risk score where a project may be spread across multiple locations. This requires more than one individual location to be at risk to begin signifying whether there is a risk at the overall project level. However, it is always recommended that individual locations are analysed separately for more accurate, site-specific risk screening. The overall risk score for the project (high, medium or low) is based on a count of high risk topic scores. A project scores overall high risk if greater than or equal to 3 individual risk topics score high. A project scores overall medium risk if between 1 and 2 individual risk topics score high. A project scores overall low risk if none of the individual risk topics score high.

---

**DISCLAIMER:**

The Content in Aware and its output report is provided on an “as is” and an “as available” basis and without warranties of any kind either expressed or implied. To the fullest extent permissible pursuant to applicable law, Acclimatise disclaims all warranties, express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Acclimatise does not warrant that the functions contained in the Content will be uninterrupted or error-free and does not accept any responsibility for any mistakes, errors or other deficiencies in the Content and disclaims all liability in respect of your use of the Content to the fullest extent possible in each and every applicable jurisdiction.

Neither Acclimatise nor any third party content providers shall be liable for any errors, inaccuracies or delays in content, or for any actions taken in reliance thereon. The Content is for general information purposes only. The Content is provided by Acclimatise and from sources which Acclimatise believes to be reliable and whilst every endeavour is made to keep the information up-to-date, complete and correct, no representations or warranties are made of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the Content. Any reliance you place on such information is therefore strictly at your own risk.

The Content does not provide any form of advice (investment, tax, legal) amounting to investment advice, or make any recommendations regarding particular financial instruments, investments or products. Acclimatise will not be liable for any loss or damage caused by a reader's reliance on information obtained in our Content. Users are solely responsible for their own investment decisions. Acclimatise's opinions and analyses are based on sources believed to be reliable and are written in good faith, but no representation or warranty, expressed or implied, is made as to their accuracy or completeness. Acclimatise is not authorised for the conduct of investment business (as defined in the UK's Financial Services and Markets Act 2000) and the Content provided in our services and products are not intended as, and shall not constitute, investment advice.

## SCHEDULE 6: UNDERTAKINGS - AS DISPLAYED IN THE FRAMEWORK FINANCING AGREEMENT

Para No.	Description	Remarks/Issues	Type
1	<p>Georgia will: (i) ensure timely implementation of the Investment Program, including executing the implementation arrangements set out in Schedule 3 (Implementation Framework) to this FFA and monitoring and evaluating implementation based on the Design and Monitoring Framework set out in Schedule 2 to this FFA; (ii) ensure that all projects financed under the Facility are selected and approved in accordance with the criteria and procedure set out in Schedule 4 to this FFA; (iii) ensure that all projects financed under the Facility are developed, implemented and maintained in accordance with the safeguard requirements set out in Schedule 5 to this FFA.</p> <p>Schedule 2: Design and Monitoring Framework - MFF</p> <p>Schedule 3: Implementation Framework</p> <p>Schedule 4: Selection Criteria and Approval Process for Projects</p> <p>Schedule 5: Environmental and Social Safeguards</p>	<p>Implementation of Urban Service Improvement Investment Program is ongoing and is carried out according to FFA.</p> <p>Projects are being monitored and evaluated based on DMF set out in Schedule 2. UWSCG has engaged a consultant for baseline surveys and monitoring performance.</p> <p>Implementation arrangements are as per Schedule 3 to the FFA</p> <p>All projects are selected and approved in accordance with the criteria and procedure set out in Schedule 4 to the FFA</p> <p>All projects are implemented and maintained in accordance with the safeguard requirements set out in Schedule 5 to the FFA. All procedures are carried out in</p>	

Para No.	Description	Remarks/Issues	Type
		accordance with all applicable laws and regulations of the Borrower, ADB's Safeguard Policy Statement (2009), the EARF, the IEE and the EMP.	
2	Georgia will ensure that: (i) financial, technical and human resources necessary for implementation of the Investment Program are provided on a timely basis throughout the implementation period; and (ii) adequate funds are allocated for the maintenance of the infrastructure built and items procured under the Investment Program.	Confirmed that all necessary financial technical and human resources are provided for implementation  The management consultancy contractor has prepared asset maintenance plan and UWSCG has allocated adequate funds for maintenance of the infrastructure built in Mestia and Anaklia. Also, the government has supported UWSCG through viability gap funding to ensure sustainability of the assets through proper operation and maintenance.	Counterpart Funding and Resources
3	Georgia will ensure that the Investment Program is carried out in accordance with applicable standards and international best practice for design, technical specifications, construction supervision, quality control and project management.	Ensured. UWSCG hired supervision consultancy in order to ensure that the Investment Program is carried out in accordance with applicable standards and international best practice for above mentioned.	Construction Quality
4	Georgia will ensure that: (i) ADB is kept informed of Georgia's policies and programs for the WSS sector that will materially affect the economic viability of each project and subproject financed under the Facility; and (ii) best	There are no changes in Georgia's policies and programs for the WSS sector that will materially affect the economic viability of each project	Sector Development

Para No.	Description	Remarks/Issues	Type
	efforts are used to sustain and strengthen the WSS sector.	and subproject financed under the Facility;  For sustainability and strengthening of the WSS sector, it is proposed to engage consultants for regulatory reforms process. UWSCG has entered into a management consultancy contract with a renowned water operator to improve its performance.	
5	Georgia will cause GNEWSRC to strengthen its regulatory function, including tariff setting, and monitoring and enforcing quality of service delivered by service providers.	Ongoing. To be supported by particular activities under Component 2 of the program that target strengthening regulatory function of GNEWSRC, including tariff setting and regulation of service standards of service providers.	Sector Development
6	Georgia will cause UWSCG to strengthen its financial management through: (i) adoption of a 3-year business plan by the end of 2014 to improve services, enhance revenue and reduce system loss; and (ii) achieve financial sustainability through attainment of an operating ratio (i.e. the ratio of expenditure over revenue) of 1 by the end of 2019.	UWSCG submitted business plan in December 2014 .	Sector Development
7	Georgia will cause UWSCG to improve its service delivery and revenue collection through attainment of an aggregate 90% revenue collection rate per annum from all domestic consumers and non-domestic consumers by the end of	In progress.	Sector Development

Para No.	Description	Remarks/Issues	Type
	2019.		
8	Georgia will cause UWSCG to improve its management of WSS assets through the establishment and implementation of the geospatial WSS management system by the end of 2013.	<p>GIS mapping for 6 towns covered under the Investment Program was completed in May 2011.</p> <p>The remaining towns under UWSCG coverage to be included in the Geospatial WSS management system after GIS mapping of WSS systems (Financing of GIS mapping is considered from ongoing Tranche 3).</p>	Sector Development
9	Georgia will ensure that ADB's consent is obtained at least 3 months prior to the implementation of any of the following: (i) any change in the ownership or control of UWSCG or any asset, facility or structure rehabilitated, procured or constructed under the Investment Program; or (ii) any revision of the UWSCG charter, or any change to UWSCG's authority or functions, that may affect implementation of the Investment Program. Georgia will ensure that any such change is carried out in accordance with all applicable laws and regulations of Georgia.	From December 5, 2012 November 2014 and June 2015 Management of UWSCG has been changed several times in accordance with applicable laws and regulations, but that has not affected implementation of the Investment Program.	Sector Development
10	Georgia will ensure that UWSCG is issued licenses or permits for water abstraction activities by the end of 2011. Georgia will cause UWSCG to ensure that water intake facilities under the Investment Program shall not be commissioned and made operational until it has been issued licenses or permits for water abstraction activities for these facilities.	<p>For projects already completed (e.g. Mestia and Anaklia), permits for water abstraction have been obtained.</p> <p>For planned and future projects the abstraction permits will be obtained</p>	Environmental Protection

Para No.	Description	Remarks/Issues	Type
		before commissioning of water intake facilities.	
11	Georgia will cause UWSCG to make best efforts to meet the legal requirements for domestic effluent discharge, bearing in mind the affordability constraints. This includes compliance of UWSCG with the legal requirements for domestic effluent discharge in relation to sewage treatment facilities financed under the Investment Program by the end of 2019.	In progress	Environmental Protection
12	Georgia will follow ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB, consistent with its commitment to good governance, accountability and transparency, reserves the right to undertake directly, or through its agents, investigation of any alleged corrupt, fraudulent, collusive or coercive practices related to the Investment Program and cooperate with such investigation and extend all necessary assistance, including access to all Investment Program-relevant books and records, and engaging independent experts who may be needed for satisfactory completion of such investigations. All contracts financed by ADB under the Investment Program will include provisions specifying the right of ADB to audit and examine the Investment Program-related records and accounts of the MRDI and UWSCG and all contractors, suppliers, consultants, and other service providers as they relate to the Investment Program.	<p>ADB's Anticorruption Policy is being followed and all procurement activities are being carried out transparently and according to ADB's guidelines.</p> <p>There are no any major instances of alleged corrupt, fraudulent, collusive or coercive practices reported during implementation of the Investment Program, except an investigation conducted by OAI under advance actions taken by the Borrower to appoint detailed engineering design consultants, where the Borrower and UWSCG cooperated with and the matter was resolved.</p> <p>All contracts signed followed the ADB standard templates without any material deviation, and prior review has been conducted in consultation with OGC and OSFMD. The</p>	Good Governance and Anticorruption

Para No.	Description	Remarks/Issues	Type
		contracts include the necessary provisions specifying the right of ADB to audit and examine the related records and accounts.	



**PROJECT SPECIFIC COVENANTS - AS DISPLAYED IN LEGAL AGREEMENTS – Loan 2807 (T2)**

<b>Schedule</b>	<b>Para No.</b>	<b>Description</b>	<b>Remarks/Issues</b>	<b>Type</b>
5	1	The Borrower and UWSCG shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement and/or the Project Agreement, the provisions of this Loan Agreement and/or the Project Agreement shall prevail.	Project is implemented in accordance with the detailed arrangements set forth in the PAM, which are being updated for any subsequent changes during review missions and become effective after joint agreement, as recorded in the aide memoire and approved by ADB.	Others
5	2	The Borrower shall ensure that: (a) financial, technical and human resources necessary for implementation of the Project are provided on a timely basis throughout the implementation period; and (b) adequate funds are allocated for the maintenance of the infrastructure built and items procured under Project.	Confirmed that all necessary financial technical and human resources are provided for implementation  The management consultancy contractor has prepared asset maintenance plan and UWSCG has allocated adequate funds for maintenance of the infrastructure built in Mestia and Anaklia. Also, the government has supported UWSCG through viability gap funding to ensure sustainability of the assets through proper operation and maintenance.	Others
5	3	The Borrower shall ensure that the Project is carried out in accordance with applicable standards and international best practice for design, technical specifications, construction	Project is designed by well-known international consultant in accordance with applicable standards and international best	Others

		supervision, quality control and project management.	practice and technical specifications. Construction supervision, quality control and project management is carried out through international Project Management Consultant (PMC) appointed under the Project apart from UWSCG's own construction supervision staff.	
5	4	The Borrower shall cause UWSCG to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the IEE and EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report.	Have been ensured.	Safeguards
5	5	<p>The Borrower shall cause UWSCG to ensure that (a) all land and all rights-of-way required for the Project and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract; and (b) the Project does not require any land acquisition or resettlement activities within the meaning of the SPS.</p> <p>If there is such an impact, the Borrower shall cause UWSCG to ensure that such land acquisition and resettlement</p>	<p>All land parcels have been handed over as per schedule, which has not resulted in any delays in the project implementation.</p> <p>State-owned parcel of land identified for Anaklia STP (REG-02), which has been registered under UWSCG.</p> <p>There was no land acquisition involved in the project, however, some minor impact during construction (in MES-02 contract)</p>	Safeguards

		activities are implemented in accordance with (i) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (ii) the Involuntary Resettlement Safeguards; and (iii) the RF.	<p>were mitigated through a LARP implementation in accordance with RF, which was prepared in accordance with all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement, and approved by ADB on 3 November 2014.</p> <p>LARP was prepared within the framework of MES-02 project and Compliance report currently is under preparation.</p>	
4	5	The Borrower Shall not award any Works contract which involves environmental impacts until: (a) the IEE, as incorporated in the relevant environmental compliance safeguards documents, has been approved by the appropriate authority of the Borrower: and (b) the Borrower has incorporated relevant provisions from the EMP into the Works contract.	<p>Has been ensured for Mestia and Anaklia.</p> <p>Anaklia (ANA-01) and Mestia (MES-02) IEEs posted at ADB website in June 2011.</p> <p>EMPs are incorporated into the Works Contract.</p>	Safeguards
5	6	The Borrower shall cause UWSCG to do the following: (a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (b) if any unanticipated environmental impacts arise during construction, implementation or operation of the Project that were not considered in the IEE or the EMP, promptly inform	Semi-annual Environmental Monitoring Reports are submitted to ADB on time and relevant information from EMRs are disclosed to APs.	Safeguards

		ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any actual or potential breach of Compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.		
3	6	Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Works subject to a maximum amount equivalent to 20% of the Loan amount.	Ensured.	Financials
3	7	Notwithstanding any other provision of this Loan Agreement, no withdrawal shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of, the Borrower, MRDI and UWSCG, and is legally binding upon the parties thereto in accordance with its terms.	Ensured.	Financials
5	7	The Borrower shall cause UWSCG to ensure that the Project does not cause any impact on indigenous peoples Within the meaning of the SPS. If there is such an impact, the Borrower shall cause UWSCG to prepare, disclose and	No issues so far.	Safeguards

		implement an indigenous peoples plan in accordance with all applicable laws and regulations of the Borrower relating to indigenous peoples and the SPS.		
5	8	The Borrower shall cause UWSCG to make available necessary budgetary and human resources to fully implement the EMP.	The EMPs are part of the construction contracts and implemented satisfactorily, for which UWSCG has necessary budgetary and human resources.	Safeguards
5	9	The Borrower shall cause UWSCG to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the IEE and the EMP, and any corrective or preventative actions set out in a Safeguards Monitoring Report; (b) make available a budget for all such environmental measures; (c) provide UWSCG with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not Considered in the IEE or the EMP; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	<p>(a) All the bidding documents and contracts complied with the measures and requirements relevant to the contractor set forth in the IEE and the EMP, and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) Budget for all such environmental measures has been made available.</p> <p>(c) No unanticipated environmental risks or Impacts have been received during construction.</p> <p>(d) Detailed records including photographs for condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction are being kept.</p>	Safeguards

			(e) The contractors are required to fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction. The post-construction audit reports were submitted for Anaklia and Mestia, where the works have been completed.	
5	10	The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	Ensured	Safeguards
5	11	The Borrower shall cause UWSCG to ensure monitoring of the social impacts throughout the implementation of the Project in consultation with local governments, local communities and nongovernment organizations. UWSCG shall ensure that all civil works contractors: (a) comply With all applicable labor laws of the Borrower; (b) use their best efforts to employ women and local people, including disadvantaged people, living in the vicinity of the Project; (c) disseminate Information at worksites on health safety (including HIV prevention programs) for those employed during construction; (d) maintain equal pay to men and women for work of equal type; (e) provide safe working conditions and appropriate facilities for male and female workers; and (f) abstain from child labor.	All the requirements are included in the contracts and UWSCG ensured and monitored implementation of the same.	Sector
5	12	The Borrower shall cause UWSCG to: (a) ensure that the gender action plan	Implementation of GAP is in progress.	Others

		prepared for the Investment Program is implemented in a timely manner Over the Investment Program period; and (b) submit semiannual reports to ADB.	The Gender Annual Report was submitted to ADB on 5 September 2014 for review and comments.	
5	13	The Borrower and UWSCG shall: (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation. This includes ensuring that anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right to ADB to audit and examine the records and accounts of the Project Executing Agency and implementing agencies and all contractors, suppliers, consultants and other service providers as they relate to the Project.	<p>ADB's Anticorruption Policy is being followed and all procurement activities are being carried out transparently and according to ADB's guidelines.</p> <p>There are no any major instances of alleged corrupt, fraudulent, collusive or coercive practices reported during implementation of the project.</p> <p>All contracts signed followed the ADB standard templates without any material deviation and prior review has been conducted in consultation with OGC and OSFMD. The contracts include the necessary provisions specifying the right of ADB to audit and examine the related records and accounts</p>	Others
PA		Section 2.08 (a) UWSCG shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the items of expenditure financed out of such proceeds; (iii) the Project; (iv) the	UWSCG is submitting semi-annual reports to ADB as requested. Report includes all above mentioned information. The latest submission of Semi-Annual Reports was in February 2015. Reports are updated as for July - December 2014.	Sector

		<p>administration, operations and financial condition of UWSCG; and (v) any other matters relating to the purposes of the Loan. (b) Without limiting the generality of the foregoing , UWSCG shall furnish to</p> <p>ADB semiannual reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the period under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following period. (c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose,UWSCG shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by UWSCG of its obligations under this Project Agreement and the accomplishment of the purposes of the Loan.</p>		
LA		Fielding of Consultants	Tranche 2 does not include consultancy services.	Others



LA	<p>Section 4.03</p> <p>(a) The Borrower shall: (i) maintain, or cause to be maintained, separate accounts for the Project; (ii) have such accounts and related financial statements audited annually, in accordance with appropriate auditing standards consistently applied, by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB; (iii) furnish to ADB, as soon as available but in any event not later than 9 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto (including the auditors' opinion on the use of the Loan proceeds), all in the English language; and (iv) furnish to ADB such other information concerning such accounts and financial statements and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) The Borrower shall enable ADB, upon ADB's request, to discuss the Borrower's financial statements for the Project and its financial affairs related to the Project from time to time with the auditors appointed by the Borrower pursuant to subsection (a) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Borrower unless the Borrower shall otherwise agree.</p>	<p>Records and accounts have been maintained.</p> <p>Loan Agreement for Tranche 2 has been signed in 1 December 2011 and no transactions have been made in 2011, no Audit opinion for FY 2011 for L2807-GEO issued accordingly.</p> <p>Audit Report for FY 2012 was submitted by Auditor on 24 September 2013 and has been sent to ADB on 30 September 2013.</p> <p>Scanned copy of the Final Audit Report for FY 2013 has been sent to ADB on 16 September 2014.</p> <p>Audit for 2014 FY is signed and is ongoing.</p>	Financials
----	---	--	------------

	LA	Section 5.01 A date 30 days after the date of this Loan Agreement is specified for the effectiveness of the Loan Agreement for the purposes of Section 9.04 of the Loan Regulations.	Loan made effective on 19 December 2011.	Others

**PROJECT SPECIFIC COVENANTS - AS DISPLAYED IN LEGAL AGREEMENTS (Loan 3078) – T3**

<b>Schedule</b>	<b>Para No.</b>	<b>Description</b>	<b>Remarks/Issues</b>	<b>Type</b>
3	6	Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Goods, Works and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount.	Ensured.	Financials
3	7	Notwithstanding any other provision of this Loan Agreement, no withdrawal shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of, the Borrower, MRDI and UWSCG, and is legally binding upon the parties thereto in accordance with its terms.	Ensured.	Financials
4	5	The Borrower shall cause UWSCG not to award any Works contract for the Project which involves environmental impacts until UWSCG has:  (a) obtained the final approval of the applicable IEE from the appropriate authority of the Borrower; and (b) incorporated the relevant provisions from the applicable EMP into the Works contract.	Ensured.	Safeguards
4	6	The Borrower shall cause UWSCG not to award any Works contract involving involuntary resettlement impacts until UWSCG has prepared and submitted to ADB the final LARP based on the Project's detailed design, and obtained ADB's clearance of such LARP.	Ensured.	Safeguards
4	12	In the case of a contract of Goods or Works, which	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		is subject to ADB's prior review, the Borrower shall cause UWSCG to seek ADB's prior approval of any modification or waiver of the terms and conditions of the contract, including: (a) granting an extension of the stipulated time for completion of a contract for a period of 1 month or more, or which is likely to require an extension of the Loan Closing Date; and (b) increases in aggregate of the original price by more than 5% (for the avoidance of doubt, such increase shall take into account any previous change under such contract).		
4	13	In the case of a contract for Goods or Works, which is subject to ADB's post review, ADB shall review the required contract modification or waiver and respond to the Borrower as soon as practicable, but not later than 1 month after the receipt of the required document.	No Issues so far.	Others
4	14	The Borrower shall cause UWSCG to provide to ADB copies of all time extensions, modifications or waivers to the contracts (including charge orders) within 1 month following amendment of the contract.	Ensured.	Others
5	1	Implementation Arrangements  The Borrower and UWSCG shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement and/or the Project Agreement, the provisions of this Loan	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		Agreement and/or the Project Agreement shall prevail.		
5	2	Counterpart Funding and Resources  The Borrower shall ensure that: (a) financial, technical and human resources necessary for the implementation of the Project are provided on a timely basis throughout the implementation period; and (b) adequate funds are allocated for the maintenance of the infrastructure built and items procured under the Project.	Ensured	Financials
5	3	Construction Quality  The Borrower shall ensure that the Project is carried out in accordance with applicable standards and international best practice for design, technical specifications, construction supervision, quality control and project management.	Implementation of construction projects under ongoing tranches are implementing in accordance with applicable standards and international best practice.	Others
5	4	Sector Development  The Borrower shall ensure that: (a) ADB is kept informed of the Borrower's policies and programs for the WSS sector that will materially affect the economic viability of the Project; and (b) best efforts are used to sustain and strengthen the WSS sector.	No issues so far.	Sector
5	5	The Borrower shall take steps to strengthen GNEWSRC's regulatory function, including tariff setting and regulation of service standards of service providers.	To be supported by particular activities under Component 2 of the Tranche 1 that target strengthening regulatory function of GNEWSRC, including tariff setting and regulation of service standards of service providers	Sector

Schedule	Para No.	Description	Remarks/Issues	Type
5	6	The Borrower shall cause UWSCG to strengthen its financial management through: (a) adoption of a 3-year business plan by the end of 2014 to improve services, enhance revenue and reduce system loss; and (b) achievement of financial stability through attainment of an operating ratio (i.e., the ratio of expenditure over revenue) of 1 by the end of 2019.	Business Plan is submitted to ADB.	Sector
5	7	Until such time as tariff increases or other sources of income make it possible for UWSCG to meet the operating ratio defined in paragraph 6, the Borrower shall provide the funds necessary to meet the operating ratio for the years the operating ratio is not met.	No issues so far.	Sector
5	8	The Borrower shall cause UWSCG to improve its service delivery and revenue collection through attainment of an aggregate 95% revenue collection rate per annum from all domestic consumers and non-domestic consumers by the end of 2019.	In progress.	Sector
5	9	The Borrower shall ensure that ADB's consent is obtained at least 3 months prior to the implementation of any of the following: (a) any change in the ownership or control of UWSCG or any asset, facility or structure rehabilitated, procured or constructed under the Project; or (b) any change to UWSCG's authority or functions, that may affect implementation of the Project. The Borrower shall ensure that any such change is	No issues so far.	Sector

Schedule	Para No.	Description	Remarks/Issues	Type
		carried out in accordance with all applicable laws and regulations of the Borrower.		
5	10	<p>Environment</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	Preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEEs and EMPs.	Safeguards
5	11	<p>Land Acquisition and Involuntary Resettlement</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that all land and all rights-of-way required for the Project and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the LARF; and (d) all measures and requirements set forth in the LARP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	<p>Ensured.</p> <p>Land acquisition and resettlement activities were implemented in compliance with all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement.</p> <p>LARP for Ure-01 project was approved by ADB on 13 November, 2013. Compliance Report was prepared and no-objection was received from ADB in 5 May, 2015.</p>	Safeguards

Schedule	Para No.	Description	Remarks/Issues	Type
5	12	Without limiting the application of the Involuntary Resettlement Safeguards, the LARF or the LARP, the Borrower shall ensure, and shall cause UWSCG to ensure, that no physical or economic displacement takes place in connection with the Project until: (a) the final updated LARP is approved by ADB and disclosed to affected people prior to possession of the land; and (b) compensation and other entitlements have been provided to affected people in accordance with the LARP.	Ensured.	Safeguards
5	13	Indigenous Peoples  The Borrower shall ensure, and shall cause UWSCG to ensure, that the Project does not have any indigenous peoples impact within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall, and shall cause UWSCG to, take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to indigenous peoples and the SPS.	Ensured	Safeguards
5	14	Human and Financial Resources to Implement Safeguards Requirements  The Borrower shall, and shall cause UWSCG to, make available necessary budgetary and human resources to fully implement the EMP and the LARP.	Ensured.	Safeguards
5	15	Safeguards – Related Provisions in Bidding Documents and Works Contracts  The Borrower shall ensure, and cause UWSCG to	All bidding documents and contracts for Works contain provisions that require contractors to: comply with the measures and requirements	Safeguards



Schedule	Para No.	Description	Remarks/Issues	Type
		<p>ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the applicable IEE, the applicable EMP and the LARP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide UWSCG with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the applicable IEE, the applicable EMP or the LARP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>relevant to the contractor set forth in the applicable IEE, the applicable EMP and the LARP make available a budget for all such environmental and social measures; provide UWSCG with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the applicable IEE, the applicable EMP or the LARP, and fully reinstate pathways, other local infrastructure to its pre-project condition upon the completion of construction.</p> <p>Compliance is ensured through monitoring reports and visits of safeguards specialist.</p>	
5	16	<p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall, and shall cause UWSCG to, do the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB within 1 month of the end of each</p>	<p>Agreed</p> <p>Semi-annual Safeguard Monitoring Reports is submitted to ADB within 1 month of the end of the calendar year and relevant information from such reports is disclosed to APs promptly</p>	Safeguards

Schedule	Para No.	Description	Remarks/Issues	Type
		half of the calendar year and disclose relevant information from such reports to affected people promptly upon submission; (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the applicable IEE, the applicable EMP or the LARP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the LARP promptly after becoming aware of the breach.	upon submission of EMRs.	
5	17	Prohibited List of Investments  The Borrower shall ensure, and shall cause UWSCG to ensure, that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	Ensured.	Safeguards
5	18	Labor Standards and Health  The Borrower shall ensure, and shall cause UWSCG to ensure, monitoring of the social impacts throughout the implementation of the Project in consultation with local governments, local communities and nongovernment organizations. UWSCG shall ensure that all civil works contractors: (a) comply with all applicable labor laws of the Borrower; (b) use their best efforts to employ women and local people, including disadvantaged people, living in the vicinity of the	Ensured,	Social

Schedule	Para No.	Description	Remarks/Issues	Type
		Project; (c) disseminate information at worksites on health safety (including HIV prevention programs) for those employed during construction; (d) maintain equal pay to men and women for work of equal type; (e) provide safe working conditions and appropriate facilities for male and female workers; and (f) abstain from child labor.		
5	19	<p>Gender and Development</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that: (a) Project Gender Action Plan (GAP) is fully implemented and monitored in a timely manner in accordance with its terms, related regulations of the Borrower and ADB's Policy on Gender and Development (1998) and adequate resources are allocated for this purpose; (b) bidding documents include provisions as specified in the GAP, including equal pay to men and women for same type of work and enabling working conditions for female workers; (c) progress in achieving the GAP targets are reflected in the Project progress reports and Project completion report; (d) targets under the GAP are achieved including, but not limited to (i) by 2017, UWSCG establishes a service center with a customer care unit staffed by at least 30% women that informs, educates, and communicates on water, hygiene and sanitation; (ii) at both the commencement and completion of Project implementation, a survey is conducted in Project locations on households' access to water integrating gender and poverty dimensions; (iii) each year during Project implementation, UWSCG prepares a yearly report on human resource development which includes</p>	<p>Implementation of GAP is in progress.</p> <p>The Gender Annual Report was submitted to ADB on 5 September 2014 for review and comments.</p>	Social

Schedule	Para No.	Description	Remarks/Issues	Type
		gender analysis; and (iv) material steps are taken to encourage female enrollment in the Project subcomponent noted in item (ii) of subparagraph 2(d) of Schedule 1 to this Loan Agreement.		
5	20	Governance and Anticorruption  The Borrower and UWSCG shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.	Ensured.	Others
5	21	The Borrower and UWSCG shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants and other service providers as they relate to the Project.	Ensured.	Others
5	22	The Borrower shall cause UWSCG to disclose on its website information on (a) bidding procedures, bidders and contract awards; (b) the use of funds disbursed under the Project; (c) the physical progress of the Project; and (d) other relevant Project related information.	Ensured.	Others
LA		Section 4.02  The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
LA		Section 4.03  ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on such financial statements within 30 days of the date of their receipt by posting them on ADB's website.	No issues so far	Financials
LA		Section 4.04  The Borrower shall take all actions which shall be necessary on its part to enable UWSCG to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.	Ensured.	Others
LA		Section 4.05  (a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan. (b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended or waived without the prior concurrence of ADB.	Ensured.	Others
LA		Section 5.01  A date 60 days after the date of this Loan Agreement is specified for the effectiveness of the Loan Agreement for the purposes of Section 9.04 of the Loan Regulations.	Loan made effective on 17 March 2014.	Others
PA		Section 2.06 UWSCG shall maintain, or cause to be maintained, records and accounts adequate to identify the items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the	Adequate records and accounts will be maintained.	Financials

Schedule	Para No.	Description	Remarks/Issues	Type
		Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, its operations and financial condition.		

Schedule	Para No.	Description	Remarks/Issues	Type
PA		<p>Section 2.08</p> <p>(a) UWSCG shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the items of expenditure financed out of such proceeds; (iii) the Project; (iv) the administration, operations and financial condition of UWSCG; and (v) any other matters relating to the purposes of the Loan.</p> <p>(b) Without limiting the generality of the foregoing, UWSCG shall furnish to ADB semiannual reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the period under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following period.</p> <p>(c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose, UWSCG shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by UWSCG of its obligations under this Project Agreement and the accomplishment of the purposes of the Loan.</p>	<p>UWSCG is submitting semi-annual reports to ADB as requested. Report includes all above mentioned information.</p> <p>The latest submission of Semi-Annual Reports was in July 2015.</p>	Others
PA		Section 2.09	(i) Ensured	

Schedule	Para No.	Description	Remarks/Issues	Type
		<p>(a) UWSCG shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements for the Project audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements, use of the Loan proceeds and compliance with the financial covenants of the Loan Agreement) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.</p> <p>(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, UWSCG shall (i) provide its annual financial statements prepared in accordance with</p>		



Schedule	Para No.	Description	Remarks/Issues	Type
		<p>national accrual-based financing reporting standards acceptable to ADB; (ii) have its financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; and</p> <p>(iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(d) UWSCG shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and UWSCG and its financial affairs where they relate to the Project with the auditors appointed by UWSCG pursuant to subsections (a)(iii) and (c) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of UWSCG, unless UWSCG shall otherwise agree.</p>		

## PROJECT SPECIFIC COVENANTS - AS DISPLAYED IN LEGAL AGREEMENTS (Loan 3238) – T4

Schedule	Para No.	Description	Remarks/Issues	Type
3	6	Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Goods, Works and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount.	Not Applicable.	Financials
3	7	Notwithstanding any other provision of this Loan Agreement, no withdrawals shall be made from the Loan Account until the Subsidiary Loan Agreement, in form and substance satisfactory to ADB, has been duly authorized and executed and delivered on behalf of the Borrower, MRDI and UWSCG, and is legally binding upon such parties in accordance with its terms.	Not Applicable.	Financials
4	5	The Borrower shall cause UWSCG not to award any Works contract for the Project which involves environmental impacts until UWSCG has: (a) obtained the final approval of the applicable IEE from the appropriate authority of the Borrower; and (b) incorporated the relevant provisions from the applicable EMP into the Works contract.	Have been ensured. IEEs for Zugdidi (Improvement of Water Supply System) and Poti (Improvement of Wastewater System) Sub-Projects have been prepared and approved in August 2014.  EMPs are incorporated into the Works Contract.	Safeguards
4	11	Contracts procured under international competitive bidding procedures and contracts for Consulting Services shall be subject to prior review by ADB, unless otherwise agreed between the Borrower and ADB and set forth in the Procurement Plan.	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
4	12	<p>In the case of a contract for Goods or Works, which is subject to ADB's prior review, the Borrower shall cause UWSCG to seek ADB's prior approval of any modification or waiver of the terms and conditions of the contract, including:</p> <p>(a) granting an extension of the stipulated time for completion of a contract for a period of 1 month or more, or which is likely to require an extension of the Loan Closing Date; and</p> <p>(b) increases in aggregate of the original price by more than 5% (for the avoidance of doubt, such increase shall take into account any previous change under such contract).</p>	Ensured.	Others
4	13	In the case of a contract for Goods or Works, which is subject to ADB's post review, ADB shall review the required contract modification or waiver and respond to the Borrower as soon as practicable, but not later than 1 month after the receipt of the required document.	No issues so far.	Others
4	14	The Borrower shall cause UWSCG to provide to ADB copies of all time extensions, modifications or waivers to the contracts (including change orders) within 1 month following amendment of the contract.	Ensured.	Others
5	1	Implementation Arrangements	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		The Borrower and UWSCG shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan Agreement and/or the Project Agreement, the provisions of this Loan Agreement and/or the Project Agreement shall prevail.		
5	2	<p>Counterpart Funding and Resources</p> <p>The Borrower shall ensure that: (a) financial, technical and human resources necessary for the implementation of the Project are provided on a timely basis throughout the implementation period; and (b) adequate funds are allocated for the maintenance of the infrastructure built and items procured under the Project. Without limiting the generality of the foregoing, if the Project experiences cost overruns in excess of the available Loan proceeds, the Borrower shall provide financial support to UWSCG towards any reasonable cost overruns in order to achieve the Project objective, unless otherwise agreed by the parties.</p>	Ensured.	Financials
5	3	<p>Construction Quality</p> <p>The Borrower shall ensure that the Project is carried out in accordance with applicable standards and international best practice for design, technical specifications, construction supervision, quality control and project management.</p>	In progress.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
5	4	<p>Sector Development</p> <p>The Borrower shall ensure that: (a) ADB is kept informed of the Borrower's policies and programs for the WSS sector that will materially affect the economic viability of the Project; and (b) best efforts are used to sustain and strengthen the WSS sector.</p>	Ensured.	Sector
5	5	The Borrower shall take steps to strengthen GNEWSRC's regulatory function, including tariff setting and regulation of service standards of service providers.	To be supported by particular activities under Component 2 of the Tranche 1 that target strengthening regulatory function of GNEWSRC, including tariff setting and regulation of service standards of service providers	Sector
5	6	The Borrower shall cause UWSCG to strengthen its financial management through adoption of a 3-year business plan by the end of 2014 to improve services, enhance revenue and reduce system loss. The foregoing shall be deemed a modification of the requirement set forth in (a) paragraph 6(i) of Schedule 6 of the FFA and (b) subparagraph 6(a) of Schedule 5 to the Loan Agreement between the Borrower and ADB dated 10 May 2011 for Project 1 of the Investment Program, in each case stipulating that such business plan be adopted by the end of 2013.	Business Plan is submitted to ADB.	Sector
5	7	The Borrower shall ensure that ADB's consent is obtained at least 3 months prior to the implementation of any of the following: (a) any change in the ownership or control of UWSCG or any asset, facility or structure rehabilitated, procured or constructed under the Project; or (b)	Ensured.	Sector

Schedule	Para No.	Description	Remarks/Issues	Type
		any change to UWSCG's authority or functions, that may affect implementation of the Project. The Borrower shall ensure that any such change is carried out in accordance with all applicable laws and regulations of the Borrower.		
5	8	<p>Financial Covenants</p> <p>The Borrower shall cause UWSCG to attain an operating ratio of 1 by the end of 2019, and shall continue to maintain it less than 1 thereafter, and in accordance with the provisions of the FFA. The business plan referred to in paragraph 6 above shall include annual targets, commencing from 2015, for progressively decreasing UWSCG's operating ratio in order to achieve an operating ratio of 1 by 2019 as set forth in the foregoing sentence. For purposes of this paragraph 8, "operating ratio" shall mean the ratio of UWSCG's operating expenses over its operating revenue, with "operating expenses" meaning all expenses of UWSCG on operation and maintenance including staff salaries, cost of energy, chemicals and consumables, routine maintenance, spare parts, consumables, etc. but excluding capital expenditure and debt service obligations. The "operating revenue" means the revenue collected by UWSCG from the sale of water and other revenues excluding grants from the government.</p>	UWSCG has submitted the Business Plan which is under discussion.	Financials
5	9	Until such time as tariff increases or other sources of income make it possible for UWSCG to meet the operating ratio defined in paragraph 8 above, the Borrower shall provide the funds necessary to meet the operating ratio of 1	The government provided sufficient funding to UWSCG in FY2012 and FY2013 to maintain its operating ratio of less than 1.	Financials

Schedule	Para No.	Description	Remarks/Issues	Type
		starting from the FY 2015.	UWSCG has not submitted their unaudited financial statements for FY2014, based on which UWSCG has maintained its operating ratio of 1 in FY 2014.	
5	10	The Borrower shall cause UWSCG to improve its service delivery, and revenue collection from all domestic consumers and non-domestic consumers through continued attainment of minimum 90% revenue collection rate per annum from the FY 2015, and of an aggregate 95% by the end of FY 2019.	In progress.	Financials
5	11	Environment  The Borrower shall ensure, and shall cause UWSCG to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Borrower ensures that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP	Safeguards
5	12	Land Acquisition and Involuntary Resettlement  The Borrower shall ensure, and shall cause UWSCG to ensure, that the Project does not have any involuntary resettlement impacts within the meaning of the SPS. In the event that the Project does have any such impact, the	In progress.	Safeguards

Schedule	Para No.	Description	Remarks/Issues	Type
		Borrower shall, and shall cause UWSCG to, take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to involuntary resettlement and the SPS. For the avoidance of doubt, any land made available by the Borrower, or caused to be made available by the Borrower, in accordance with Section 4.02 of this Loan Agreement shall be subject to the provisions of this paragraph 12.		
5	13	<p>Indigenous Peoples</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that the Project does not have any indigenous peoples impacts within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall, and shall cause UWSCG to, take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to indigenous peoples and the SPS.</p>	In progress.	Safeguards
5	14	<p>Human and Financial Resources to Implement Safeguards Requirements</p> <p>The Borrower shall, and shall cause UWSCG to, make available necessary budgetary and human resources to fully implement the EMP.</p>	The borrower will make available all human and financial resources to fully implement the EMP.	Safeguards
5	15	<p>Safeguards – Related Provisions in Bidding Documents and Works Contracts</p> <p>The Borrower shall ensure, and cause UWSCG to ensure, that all bidding documents and contracts for Works contain provisions that</p>	Borrower ensures that all bidding documents and contracts for Works contain provisions that require contractors to: a) comply with the measures and requirements relevant to the contractor set forth in	Safeguards



Schedule	Para No.	Description	Remarks/Issues	Type
		<p>require contractors to:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the applicable IEE and EMP, and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental measures;</p> <p>(c) provide UWSCG with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the applicable IEE or EMP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>the applicable IEE, the applicable EMP and the LARP</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide UWSCG with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the applicable IEE, the applicable EMP or the LARP;</p>	
5	16	<p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall, and shall cause UWSCG to, do the following:</p> <p>(a) submit semiannual Safeguards Monitoring Reports to ADB within 1 month of the end of each half of the calendar year and disclose</p>	Not Applicable.	Safeguards

Schedule	Para No.	Description	Remarks/Issues	Type
		<p>relevant information from such reports to affected people promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project (including, without limitation, any such risks and impacts that were not considered in the applicable IEE or EMP), promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.</p>		
5	17	<p>Prohibited List of Investments</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>	Ensured.	Safeguards
5	18	<p>Labor Standards and Health</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, monitoring of the social impacts throughout the implementation of the Project in consultation with local governments, local communities and nongovernment organizations. UWSCG shall ensure that all civil works contractors: (a) comply with all applicable</p>	Ensured.	Social

Schedule	Para No.	Description	Remarks/Issues	Type
		labor laws of the Borrower; (b) use their best efforts to employ women and local people, including disadvantaged people, living in the vicinity of the Project; (c) disseminate information at worksites on health safety (including HIV prevention programs) for those employed during construction; (d) maintain equal pay to men and women for work of equal type; (e) provide safe working conditions and appropriate facilities for male and female workers; and (f) abstain from child labor.		
5	19	<p>Gender and Development</p> <p>The Borrower shall ensure, and shall cause UWSCG to ensure, that: (a) Project Gender Action Plan (GAP) is fully implemented and monitored in a timely manner in accordance with its terms, related regulations of the Borrower and ADB's Policy on Gender and Development (1998) and adequate resources are allocated for this purpose; (b) bidding documents include provisions as specified in the GAP, including equal pay to men and women for same type of work and enabling working conditions for female workers; (c) progress in achieving the GAP targets are reflected in the Project progress reports and Project completion report; and (d) targets under the GAP are achieved including, but not limited to (i) by 2017, UWSCG establishes in Zugdidi a service center with a customer care unit staffed by at least 30% women that informs, educates, and communicates on water, hygiene and sanitation; and (ii) by 2017, a public awareness campaign</p>	<p>Implementation of GAP is in progress.</p> <p>The Gender Annual Report was submitted to ADB on 5 September 2014 for review and comments.</p>	Social

Schedule	Para No.	Description	Remarks/Issues	Type
		targeting women as household managers is rolled out in Zugdidi and Poti with the help of the project management consultants and Investment Program management office.		
5	20	Governance and Anticorruption  The Borrower and UWSCG shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.	Ensured.	Others
5	21	The Borrower and UWSCG shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants and other service providers as they relate to the Project.	Ensured.	Others
5	22	The Borrower shall cause UWSCG to disclose on its website information on (a) bidding procedures, bidders and contract awards; (b) the use of funds disbursed under the Project; (c) the physical progress of the Project; and (d) safeguard matters, including any environmental and/or social safeguard plans required to be prepared for the Project.	Ensured.	Others
LA		Section 4.03  The Borrower shall enable ADB's	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		representatives to inspect the Project, the Goods and Works, and any relevant records and documents.		
LA		Section 4.04  ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.	Ensured	Financials
LA		Section 4.05  The Borrower shall take all actions which shall be necessary on its part to enable UWSCG to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.	In progress.	Others
LA		Section 4.06  (a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan. (b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of ADB.	Ensured.	Others
LA		Section 5.01  A date 60 days after the date of this Loan Agreement is specified for the effectiveness of this Loan Agreement for the purposes of Section	Ensured.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		10.04 of the Loan Regulations.		
PA		<p>Section 2.06</p> <p>UWSCG shall maintain, or cause to be maintained, records and accounts adequate to identify the items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, its operations and financial condition.</p>	In progress.	Financials
PA		<p>Section 2.08</p> <p>(a) UWSCG shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the items of expenditure financed out of such proceeds; (iii) the Project; (iv) the administration, operations and financial condition of UWSCG; and (v) any other matters relating to the purposes of the Loan.</p> <p>(b) Without limiting the generality of the foregoing, UWSCG shall furnish to ADB semiannual reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the period under review, steps taken or</p>	No issues so far.	Others

Schedule	Para No.	Description	Remarks/Issues	Type
		<p>proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following period.</p> <p>(c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose, UWSCG shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by UWSCG of its obligations under this Project Agreement and the accomplishment of the purposes of the Loan.</p>		
PA		<p>Section 2.09</p> <p>(a) UWSCG shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements for the Project audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with International Standards on Auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements, use of the Loan proceeds and compliance with the financial covenants of the Loan Agreement) and a management letter (which sets out the deficiencies in the internal control of the Project</p>	In progress.	Financials

Schedule	Para No.	Description	Remarks/Issues	Type
		<p>that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.</p> <p>(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, UWSCG shall (i) provide its annual financial statements prepared in accordance with financial reporting standards acceptable to ADB; (ii) have its financial statements audited annually by independent auditors, in accordance with international standards for auditing or the national equivalent acceptable to ADB; and (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.</p> <p>(d) UWSCG shall enable ADB, upon ADB's request, to discuss the financial statements for</p>		



Schedule	Para No.	Description	Remarks/Issues	Type
		the Project and UWSCG and its financial affairs where they relate to the Project with the auditors appointed by UWSCG pursuant to subsections (a)(iii) and (c) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of UWSCG, unless UWSCG shall otherwise agree.		