Facility Administration Manual

Project Number: 43405
Loan Number(s): {LXXXX }
February 2011

Proposed Multitranche Financing Facility
Georgia: Urban Services Improvement Investment Program

CONTENTS

Facility Administration Manual Purpose and Process

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

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 Investment Program, as agreed jointly between the beneficiary and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by MRDI and UWSCG of their obligations and responsibilities for Investment Program implementation in accordance with ADB's policies and procedures.

In the event of any discrepancy or contradiction between the FAM and the Loan and/or Project Agreement, the provisions of the Loan and/or Project Agreement shall prevail.

After ADB Board approval of the Investment Program'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 FAM.

Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LAR	=	land acquisition and resettlement
LIBOR	=	London interbank offered rate
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PIU	=	project implementation unit
QBS	=	quality based selection
QCBS	=	quality- and cost-based selection
RF	=	resettlement framework
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

I. PROJECT DESCRIPTION

A. Overview

1. The Investment Program will improve the health of residents in the secondary towns of Marneuli, Kutaisi, Poti, Zugdidi, Anaklia and Mestia. The outcome of the Investment Program is improved WSS services in these secondary towns.

1. Component 1: Infrastructure Improvement

2. The first component will include infrastructure investments to rehabilitate, improve and expand water supply and sanitation facilities in 6 secondary towns, and provision of vehicles and equipment for system operation and maintenance for these towns

2. Component 2: Institutional Effectiveness

3. The second component will provide capacity development for the Ministry of Environmental Protection and Natural Resources (MEPNR), Ministry of Agriculture (MA), Georgia National Energy and Water Supply Regulatory Commission (GNEWSRC), and the United Water Supply Company of Georgia LLC (UWSCG). This includes providing management contractor support to improve management and technical capabilities of UWSCG.

3. Component 3: Project Implementation Support

4. The third component will provide project implementation support comprising detailed engineering, construction supervision, safeguards compliance, preparing subsequent projects of the Investment Program and a public awareness program on health, hygiene, sanitation and water conservation.

B. Project 1

5. The multitranche financing facility (MFF) for financing the Investment Program implementation will be structured as four tranches. Completion of engineering designs, safeguard compliance, and completion of procurement documents will trigger preparation of subsequent tranches. Project 1 to be financed by the first tranche of the MFF will include: (i) construction of water supply facilities, water treatment facilities and water transmission systems in Anaklia, Marneuli, Mestia and Zugdidi; (ii) procurement of vehicles and equipment for water supply and sewerage (WSS) operation and maintenance in Anaklia, Kutaisi, Marneuli, Mestia, Poti and Zugdidi; and (iii) all activities under components 2 and 3.

6. The Ministry of Regional Development and Infrastructure (MRDI) will be the Investment Program's executing agency and the implementing agency for Component 2 of the Investment Program. The UWSCG will be the implementing agency for Component 1 and 3 of the Investment Program.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

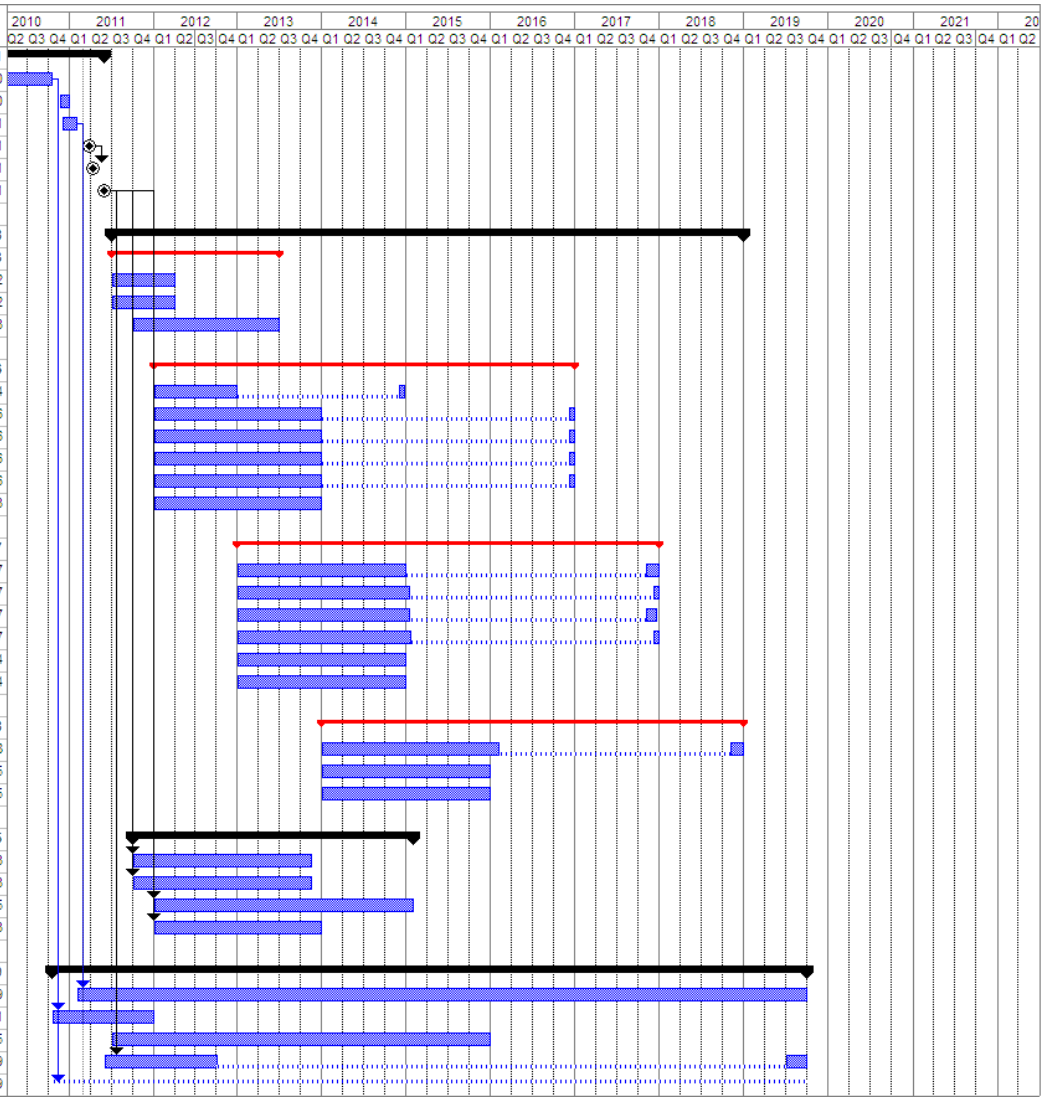
	Indicative Activities	2010 Oct	Nov	Dec	2011 Jan	Feb	Mar	Apr	May	Jun	Responsible Party
1	Advance contracting actions[1]										UWSCG, MRDI
2	Establish MFF implementation arrangements										MRDI, ADB
3	ADB Board approval										ADB
4	Tranche 1 Loan signing										MRDI and ADB
5	Government legal opinion provided										UWSCG, MRDI
6	Government budget inclusion										MRDI
7	Tranche 1 Loan effectiveness										MRDI

ADB = Asian Development Bank, MFF = multitranche financing facility, MRDI = Ministry of Regional Development and Infrastructure, UWSCG = United Water Supply Company of Georgia LLC.

[1] ADB approved advance contracting and retroactive financing for (i) detailed engineering design consultants on 11 March 2010; and (ii) vehicle and maintenance equipment on 9 August 2010.

B. Overall Project Implementation Plan

ID	Task Name	Duration	Start	Finish
2	**Project Preparation**	**319 days?**	**Thu 11/03/10**	**Tue 31/05/11**
3	Advance contracting - detailed engineering	159 days?	Thu 11/03/10	Tue 19/10/10
4	Advance contracting - equipment procurement	32 days?	Thu 18/11/10	Fri 31/12/10
5	Establish implementation arrangements	44 days?	Wed 01/12/10	Mon 31/01/11
6	ADB Board approval	1 day?	Tue 29/03/11	Tue 29/03/11
7	Tranche 1 Loan signing	1 day?	Fri 15/04/11	Fri 15/04/11
8	Tranche 1 Loan effectiveness	1 day?	Tue 31/05/11	Tue 31/05/11
9				
10	**Component 1: Infrastructure Improvement**	**1957 days?**	**Fri 01/07/11**	**Mon 31/12/18**
11	**Tranche 1**	**521 days?**	**Fri 01/07/11**	**Fri 28/06/13**
12	Mestia water intake	196 days	Fri 01/07/11	Fri 30/03/12
13	Marneuli water intake	196 days?	Fri 01/07/11	Fri 30/03/12
14	Zugdidi and Anaklia water intake	455 days?	Mon 03/10/11	Fri 28/06/13
15				
16	**Tranche 2**	**1305 days?**	**Mon 02/01/12**	**Fri 30/12/16**
17	Mestia WSS network	281 days?	Mon 02/01/12	Fri 26/12/14
18	Marneuli WSS network - 1	544 days?	Mon 02/01/12	Fri 30/12/16
19	Zugdidi and Anaklia WSS network - 1	544 days?	Mon 02/01/12	Fri 30/12/16
20	Kutaisi WSS network - 1	544 days?	Mon 02/01/12	Fri 30/12/16
21	Poti WSS network - 1	544 days?	Mon 02/01/12	Fri 30/12/16
22	Mestia and Anaklia Sewage Treatment Plant	522 days?	Mon 02/01/12	Tue 31/12/13
23				
24	**Tranche 3**	**1304 days?**	**Tue 01/01/13**	**Fri 29/12/17**
25	Marneuli WSS network - 2	565 days?	Tue 01/01/13	Fri 29/12/17
26	Zugdidi WSS network - 2	555 days?	Tue 01/01/13	Fri 29/12/17
27	Kutaisi WSS network - 2	569 days?	Tue 01/01/13	Tue 19/12/17
28	Poti WSS network - 2	560 days?	Tue 01/01/13	Fri 29/12/17
29	Marneuli Sewage Treatment Plant	522 days?	Tue 01/01/13	Wed 31/12/14
30	Poti Sewage Treatment Plant	522 days?	Tue 01/01/13	Wed 31/12/14
31				
32	**Tranche 4**	**1304 days?**	**Wed 01/01/14**	**Mon 31/12/18**
33	Kutaisi WSS network - 3	591 days	Wed 01/01/14	Mon 31/12/18
34	Zugdidi Sewage Treatment Plant	522 days?	Wed 01/01/14	Thu 31/12/15
35	Kutaisi Sewage Treatment Plant	522 days?	Wed 01/01/14	Thu 31/12/15
36				
37	**Component 2: Institutional Effectiveness**	**870 days?**	**Mon 03/10/11**	**Fri 30/01/15**
38	Capacity building of GNEWSRC	557 days?	Mon 03/10/11	Tue 19/11/13
39	Capacity building of MRDI, MEPNR, and MA	557 days?	Mon 03/10/11	Tue 19/11/13
40	Management Contractor for UWSCG	805 days?	Mon 02/01/12	Fri 30/01/15
41	WSS Management Program with Universities	522 days?	Mon 02/01/12	Tue 31/12/13
42				
43	**Component 3: Project Implementation Support**	**2334 days?**	**Wed 20/10/10**	**Mon 30/09/19**
44	Investment Program Management	2260 days?	Tue 01/02/11	Mon 30/09/19
45	Detailed engineering design	313 days?	Wed 20/10/10	Fri 30/12/11
46	Construction supervision and management	1175 days?	Fri 01/07/11	Thu 31/12/15
47	Information, Education and Communication	414 days?	Wed 01/06/11	Mon 30/09/19
48	Safeguards compliance monitoring	2334 days?	Wed 20/10/10	Mon 30/09/19



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations– Roles and Responsibilities

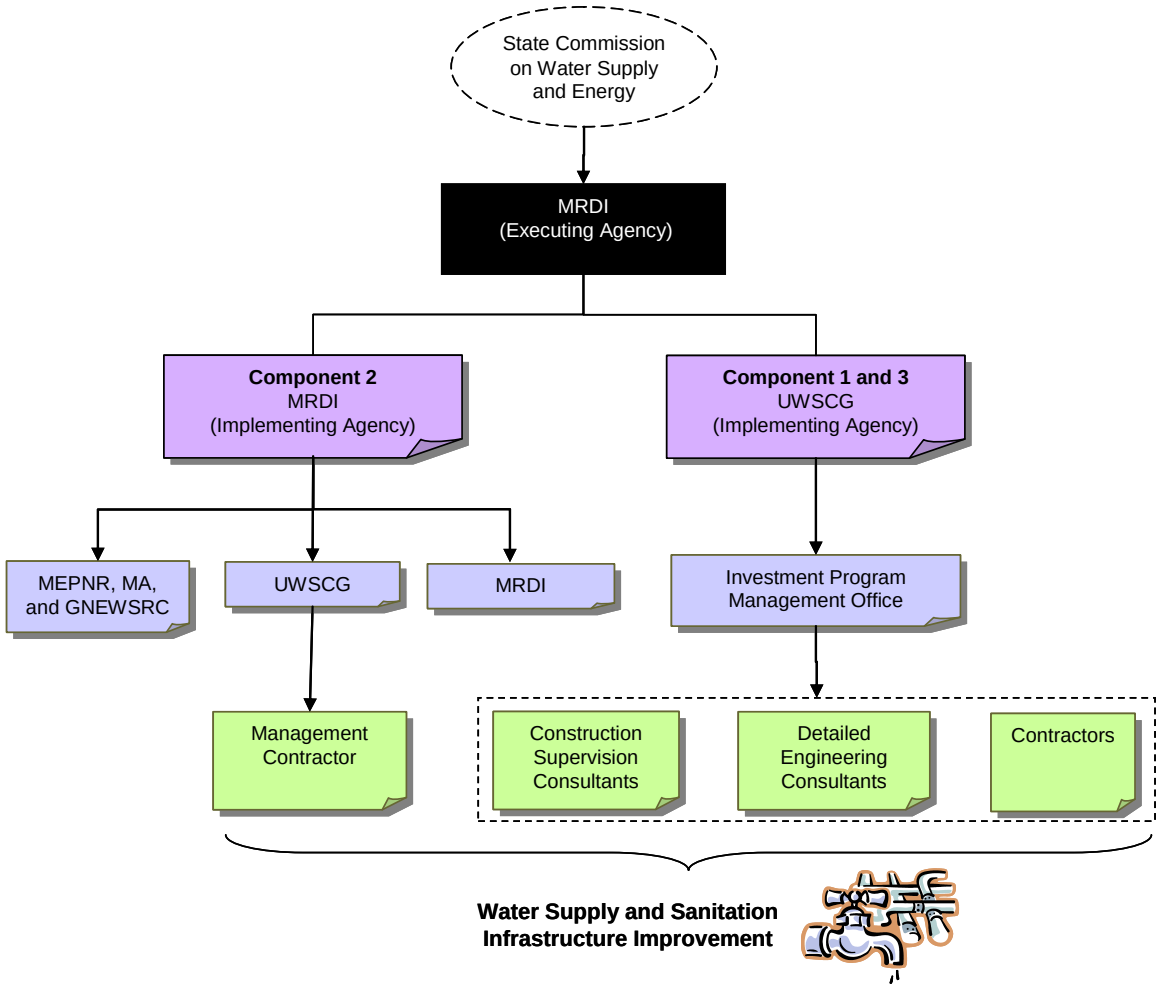
Implementation Organizations	Management Roles and Responsibilities
• Steering Committee (State Commission on Water Supply and Energy)	• oversee progress and provide guidance on the Investment Program implementation • meet at least once every 3 months until Investment Program completion
• Executing Agency (Ministry of Regional Development and Infrastructure)	• responsible for Investment Program oversight and administration • hold monthly meetings with UWSCG to review progress • submit progress reports to the SC for decision making • ensure compliance with Investment Program covenants • submit Investment Program documents, including audit reports, to ADB on time • convene regular meetings in consultation with the SC Chairperson and UWSCG
• Implementing Agency 1: MRDI	For Component 2 on Institutional Effectiveness: • Through UWSCG, provide capacity building support to the GNEWSRC on economic and service standard regulation, to the MEPNR on environmental safeguards compliance, and to the MA on monitoring drinking water quality standards • Engage a Management Contractor to assist the UWSCG improve its service delivery and business planning • Delegate processing of withdrawal applications to UWSCG under Component 2 but will review and sign them before submission
• Implementing Agency 2: UWSCG	For Component 1 on Infrastructure Investment and Component 3 on Project Implementation Support: • prepare the periodic financing request • oversee Investment Program implementation and management • oversee Investment Program accounting and auditing • manage all consultants • coordinate with all line ministries to ensure smooth and efficient implementation • secure technical and environmental approvals for all civil works prior to bidding • implement the environmental management plan for each subproject • ensure compliance with Investment Program covenants • comply with social safeguards requirement detailed in the FAM • invite bids, evaluate and prepare bid evaluation reports for

Implementation Organizations	Management Roles and Responsibilities
	ADB's approval • award contracts • prepare quarterly progress reports
• Management Contractor	Will assist UWSCG in: • managing the company operations and improving the delivery of WSS services • undertaking long-term capital planning and asset strengthening, procurement, supervision of capital improvement works, operation and maintenance, and financial management • placing a team of professionals at the UWSCG head office in Tbilisi, regional branches, and service centers, work with UWSCG staff to establish appropriate management systems • undertaking the operation and maintenance of WSS systems in all the service centers with the existing staff of the UWSCG, and provide on the job training to enhance UWSCG staff capacity, and improve their management, administrative and technical performance
• Detailed Engineering Consultant	• responsible for designing water supply and sewerage systems in 6 Investment Program towns (Marneuli, Kutaisi, Poti, Anaklia, Zugdidi and Mestia) • responsible for completion safeguards compliance documents for all subprojects • responsible for assisting UWSCG in preparing the periodic financing request
• Construction Supervision Consultant	• responsible for supervising construction of water supply and sewerage systems in 6 Investment Program towns (Marneuli, Kutaisi, Poti, Anaklia, Zugdidi and Mestia) • responsible for ensuring that all safeguards compliance plans are implemented
• ADB	• Ensure technical and financial support and oversight according to the framework financing, loan and project agreement

B. Key Persons Involved in Implementation

Executing Agency	**Contact Information**
Ministry of Regional Development and Infrastructure	Officer's Name: Mamuka Vatsadze Position: Deputy Minister Telephone: +995-32-510703 Email address: vatsadze@mrdi.gov.ge
United Water Supply Company of Georgia LLC	Officer's Name: Irakli Kvashilava Position: Director Telephone: +995-32-725437 Email address: kvashilava@mrdi.gov.ge
Asian Development Bank	
Urban Development and Water Division Central and West Asia Department	Staff Name: Ramesh Subramaniam Position: Director Telephone: +63-2-632 6864 Email address: rsubramaniam@adb.org
Mission Leader	Staff Name: Vijay Padmanabhan Position: Urban Development Specialist Telephone: +63-2-632 5417 Email address: vpadmanabhan@adb.org

C. Project Organization Structure



Component 1 = Infrastructure Improvement, Component 2 = Institutional Effectiveness, Component 3 = Project Implementation Support, GNEWSRC = Georgia National Energy and Water Supply Regulatory Commission, MA = Ministry of Agriculture, MEPNR = Ministry of Environmental Protection and Natural Resources, MRDI = Ministry of Regional Development and Infrastructure, UWSCG = United Water Supply Company of Georgia Limited Liability Company

IV. COSTS AND FINANCING

A. Detailed Cost Estimates by Expenditure Category

1. Investment Program

Items			Total Cost	% of Total Base Cost
A.	**Investment Costs**			
	1	Civil Works	444.13	90.40
	2	Equipment and Machinery	5.00	1.00
	3	Environment and Social Mitigation	1.50	0.30
	4	Consultants and Management Contractor	24.50	5.00
		Subtotal (A)	**475.13**	**96.70**
B.	**Recurrent Costs**			
	1	IPMO Consultants	1.27	0.30
	2	System Operation and Maintenance	14.70	3.00
		Subtotal (B)	**15.97**	**3.30**
		Total Base Cost	**491.10**	**100.0%**
C.	**Contingencies**			
	1	Physical	49.46	-
	2	Price	68.49	-
		Subtotal (C)	**117.95**	-
D.	**Financing Charges During Implementation**			
	1	Interest During Construction	15.76	-
	2	Commitment Charges	0.19	-
		Subtotal (D)	**15.95**	_
Total Project Cost (A+B+C+D)			**625.00**	

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

2. Project 1

Items			Total Cost	% of Total Base Cost
A.	**Investment Costs**			
	1	Civil Works	57.50	65.10
	2	Equipment and Machinery	5.00	5.70
		Water	3.00	3.40
		Sewerage	2.00	2.30
	3	Environment and Social Mitigation	0.50	0.60
	4	Consultants and Management Contractor	24.50	27.70
		Subtotal (A)	**87.50**	**99.10**
B.	**Recurrent Costs**			
	1	IPMO Consultants	0.80	0.90
	2	System Operation and Maintenance	-	-
		Subtotal (B)	**0.80**	**0.90**
		Total Base Cost	**88.30**	**100.00**
C.	**Contingencies**			
	1	Physical	9.28	-
	2	Price	5.26	-
		Subtotal (C)	**14.54**	-
D.	**Financing Charges During Implementation**			
	1	Interest During Construction	2.17	-
	2	Commitment Charges	-	-
		Subtotal (D)	**2.17**	_
Total Project Cost (A+B+C+D)			**105.00**	

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

B. Allocation and Withdrawal of Tranche 1 Loan Proceeds

Number	Category	Total Amount Allocated for ADB Financing (SDR)	ADB Financing Percentage and Basis for Withdrawal from the Loan Account
1	Works	31,274,000	84.75%
2	Goods	2,719,000	84.75%
3	Consulting Services	14,030,000	84.75%
4	Interest	1,393,000	100.00%
5	Unallocated	1,927,000	
	Total	51,343,000	

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

C. Detailed Cost Estimates by Financier

1. Investment Program

$ million

	Items	Total	ADB		Government	
			Amount	% of Cost Category	Amount	% of Cost Category
A.	**Investment Costs**					
1	Civil Works	444.13	376.20	84.70	67.93	15.30
2	Equipment and Machinery	5.00	4.24	84.80	0.76	15.20
3	Environment and Social Mitigation	1.50	1.27	84.70	0.23	15.30
4	Consultants and Management Contractor	24.50	20.76	84.70	3.74	15.30
	Subtotal (A)	**475.13**	**402.47**	**84.70**	**72.66**	**15.30**
B.	**Recurrent Costs**					
1	IPMO Consultants	1.27	1.08	85.00	0.19	15.00
2	System O&M	14.70	7.12	48.40	7.58	51.60
	Subtotal (B)	**15.97**	**8.20**	**51.35**	**7.77**	**48.65**
	Total Base Cost	**491.10**	**410.67**	**83.62**	**80.43**	**16.38**
C.	**Contingencies**					
1	Physical	49.46	25.59	51.74	23.87	48.26
2	Price	68.49	47.99	70.07	20.50	29.93
	Subtotal (C)	**117.95**	**73.57**	**62.40**	**44.37**	**37.60**
D.	**Financing Charges During Implementation**					
1	Interest During Construction	15.76	15.76	100.00	-	-
2	Commitment Charges	0.19	-	-	0.19	100.00
	Subtotal (D)	**15.95**	**15.76**	**98.80**	**0.19**	**1.20**
Total Project Cost (A+B+C+D)		**625.00**	**500.00**	**80.00**	**125.00**	**20.00**

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

2. Project 1

$ million

	Item	Total Cost	ADB		Government	
			Amount	% of Cost Category	Amount	% of Cost Category
A.	**Investment Costs**					
1	Civil Works	57.50	48.73	84.75	8.77	15.25
2	Equipment and Machinery	5.00	4.24	84.75	0.76	15.25
	Water	3.00	2.54	84.75	0.46	15.25
	Sewerage	2.00	1.69	84.75	0.31	15.25
3	Environment and Social Mitigation	0.50	0.42	84.75	0.08	15.25
4	Consultants and Management Contractor	24.50	20.76	84.75	3.74	15.25
	Subtotal (A)	**87.50**	**74.15**	**84.75**	**13.35**	**15.25**
B.	**Recurrent Costs**					
1	IPMO Consultants	0.80	0.67	84.75	0.12	15.25
2	System Operation and Maintenance	-	-	-	-	-
	Subtotal (B)	**0.80**	**0.67**	**84.75**	**0.12**	**15.25**
	Total Base Cost	**88.30**	**74.83**	**84.75**	**13.47**	**15.25**
C.	**Contingencies**					
1	Physical	9.28	-	-	9.28	100.00
2	Price	5.26	3.01	57.20	2.25	42.80
	Subtotal (C)	**14.54**	**3.01**	**20.70**	**11.53**	**79.30**
D.	**Financing Charges During Implementation**					
1	Interest During Implementation	2.17	2.17	100.00	-	-
2	Commitment Charges	-	-	-	-	-
	Subtotal (D)	**2.17**	**2.17**	**100.00**	**-**	**-**
Total Project Cost (A+B+C+D)		**105.00**	**80.00**	**76.20**	**25.00**	**23.80**

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

D. Detailed Cost Estimates by Outputs/Components

1. Investment Program

Item			Total Cost	Water		Sanitation	
				Amount	% of Cost Category	Amount	% of Cost Category
A.	**Investment Costs**						
	1	Civil Works	444.13	187.48	42.20	256.65	57.80
	2	Equipment and Machinery	5.00	3.00	60.00	2.00	40.00
	3	Environment and Social Mitigation	1.50	0.75	50.00	0.75	50.00
	4	Consultants and Management Contractor	24.50	12.25	50.00	12.25	50.00
		Subtotal (A)	**475.13**	**203.48**	**42.83**	**271.65**	**57.17**
B.	**Recurrent Costs**						
	1	IPMO Consultants	1.27	0.64	50.00	0.64	50.00
	2	System Operation and Maintenance	14.70	7.35	50.00	7.35	50.00
		Subtotal (B)	**15.97**	**7.99**	**50.00**	**7.99**	**50.00**
		Total Base Cost	**491.10**	**211.46**	**43.06**	**279.64**	**56.94**
C.	**Contingencies**						
	1	Physical	49.46	21.30	43.07	28.16	56.93
	2	Price	68.49	29.49	43.06	39.00	56.94
		Subtotal (C)	**117.95**	**50.79**	**43.06**	**67.16**	**56.94**
D.	**Financing Charges During Implementation**						
	1	Interest During Implementation	15.76	6.79	43.08	8.97	56.92
	2	Commitment Charges	0.19	0.08	42.10	0.11	57.90
		Subtotal (D)	**15.95**	**6.87**	**43.07**	**9.08**	**56.93**
Total Project Cost (A+B+C+D)			**625.00**	**269.12**	**43.00**	**355.88**	**57.00**

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

2. Project 1

	Item	Total Cost	Water		Sanitation	
			Amount	% of Cost Category	Amount	% of Cost Category
A.	**Investment Costs**					
1	Civil Works	57.50	57.50	65.88	-	-
2	Equipment and Machinery	5.00	3.00	3.40	2.00	11.29
	Water	3.00	3.00	3.40	2.00	11.29
	Sewerage	2.00	-	-	2.00	11.29
3	Environment and Social Mitigation	0.50	0.25	0.20	0.25	1.41
4	Consultants and Management Contractor	24.50	12.25	14.03	12.25	69.13
	Subtotal (A)	**87.50**	**73.00**	**83.64**	**14.50**	**81.83**
B.	**Recurrent Costs**					
1	Independent Engineer	0.80	0.40	0.45	0.40	2.26
2	System Operation and Maintenance	-	-	-	-	-
	Subtotal (B)	**0.80**	**0.40**	**0.45**	**0.40**	**2.26**
	Total Base Cost	**88.30**	**73.40**	**84.10**	**14.90**	**84.10**
C.	**Contingencies**					
1	Physical	9.28	7.71	8.83	1.57	8.90
2	Price	5.26	4.37	5.00	0.89	5.02
	Subtotal (C)	**14.54**	**12.08**	**13.84**	**2.46**	**13.89**
D.	**Financing Charges During Implementation**					
1	Interest During Implementation	2.17	1.80	2.01	0.37	2.10
2	Commitment Charges	-	-	-	-	-
	Subtotal (D)	**2.17**	**1.80**	**2.01**	**0.37**	**2.10**
Total Project Cost (A+B+C+D)		**105.00**	**87.28**	**100.00**	**17.72**	**100.00**

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

E. Detailed Cost Estimates by Year

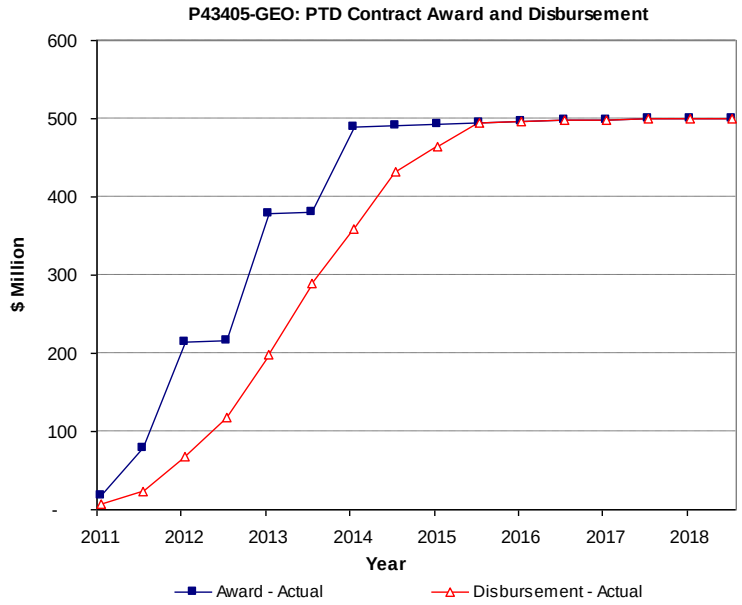
$ million

	Item	Total	2011	2012	2013	2014	2015	2016	2017	2018
A.	**Investment Costs**									
1	Civil Works	444.13	57.50	130.50	158.06	98.06		-	-	-
	Tranche 1	57.50	57.50	-	-			-	-	-
	Tranche 2	130.50	-	130.50	-	-		-	-	-
	Tranche 3	158.06	-	-	158.06			-	-	-
	Tranche 4	98.06	-	-	-	98.06		-	-	-
2	Equipment and Machinery	5.00	5.00	-	-	-		-	-	-
	Tranche 1 (Water)	3.00	3.00	-	-	-		-	-	-
	Tranche 1 (Sewerage)	2.00	2.00	-	-	-		-	-	-
3	Environment and Social Mitigation	1.50	0.50	1.00	-	-		-	-	-
	Tranche 1	0.50	0.50	-	-	-		-	-	-
	Tranche 2	1.00	-	1.00	-	-		-	-	-
4	Consultants	24.50	24.50	-	-	-		-	-	-
	Tranche 1	24.50	24.50	-	-	-		-	-	-
	Subtotal (A)	475.13	87.50	131.50	158.06	98.06		-	-	-
B.	**Recurrent Costs**									
1	IPMO Consultant	1.27	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
	Tranche 1	0.80	0.16	0.16	0.16	0.16	0.16	-	-	-
	Tranche 3	0.48	-	-	-	-	-	0.16	0.16	0.16
2	System Operation and Maintenance	14.70	-	-	-	2.20	4.30	4.90	2.70	0.60
	Tranche 1	-	-	-	-	-	-	-	-	-
	Tranche 2	6.60	-	-	-	2.20	2.20	2.20	-	-
	Tranche 3	6.30	-	-	-	-	2.10	2.10	2.10	-
	Tranche 4	1.80	-	-	-	-	-	0.60	0.60	0.60
	Subtotal (B)	15.97	0.16	0.16	0.16	2.36	4.46	5.06	2.86	0.76
	Total Base Cost	491.10	87.66	131.66	158.22	100.42	4.46	5.06	2.86	0.76
C.	**Contingencies**									
1	Physical	49.46	9.12	13.17	15.82	10.04	0.45	0.51	0.29	0.08
	Tranche 1	9.28	9.12	0.12	0.02	0.02	0.02	-	-	-
	Tranche 2	13.71	-	13.05	-	0.22	0.22	0.22	-	-
	Tranche 3	16.48	-	-	15.81	-	0.21	0.23	0.23	0.02
	Tranche 4	9.99	-	-	-	9.81	-	0.06	0.06	0.06
2	Price	68.49	5.01	7.31	27.43	23.81	1.35	1.89	1.28	0.40
	Tranche 1	5.26	5.01	0.13	0.03	0.04	0.05	-	-	-
	Tranche 2	9.39	-	7.18	-	0.52	0.67	0.88	0.07	0.08
	Tranche 3	29.79	-	-	27.41	-	0.64	0.79	0.95	0.01
	Tranche 4	24.05	-	-	-	23.25	-	0.22	0.27	0.31
	Subtotal (C)	117.95	14.13	20.47	43.26	33.85	1.80	2.40	1.57	0.47
D.	**Financing Charges During Implementation**									
1	Interest During Implementation	15.76	0.64	1.56	2.08	4.05	3.37	2.90	1.16	-
	Tranche 1	2.17	0.64	0.63	0.08	0.82	-	-	-	-
	Tranche 2	4.81	-	0.93	1.06	1.39	1.42	-	-	-
	Tranche 3	5.78	-	-	0.93	1.36	1.74	1.74	-	-
	Tranche 4	3.01	-	-	-	0.48	0.21	1.16	1.16	-
2	Commitment Charges	0.19	-	-	0.10	0.08	0.01	0.01	-	-
	Tranche 1	-	-	-	-	-	-	-	-	-
	Tranche 2	-	-	-	-	-	-	-	-	-
	Tranche 3	0.10	-	-	0.10	0.01	-	-	-	-
	Tranche 4	0.09	-	-	-	0.08	0.01	0.00	-	-
	Subtotal (D)	15.95	0.64	1.55	2.17	4.14	3.38	-	-	-
Total Project Cost (A+B+C+D)		625.00	102.42	153.69	203.65	138.41	9.64	7.46	4.43	1.23

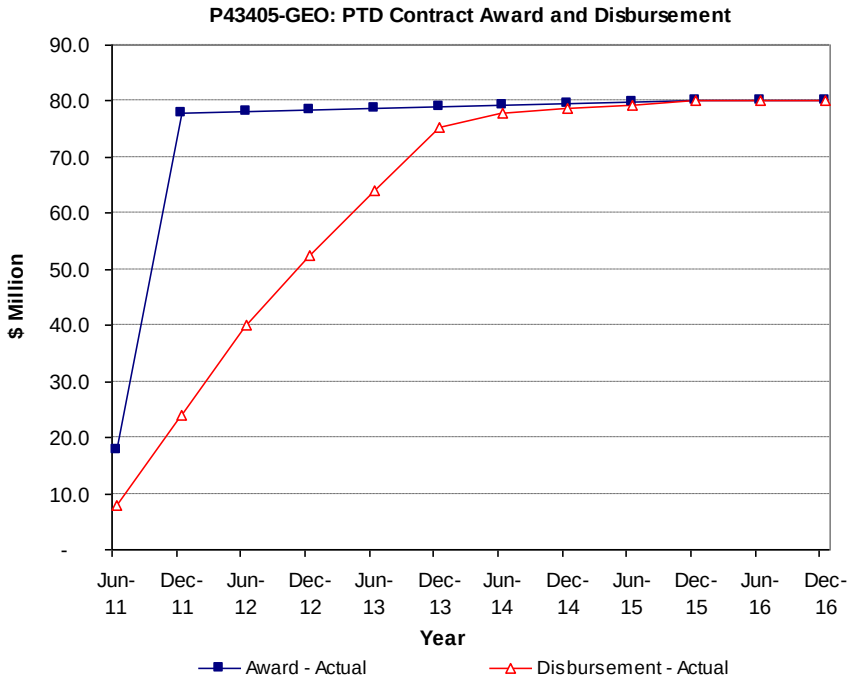
Source: United Water Supply Company of Georgia and Asian Development Bank estimates.

F. Contract and Disbursement S-curve

1. Investment Program



2. Project 1

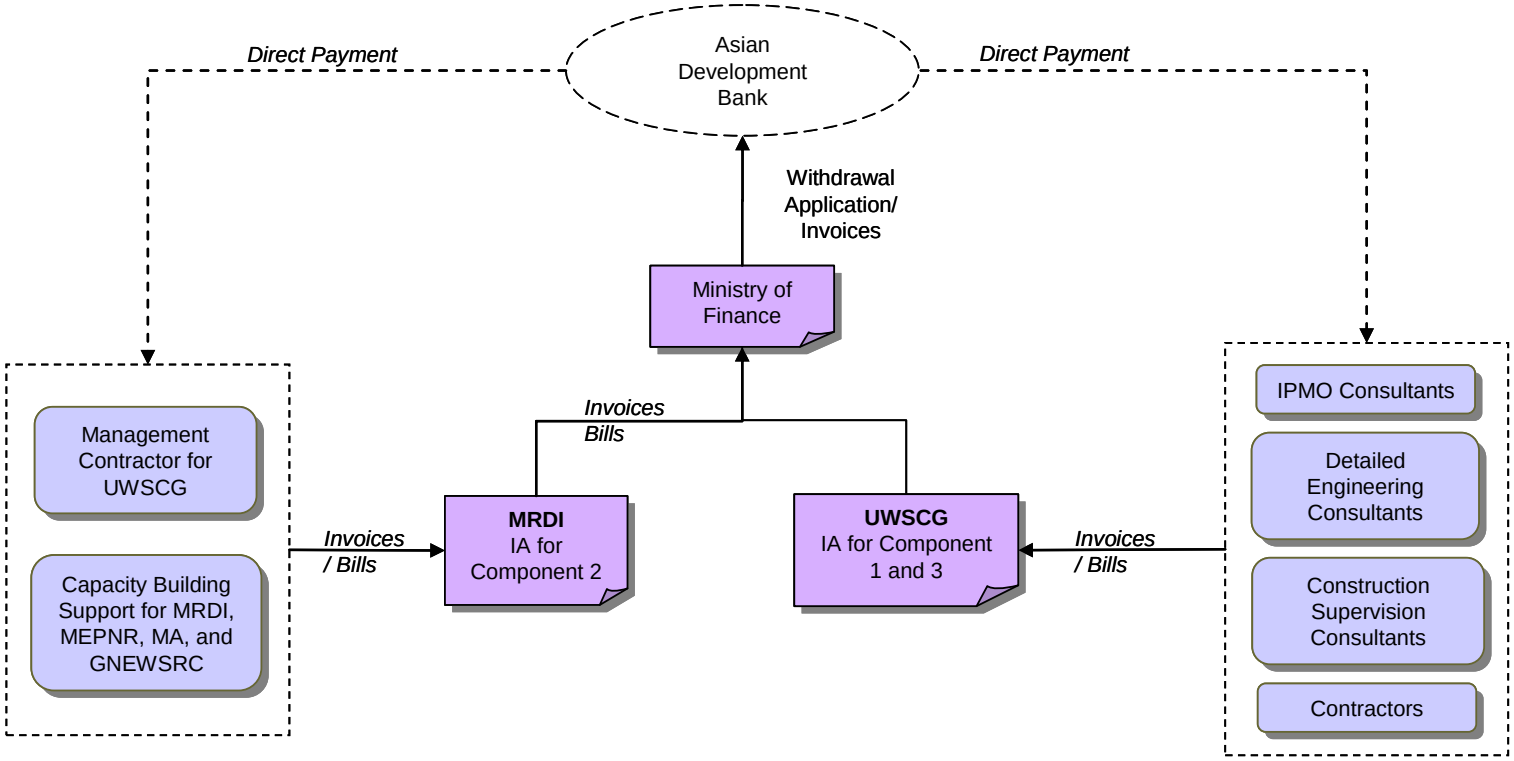


G. Summary Detailed Cost Estimates and Investment Plan

Towns	Intake	WSS-1	WSS-2	WSS-3	STP	Equip.	Total	T1	T2	T3	T4	Total
Civil Works and Equipment												
Marneuli	6.00	25.00	25.00	-	20.00	0.80	76.80	6.80	25.00	45.00	-	76.80
Zugdidi	50.00	30.00	30.00	-	25.00	0.80	135.80	50.80	30.00	30.00	25.00	135.80
Mestia	1.50	8.00	-	-	10.00	0.40	19.90	1.90	18.00	-	-	19.90
Kutaisi	-	32.50	32.50	33.07	40.00	1.00	139.07	1.00	32.50	33.07	73.07	139.63
Poti	-	25.00	25.00	-	25.00	1.00	76.00	1.00	25.00	50.00	-	76.00
Water Laboratory Equipment						1.00	1.00	1.00	-	-	-	1.00
Environment & Social Mitigation	-	-	-	-	-	-	-	0.50	1.00	-	-	1.50
Consultants and Management Contractor	-	-	-	-	-	-	-	24.50	-	-	-	24.50
Recurrent Costs												
IPMO Consultants	-	-	-	-	-	-	-	0.80	-	0.48	-	1.27
Post Construction O&M	-	-	-	-	-	-	-	-	6.60	6.30	1.80	14.70
Contingencies												
Physical	-	-	-	-	-	-	-	9.28	13.71	16.48	9.99	49.46
Price	-	-	-	-	-	-	-	5.26	9.39	29.79	24.06	68.49
Financing Charges												
Interest During Construction	-	-	-	-	-	-	-	2.17	4.81	5.78	3.01	15.76
Commitment Charges	-	-	-	-	-	-	-	-	-	0.10	0.09	0.19
Total	**57.50**	**120.50**	**112.50**	**33.07**	**120.00**	**5.00**	**448.57**	**105.00**	**166.00**	**217.00**	**137.00**	**625.00**

Financing Plan	T1	T2	T3	T4	Total
ADB	80.00	141.00	168.00	111.00	500.00
-OCR	-	-	139.00	111.00	250.00
-ADF	80.00	141.00	29.00	-	250.00
Georgia	25.00	25.00	49.00	26.00	125.00
Total	**105.00**	**166.00**	**217.00**	**137.00**	**625.00**

H. Fund Flow Diagram



Component 1 = Infrastructure Improvement, Component 2 = Institutional Effectiveness, Component 3 = Project Implementation Support, GNEWSRC = Georgia National Energy and Water Supply Regulatory Commission, IPMO = Investment Program Management Office, MA = Ministry of Agriculture, MEPNR = Ministry of Environmental Protection and Natural Resources, MRDI = Ministry of Regional Development and Infrastructure, UWSCG = United Water Supply Company of Georgia Limited Liability Company

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

1. Public Financial Management

7. The reform of the public financial management (PFM) system of Georgia has been a priority for the government in the last six years. The Budget System Law approved in 2004 set in place the principles of comprehensiveness, transparency, and accountability for the budget system as well as rules and procedures for the processes at all stages, which include budget preparation, discussion, approval and execution, consolidation, reporting and auditing of the actual expenditures.[2] All extra budgetary funds were closed and all state financial transactions were unified within a Treasury Single Account. This change increased the transparency of the budget process and information on revenue collection and spending was available to any interested group.

8. The Government of Georgia, in 2009, adopted a new Budget Code, which was designed to improve the budget process. With the adoption of the new Budget Code, the budget process became simplified and unified under a common system. This change also positively affected the transparency of the budget process. The basic data and directions (BDD) document became binding with the legislation.[3] In 2010 the budget, the expenditure ceilings of the budget agencies for the fiscal year was determined following the BDD document.

9. Another significant change to the budget process is an introduction of program and capital budgeting that is planned for implementation in 2012. Conversion into the program budgeting will clearly identify how much money is necessary for each program and activity, what the expected results of the program are and which performance indicators will be used to measure the output and outcome of the program. In addition to this budget preparation improvement, tax policy reform and other measures to improve the business climate, as well as re-structuring and re-staffing of key government units were also implemented.

2. Financial Management Assessment

10. The financial management assessment (FMA) was carried out for UWSCG, the Investment Program Implementing Agency. The FMA determined the following for UWSCG:

(i) **Accounting.** Accounting is based on international accounting standards and follows an accrual based system. The Financial Accounting Division is currently preparing a financial management manual to guide staff in applying international accounting practices. Staff will need training on international accounting standards and on international financial reporting standards to improve operational efficiencies.

(ii) **Budgeting.** Capital planning, tariff review and calculation, and budget preparation and coordination is carried out by the Financial and Economic Division and based on national budgeting guidelines. The staff will need adequate training on preparing business plans that meet commercial operational efficiencies for submissions to the

[2] The World Bank and European Commission. 2008. *Public Expenditure and Financial Accountability (PEFA)*. Tbilisi.

[3] In 2006, the medium term expenditure framework and basic data and directions (BDD) document was introduced. The document outlined the main macroeconomic indicators and basic directions and priorities of the Government for the next four fiscal years.

GNEWSRC. Determining tariffs in the short-term to meet revenue requirements and in the long-term to meet long-run marginal costs taking cognizance of socially equitable principles will be a key function the staff will require training on.

(iii) **Procurement.** Procurement is centrally managed and the staff is currently conversant with national procurement procedures only. Activities are largely related to procurement of regular maintenance goods and procurement of civil works and goods under donor financed WSS projects is conducted with Municipal Development Fund (MDF) support. Over the immediate term, UWSCG staff capacity should be developed to handle international competitive bidding for civil works, equipment and machinery, and turnkey projects.

11. UWSCG has an internal audit department to conduct audits though the GNEWRC, at present, does not require utility companies it regulates to submit audited financial statements. The UWSCG is currently not subject to an external audit but proposes to conduct an audit of its 2010 financial statements by an external auditor.

12. The financial management system of the UWSCG requires improvement through additional support from the Investment Program. The financial management manual will include a management plan to:

(i) record project financial transactions in accordance with agreed project components, disbursement categories, and sources of funds;
(ii) provide regular and reliable financial statements and monitoring reports during project implementation;
(iii) safeguard financial assets; and
(iv) subject financial statements to audit acceptable to ADB.

13. UWSCG's finance and procurement staff will undergo training on ADB disbursement and procurement procedures to ensure that the management plan indicated above is effective.

B. Disbursement

14. The loan proceeds for financing Goods, Works, and consulting services shall be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended to date)[4] Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),[5] 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.

15. The minimum value per withdrawal application is US$100,000, unless otherwise approved by ADB. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing. Withdrawal applications and other loan disbursement information are available at ADB Controller's Department's website, http://lfis.adb.org. For Component 2, MRDI will delegate processing of withdrawal applications to UWSCG but will review and sign them before submission.

[4] Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf
[5] Available at: http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf

16. **First Withdrawal Application (WA).** MOF should submit to ADB sufficient evidence of the authority of the (two) persons who will sign the withdrawal applications on behalf of the Government, together with the authenticated specimen signatures of each authorized person. Estimate of Expenditures Sheet/s[6] for the next 6 months will accompany the first WA.

17. **Retroactive Financing.** If approved by ADB, withdrawals from the relevant Loan Account may be made for reimbursement of eligible expenditures incurred under the relevant Project before the Effective Date of the Loan Agreement (but not earlier than 12 months before the date of the Loan Agreement) in connection with items to be retroactively financed, subject to a maximum amount equivalent to 20% of the amount of the Loan. ADB will reimburse eligible expenditures incurred for retroactive financing to the Borrower, MoF, MRDI or UWSCG depending on the entity incurring eligible expenditures. The entity should provide sufficient evidence satisfactory to ADB of having incurred the eligible expenditure to be eligible to claim amounts to be retroactively financed.

18. **Condition for Withdrawals from Loan Account.** Notwithstanding any other provision of this Loan Agreement, no withdrawals shall be made from the Loan Account until the Subsidiary Loan Agreement described between the Borrower and UWSCG in form and substance satisfactory to ADB, has been duly authorized or ratified, and executed and delivered on behalf of, the Borrower and UWSCG, and is legally binding upon the parties thereto in accordance with its terms.

C. Accounting

19. The Government shall ensure that the MRDI and UWSCG maintain separate accounts and records for the Loan Components and in accordance with sound accounting principles. These accounts shall be audited annually in accordance with standards acceptable to ADB, and the Government shall provide ADB with certified copies of the audited accounts promptly after their preparation (and no later than six months after the close of the Financial Year for the relevant accounts).

D. Auditing

20. MoF and MRDI will cause the detailed consolidated Project accounts to be audited in accordance with International Standards on Auditing and/or in accordance with the Government's audit regulations by an auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the MRDI. The Government and MoF have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. 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.

[6] Follow the format provided in Appendix 29 of the *Loan Disbursement Handbook.*

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

21. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Guidelines (April 2010, as amended from time to time) (ADB's *Procurement Guidelines*) and ADB's Guidelines on the Use of Consultants (April 2010, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The government, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Investment Program.

22. **Advance contracting.** The government has requested ADB's approval of advance contracting for (i) the recruitment of consultants (detailed engineering consultants); (ii) procurement of civil works; and (iii) procurement of water supply and sewerage system maintenance equipment.

23. **Retroactive financing.** For tranche 1, ADB will finance a maximum amount of eligible expenditures up to the equivalent of 20% of the loan for tranche 1 (approximately $16,000,000) incurred before tranche 1 loan effectiveness but not earlier than 12 months before the signing of the Loan Agreement for tranche 1. Retroactive financing shall apply to consulting services, civil works, and goods (to include water supply and sewerage system maintenance equipment) under tranche 1 loan.

B. Procurement of Goods, Works and Consulting Services

24. The Investment Program will follow ADB's *Procurement Guidelines* (2010, as amended time to time) and tranche 1 loan includes: (i) three international competitive bids (ICBs) for water supply intake works in Marneuli, Zugdidi, and Mestia; (ii) three ICBs for equipment and machinery for water supply and sewerage system maintenance in all six Investment Program towns; and (iii) recruitment of consulting services for the Investment Program Management Office Consultants, Management Contractor, Detailed Engineering Consultants, Construction Supervision Consultants, and individual consultants for capacity building initiatives. 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.

25. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants* (2010, as amended from time to time). The terms of reference for consulting services are detailed in Section D. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality: cost ratio of 80:20: Detailed Engineering Design Consultants with 149 person-months, Construction Supervision Consultants with 780 person-months, and a Management Contractor with 1,404 person-months.

26. Bidders eligibility will be determined in accordance with ADB's *Procurement Guidelines* (2010, as amended from time to time). 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.

C. Procurement Plan

Basic Data

Project Name: Urban Services Improvement Investment Program	
Country: Georgia	**Executing Agency**: Ministry of Regional Development and Infrastructure
Loan Amount: $80 million	**Loan Number: TBC**
Date of First Procurement Plan: loan approval date	**Date of this Procurement Plan**: 24 February 2011

1. Process Thresholds, Review and 18-Month Procurement Plan

a. Project Procurement Thresholds

27. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works

Method	Threshold
International Competitive Bidding (ICB) for Works	Above $1,000,000
International Competitive Bidding for Goods	Above $500,000
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

b. ADB Prior or Post Review

28. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Works	Prior	ADB SBD
ICB Goods	Prior	ADB SBD
NCB Works	Prior and Post	ADB SBD (prior followed by post)
NCB Goods	Prior and Post	ADB SBD (prior followed by post)
Shopping for Works	Post	ADB SBD
Shopping for Goods	Post	ADB SBD
Recruitment of Consulting Firms		
Quality- and Cost-Based Selection (QCBS)	Prior	RFP
Quality-Based Selection (QBS)	Prior	RFP
Other selection methods: CQS, LCS, FBS and SSS	Prior	RFP
Recruitment of Individual Consultants		
Individual Consultants	Prior	ToR

ADB = Asian Development Bank, Consultants Qualifications = CQS, Fixed Budget = FBS, Least-Cost Selection = LCS, RFP = Request for Proposal, SBD = Standard Bidding Document, Single Source Selection = SSS, ToR = Terms of Reference.

c. Goods and Works Contracts Estimated to Cost More Than $1 Million

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

General Description	Contract Value	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
Procurement of vehicles and equipment for system maintenance	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	ICB - Goods	N	Q3/2010	Advance actions and retroactive financing. 4 packages
Procurement of water laboratory equipment		ICB - Goods	N	Q1/2011	1 package
Procurement of civil works for surface water intake, transmission and treatment		ICB - Works	N	Q3/2011	1 package in Marneuli and 1 package in Mestia
Procurement of civil works for surface water intake, transmission and treatment		ICB - Works	Y	Q3/2011	1 package for Zugdidi

d. Consulting Services Contracts Estimated to Cost More Than $100,000

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

General Description	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Design Engineering Consultant	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	QCBS (80:20)	Q2/2010	International	Advance actions and retroactive financing.
Construction Supervision Consultant		QCBS (80:20)	Q2/2011	International	-
Management Contractor		QCBS (80:20)	Q1/2011	International	ADB staff / staff consultant will be an observer in the CSC
Consultants for the public awareness program		QCBS (80:20)	Q2/2011	National	-
Consultants for the PPMS and KAPS survey		QCBS (80:20)	Q2/2011	National	
Consultants for auditing		QCBS (80:20)	Annually	National	To conduct UWSCG and Project Accounts auditing

QCBS = Quality and Cost Based Selection.

e. Goods and Works Contracts Estimated to Cost Less than $1 Million and Consulting Services Contracts Less than $100,000

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

General Description	Value of Contracts (cumulative)	Number of Contracts	Procurement / Recruitment Method	Comments
Consultants to support the IPMO	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	Minimum 4	-	Individual consultants
Consultants to support on capacity building and PPP transaction advisory		Minimum 6	-	Individual consultants
Consultants for conducting the WSS Management Program		Minimum 3	-	Individual consultants

IPMO = Investment Program Management Office.

2. Indicative List of Packages Required Under the Project

32. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods					
Procurement of vehicles and equipment for system maintenance	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	4	ICB	N	-
Procurement of water laboratory equipment		1	ICB	N	-
Works					
Procurement of civil works for surface water intake, transmission and treatment	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	2	ICB	N	1 package for Marneuli and 1 package for Mestia.
Procurement of civil works for surface water intake, transmission and treatment		1	ICB	N	1 package for Zugdidi.

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Design Engineering Consultant	[This information was deemed confidential according to exception # 10 of paragraph 126 of ADB's Public Communications Policy (2005)]	1	QCBS (80:20)	FTP	International = 36 pm and National = 113 pm
Construction Supervision Consultant		1	QCBS (80:20)	FTP	International = 60 pm and National = 720 pm
Management Contractor		1	QCBS (80:20)	FTP	International = 1,404 pm
Consultants for the public awareness program		1	QCBS (80:20)	STP	National = 200 pm
Consultants to support the IPMO		Minimum 4	-	-	-
Consultants to support on capacity building and PPP transaction advisory		Minimum 6	-	-	-
Consultants for conducting the WSS Management Program		Minimum 3	-	-	-
Consultants for baseline survey		1	QCBS (80:20)	National	-

3. National Competitive Bidding

a. General

33. The procedures to be followed for national competitive bidding shall be those set forth in the Law of Georgia on State Procurement January 1, 2006 with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB's *Procurement Guidelines* (April 2010, as amended from time to time).

b. Eligibility

34. The eligibility of bidders shall be as defined under section I of ADB's Procurement Guidelines, published by ADB (April 2010, as amended from time to time); accordingly, no bidder or potential bidder should be declared ineligible to ADB-financed contracts for other reasons than the ones provided by section I of ADB's *Procurement Guidelines*. Bidders must be nationals of member countries of ADB, and offered goods and services must be produced in and supplied from member countries of ADB. For loan from Special Funds resources, refer to eligibility defined in clauses 1.2 (a) and 2.11 (a) of ADB's *Procurement Guidelines.*

c. Prequalification

35. Normally, post-qualification shall be used unless explicitly provided for in the loan agreement/procurement plan. Irrespective of whether post qualification or prequalification is

used, eligible bidders (both national and foreign) shall be allowed to participate.

d. Registration and Licensing

(i) Bidding shall not be restricted to pre-registered/licensed firms.

(ii) Where registration or licensing is required, bidders (i) shall be allowed a reasonable time to complete the registration or licensing process; and (ii) shall not be denied registration/licensing for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.

(iii) Foreign bidders shall not be precluded from bidding. If a registration or licensing process is required, a foreign bidder declared the lowest evaluated bidder shall be given a reasonable opportunity to register or to obtain a license without unreasonable cost and additional requirements.

e. Bidding Period

36. The minimum bidding period is twenty-eight (28) days prior to the deadline for the submission of bids.

f. Bidding Documents

37. Procuring entities should use standard bidding documents for the procurement of goods, works and services acceptable to ADB.

38. The term “services” above are applicable to the following: (a) related services (for supply of goods and works) such as transportation, insurance, installation, commissioning, training and initial maintenance, and (b) other services such as drilling, mapping, and similar operations.

g. Preferences

39. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

h. Advertising

40. Invitations to bid shall be advertised in at least one widely circulated national daily newspaper or freely accessible, nationally-known website allowing a minimum of twenty-eight (28) days for the preparation and submission of bids.

41. Bidding of NCB contracts estimated at US$500,000 equivalent or more for goods and related services or US$1,000,000 equivalent or more for civil works shall be advertised on ADB’s website via the posting of the Procurement Plan.

i. Bid Security

42. Where required, bid security shall be in the form of a bank guarantee from a reputable bank.

j. Bid Opening and Bid Evaluation

(i) Bids shall be opened in public.

(ii) Evaluation of bids shall be made in strict adherence to the criteria declared in the bidding documents and contracts shall be awarded to the lowest evaluated bidder who meets the qualifying criteria stated in the bid documents.

(iii) Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.

(iv) No bidder shall be rejected on the basis of a comparison with the employer's estimate and budget ceiling without ADB's prior concurrence.

(v) A contract shall be awarded to the technically responsive bid that offers the lowest evaluated price and no negotiations shall be permitted.

(vi) Price verification shall not be applied.

k. Rejection of All Bids and Rebidding

43. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

l. Participation by Government-owned enterprises

44. Government-owned enterprises in Georgia shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the contracting authority. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.

m. Right to Inspect/Audit

45. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

n. Fraud and corruption

(i) The Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

(ii) ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, an ADB-financed contract.

46. For purposes of the provisions in (a) and (b) above, the definitions of the terms "fraudulent practice", "corrupt practice", "collusive practice", and "coercive practice" are the definitions given in ADB's Procurement Guidelines.

o. Conflict of Interest

47. ADB's rule in respect of "Conflict of Interest" as stipulated in ADB's Standard Bidding Documents for Procurement of Goods, Civil Works, and Plant-Design, Supply and Install shall be applicable.

p. Disclosure of Decision on Contract Awards

48. At the same time that notification on award of contract is given to the successful bidder, the results of bid evaluation shall be published in a local newspaper, or a well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each Bidder who submitted a Bid, (ii) bid prices as read out at bid opening; (iii) name of bidders whose bids were rejected and the reasons for their rejection, and (iv) name of the winning Bidder, and the price it offered, as well as duration and summary scope of the contract awarded. The executing agency/implementing agency/contracting authority shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

4. Review of Contract Modifications

49. ADB will review contract modifications in accordance with the procedures set forth in the loan agreement between the Borrower and ADB.

D. Consultant's Terms of Reference

1. Outline Terms of Reference for the Management Contractor

a. Background

50. United Water Supply Company of Georgia (UWSCG) was created in January 2010 and is charged with responsibility of providing water supply and sewerage services in 56 services centers in Georgia. Earlier, these service centers were operating as independent water supply and sewerage companies. The service delivery was inefficient and financially unsustainable hence they were amalgamated into UWSCG. The list of towns (service centers), with the regional office locations is attached in section f of the outline ToR.

51. At present UWSCG has started managing the 56 service centers with the old staff. The operations are centralized with the planning, design, financing and procurement operations being done from Tbilisi with about 150 technical and administrative staff. There are 6 regional offices, which serve as the link between the head office at Tbilisi and the service centers. The regional offices provide troubleshooting technical assistance to the service centers. The service centers are responsible for the day to day operation and maintenance (O&M) of the water supply and sewerage system. In most places the age of the system is above 30 years and needs significant investment for improving the efficiency and quality of services.

52. Through this contract, the Government of Georgia (GoG) intends to strengthen UWSCG to make it operate as a professionally managed utility by streamlining and improving the service delivery to the people. ADB has entered into a Multitranche Financing Facility Agreement with the GoG to provide financing up to $500 million over a period of 2011-19. The proceeds of this loan are intended to be used for financing the critical capital works with a priority for investment in six towns viz. Anaklia, Kutaisi, Marneuli, Mestia, Poti and Zugdidi.

53. Improving the technical and managerial capabilities of the UWSCG is fundamental for efficient WSS service delivery. Over a three-year period, a management contractor (MC) will assist UWSCG in managing the company operations and improving the delivery of WSS services. The MC will undertake long-term capital planning and asset strengthening, procurement, supervision of capital improvement works, operation and maintenance, and financial management. At the end of the MC’s term, UWSCG will have significantly improved their capacity to deliver services, and there would be sufficient information on UWSCG for MRDI and the government to make a decision on future management plans for UWSCG. The MC fees will comprise fixed and variable components. The variable portion will be linked to a series of performance indicators and targets to ensure that services are delivered efficiently.

54. The MC will place a team of professionals at the UWSCG head office in Tbilisi, regional branches, and service centers to supervise UWSCG staff and establish appropriate management systems, processes and procedures to transform UWSCG into a well-functioning and well-managed utility. Through substituting (approximately 10 persons) top and key management staff in the UWSCG head office and regional branches, the MC will undertake the operation and maintenance of WSS systems in all the service centers with the existing staff of the UWSCG, and provide on the job training to enhance UWSCG staff capacity, and improve their management, administrative, technical and financial performance. Under the oversight of

MoRDI, the MC will implement necessary managerial, personnel, administrative and strategic changes needed to transform UWSCG into a high performing water utility.

55. Under a separate contract, GIS consultants have been engaged to develop web-based GIS database for the system assets in the six priority towns mentioned earlier, and under a second separate contract, design consultants have been engaged to develop technical designs for system improvements in the 56 service centers. The MC is required to broadly review the design report and prioritize the capital works for immediate implementation, assist UWSCG in the procurement of the works and provide quality assurance (QA) through overall construction supervision so that the assets are commissioned to provide desired performance. The MC is then expected to provide performance based service delivery using these assets.

56. **Conflict of Interest Mitigation.** The contract to be entered into with the MC will contain specific provisions to manage actual, potential or perceived conflicts of interest for the MC. Such provisions will ensure that the (i) MC's financial, contractual, organizational or other interests do not prejudice its performance during the term of the contract and (ii) MC does not obtain any unfair competitive advantage over other parties by virtue of its performance of such contract. Notably, the MC (and all affiliates thereof) will be barred from bidding on other UWSCG contracts during the term of the contract. The MC will also be prohibited from bidding on subsequent concession or sale of UWSCG.[7] This would ensure that the contractor's interests are aligned with those of GoG and it is unable to leverage its special position to gain advantage as a purchaser or concessionaire.

b. Outline Scope of Work[8]

57. The broad philosophy of engagement is described in this and succeeding two paragraphs. In keeping with the objective of making UWSCG a well-managed utility, the MC is expected to advise and assist UWSCG in setting up a utility management framework based on good and internationally accepted practices.

58. Simultaneously, the MC is also expected to demonstrate improvement in service delivery and set up good O&M practices. It is understood that since the existing systems are old, there could be a limitation in the efficiency improvement unless the assets are replaced or rehabilitated. In towns (service centers) where limited but essential capital works are undertaken, it is expected that, at a minimum, improvement in service delivery is demonstrated on account of better management of the system operations and customer relationships. Where significant investments are proposed in the prioritized towns (service centers), it is expected that the majority of the system would be replaced and hence it should be possible to improve service levels to international standards. In sum, improved management and service delivery is expected to be demonstrated across all the offices and service centers, though in different degrees. Supervision of the new works is expected to enable the MC to control the quality of construction and performance of the commissioned works.

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[7] This approach will need to be revisited during the preparation of the request for qualification (RFQ) and request for proposal (RFP) documents in consultation with the government and market participants. If MC is allowed to bid on subsequent concession or sale of the water utility, then additional conflict mitigation measures will need to be implemented. For example, the MC could be prohibited from participating in a concession or sale process unless two years have passed since the termination of its contractual relationship with UWSCG.

[8] The outline scope of work is a reference document that will be detailed and articulated by the PPP Transaction Advisory team. The actual scope of services will form a part of the conditions of contract.

59. Limited information is available regarding UWSCG's current and historical performance levels with respect to efficiency, customer service and financial sustainability. Individual consultants to be recruited shall establish performance baselines against which MC's performance shall be evaluated.

60. The detailed scope of work is outlined hereunder.

(i) **Preparation of a Business Plan for UWSCG.** The MC shall prepare a business plan for each service center and an overall business plan including a balance sheet and a profit and loss statement, for UWSCG. This will inter-alia include, but not be restricted to, planning and phasing of capital works / asset creation, financing requirements, operational revenues, revenue shortfall that would have to be supported by the government both due to inadequate tariffs and operational inefficiencies, streamlining the organizational set-up with well defined functions and responsibilities, staff capacity development and training program. The MC shall project the revenue shortfalls that will have to be covered through a Viability Gap Fund and link it with efficiency improvements through improved billing and collection and tariff revisions made by the regulator.

(ii) **Prioritizing capital works based on engineering designs.** From the perspective of optimizing the operational performance, the MC shall undertake design-proofing of the proposed designs, including the design assumptions, material and technology suggested. Accordingly, the MC shall provide recommendations to the government, through UWSCG, for prioritizing and phasing the capital works.

(iii) **Procurement of construction contractors.** The MC will oversee UWSCG's procurement process for works and goods. In particular, the MC shall provide inputs to the construction contracts to stipulate the quality of construction, testing and commissioning procedures and defect rectification process and defect liability. This is to ensure that the works are done in accordance with accepted good industry practices. Procurement under ADB's Investment Program will be handled separately, through the UWSCG's Investment Program Management office.

(iv) **Construction supervision.** The day to day construction supervision shall be the responsibility of the UWSCG staff. The MC shall oversee the UWSCG staff's project management and construction supervision practices by monitoring construction, performance testing and commissioning of the works to establish the operating performance benchmarks. For ADB Investment Program towns, a separate construction supervision team will be appointed.

(v) **Operations and maintenance.** The MC shall oversee the operation and maintenance (O&M) of all the service centers undertaken by the existing staff of the UWSCG. The MC shall benchmark system performance of the existing system, and also after commissioning the new works.

(vi) **Performance review.** Performance will be reviewed at the end of every year of the management contractor by the GNEWSRC, and independent technical and financial auditor appointed by ADB.[9]

(vii) **Asset inventory and GIS.** This is currently being done for the six Investment Program towns through a separate contract. However, for other towns, the MC will oversee the development of an asset inventory and ground mapping by UWSCG that can be separately linked up with the GIS system by UWSCG.

(viii) **Consumer connections.** The MC shall examine and maximize the consumer connections for water supply and sewerage within 3 years. Appropriate performance indicators will be proposed in the contract.

(ix) **Customer database, Metering, Billing and Collection.** UWSCG has a database of its existing customers.

- At present the commercial (non-domestic) consumers are mostly metered while the domestic consumers mostly do not have meters. The consumers are not sure of the quantity of water they receive and since the tariffs are flat rates for non-metered connections, there is a lot of wastage. The MC, through UWSCG, will update the existing consumer database based on the existing connections.
- The UWSCG is embarking on a plan to install meters. The MC will advise UWSCG on the meter installation program.
- The MC will assist UWSCG introduce a simple but effective computer based billing and collection system that can be integrated with the web-GIS under development.
- The Government's policy supports disconnection of illegal connections. Further the current law allows disconnection of electricity for non-payment of water bills. Improving the billing and collection efficiency will be an important performance criterion for the MC and this improvement can be done without the need for heavy investments, even if flat rate tariffs are to continue where metering is not carried out.

(x) **Tariff and Revenue Shortfalls.** The MC shall oversee the development by UWSCG of WSS tariffs to be approved by GNEWSRC. The MC along with UWSCG shall coordinate with the GNEWSRC as needed. The Government has a viability gap funding provision for ensuring the financial sustainability of the service providers and would like to bring in full cost recovery tariffs at the earliest. The business plan prepared by the MC for each service center will clearly indicate the revenue shortfalls to be supported through viability gap funding. The MC should prepare a plan to reduce the revenue shortfalls through efficiency improvements and tariff revisions approved by the GNEWSRC.

(xi) **Staff capacity development.** The MC shall provide an on the job training plan to enhance the capacity of the UWSCG staff in improving its management, administrative and technical performance. In addition, the field staff will be provided short structured training programs to improve their specific skills related

[9] Performance indicators and targets are currently being developed by a PPP Transaction Advisory team as a part of Project 1 (tranche 1 loan).

to their responsibility. Performance indicators for capacity development will be proposed in the contract.

(xii) **Customer relationship.** The MC shall oversee the establishment of a system for recording of complaints and rectifying them in a reasonable time depending on the nature of the complaint. This will be a part of the office management system to be introduced at the service centers. Performance indicators will be proposed in the contract.

(xiii) **Communications strategy.** As a part of its commercial operations, the MC shall propose an effective communications strategy for improving the customer relationship.

c. Time Lines and Deliverables

No.	Deliverable	Time line (from contract start date)	Remarks
1	Inception Report	1.5 months	Provides a confirmation of the Work Plan (submitted in the proposal), staffing arrangements and field placement with responsibilities.
2	Bi-monthly MIS Report	Every two months, starting from the 4th month	This will include a narrative of the progress on all the Work Plan activities especially the critical issues on (i) construction progress; (ii) performance benchmarking; and (iii) Business Plan preparation/execution.
3	Preliminary Business Plan for UWSCG	6 months	Expected to be indicative based on available information, identifies the gaps that need to be filled up by detailed information collection and will be revised.
4	Priority Investment Plan for each Service Center	9-15months	This will be based on a detailed assessment of each of the service centers, identifying the investment needs, presenting a benefit-cost analysis from performance improvement considerations and will form the basis for GoG to commit funding for capital works. Considering that there are 56 SCs, the outputs are expected to be prepared between 9-15 months for a continuing discussion.
5	Detailed Business Plan for UWSCG	18 months	This will be based on the earlier three outputs and will provide the basis of operations for the remaining contract period. The GoG will provide further investment commitments.

No.	Deliverable	Time line (from contract start date)	Remarks
6	Asset Inventory and Mapping Report for each Service Center	24-30 months	Initial phase of construction and rehabilitation is expected to be over by 24 months. Based on the field assessment done in the first 30 months, this will contain a detailed inventory of the assets and their condition, survey based maps for underground water pipelines, sewers and manholes etc. to feed into the GIS.
7	Quarterly Performance Report for each service center	From 33rd month till end of contract	This will form the basis for assessing the performance of the MC as per the agreed performance indicators. The report should highlight the status of compliance, reasons for deviation and suggestion for any critical investments that may be preventing achieving the performance.
8	Draft Final Report for each Service Center	6 months before end of the contract	This will contain the following: (i) updated Business Plan including future investment needs for a design horizon of 30 years (ii) Updated Asset Inventory and GIS Mapping; (iii) Performance Benchmarking Report; (iv) Summary achievements of the Management Contract; and (v) Proposed Future Road Map in consultation with UWSCG and GoG.
9	Handover of managerial responsibilities	3 months before end of contract	-
10	Final Report	2 months before end of the contract	-

d. Indicative Team Profile

No.	Person	Preferred Minimum Qualifications and Experience	General Roles and Responsibilities	Reports to	Head Off.	Reg. Off.
1	Senior Manager	Degree in Civil, Public Health, or Industrial Engineering with a Master's in Finance or Management. Minimum 15 to 20 years experience in design and Project Management on similar projects.	Overall Company Management. Coordinate and manage the company. Liaise with UWSCG. Submit monthly efficiency reports.	-	1	
2	Senior Design and Maintenance Engineer	Bachelor's degree in Civil, Public Health, or Environmental Engineering. Minimum 15 to 20 years experience in design of water supply systems including treatment plants.	Overall Technical Design Review. Prepare Designs, Specifications, and Maintenance Documents for all water supply subprojects.	1	2	
3	Construction and Rehabilitation Engineer	Postgraduate degree in Civil Engineering. Minimum 10 to 15 years experience in Design, Construction and Rehabilitation of structures mainly related to Water Supply and Sanitation.	Construction Management. Supervise Construction, Rehabilitation and Maintenance Works at a National Level	1	4	
4	Maintenance Trainer Supervisor	Degree in Mechanical, Industrial Engineering. Minimum 10 to 15 years experience in Maintenance Engineering related mainly to water supply and sanitation works. Training experience in an existing Water Network.	Overall capacity development. Responsible for Capacity Development at a Regional Office Level.	1	2	
5	Senior Maintenance Engineer	Degree in Mechanical, Industrial Engineering. Minimum 15 to 20 years experience in Maintenance Engineering related mainly to water supply and sanitation works in an existing Water Network. At least 5 years as maintenance of WTP/STP, 5 years as Area Coordinator, 5 years as Operations manager.	Service Center Supervision from Regional Office			3
6	Maintenance Supervisors	A qualification in Maintenance. Minimum 10 to 15 years experience in Maintenance related mainly to Water Supply and Sanitation Works.	Regional Technical Supervisor. Responsible for Global Regional Office Water Installations Maintenance	5		3
7	Operations Engineer (WTP/STP) - construction, O&M	Degree in Civil, Public Health, or Environmental Engineering. Minimum 5 to 10 years experience in operation of water supply systems including treatment plants.	Service Center Treatment Plants. Responsible for Operations & Maintenance of the WTP/STP located at a Regional Office Level.	5 and 6		6
8	Operations Engineer (Distribution) - construction, O&M	Degree in Civil, Public Health, or Environmental Engineering. Minimum 5 to 10 years experience in operation of water supply including distribution systems.	Service Center Water Distribution. Responsible for Operations & Maintenance of the Water Supply Distribution Network located at a Regional Office Level.	5 and 6		6
9	Operations Engineer (Sewerage) - construction, O&M	Degree in Civil, Public Health, or Environmental Engineering. Minimum 5 to 10 years experience in operation of water supply including sewage systems.	Service Center Sewage Collection System. Responsible for Operations & Maintenance of the Sewage Network located at a Regional Office Level.	5 and 6		6
10	Office Manager (Billing, Accounts, Complaints)	Economics, Finance or Accounting Background	Service Center Office Operations	5		6
	Total persons				**9**	**30**

e. List of Service Centers of UWSCG

Regional Center	Town / Service Center	Area		Urban Pop	Urban Pop
		Municipal	Urban	2002	2010
		km2	*km2*	*Nos*	*Nos*
UWSCG-Kutaisi	Kutaisi	70	70	183,691	189,320
	Samtredia	364	364	31,690	31,454
	Zestafoni	423	17	25,598	25,344
	Tskaltubo	700	47	16,801	16,806
	Tkibuli	479	7	14,454	13,965
	Chiatura	442	5	13,832	13,487
	Khoni	429	29	11,221	11,070
	Terjola	357	-	5,487	5,417
	Bagdati	815	18	4,714	4,624
	Vani	200	-	4,630	4,542
	Kharagauli	914	-	2,373	2,338
UWSCG-Senaki	Ozurgeti	675	30	27,488	27,026
	Lanchkhuti	533	-	7,849	7,525
	Chokhatauri	834	5	2,123	2,025
	Zugdidi	692	21	68,558	70,571
	Poti	44	40	46,161	47,697
	Senaki	521	-	27,703	27,838
	Tsalenjikha	647	-	13,745	13,755
	Abasha	320	60	6,420	6,238
	Martvili	880	18	5,609	5,596
	Khobi	736	368	5,522	5,489
	Chkhorotsku	546	22	5,039	4,999
	Mestia	3,300	25	2,559	2,595
	Oni	1,359	4	3,340	3,071
	Ambrolauri	1,142	4	2,535	2,327
	Tsageri	453	-	1,913	1,916
	Lentekhi	1,344	-	1,739	1,725
UWSCG-Telavi	Telavi	1,140	27.0	21,582	21,456
	Sagaredjo	1,554	24	11,920	12,037
	Gurjaani	846	-	10,023	9,675
	Kvareli	35	-	9,035	8,880
	Akhmeta	2,208	30	8,544	8,540
	Signaghi	1,251	4	8,174	8,069
	Dedoflistskaro	3,277	6	7,628	7,519
	Lagodekhi	890	-	6,567	6,650
UWSCG-Akhalkalaki	Akhaltsikhe	1,010	9	22,591	23,573
	Borjomi	1,189	75	20,347	19,829
	Akhalkalaki	1,235	4	9,802	10,051
	Ninotsminda	1,354	2	6,287	6,294
	Aspindza	825	2	3,242	3,185
	Adigeni	800	2	2,347	2,314
UWSCG-Gori	Dusheti	27	12	10,809	10,695
	Akhalgori	1,011	-	2,440	2,415
	Tianeti	906	-	4,036	3,781

Regional Center	Town / Service Center	Area		Urban Pop	Urban Pop
		Municipal	Urban	2002	2010
		km2	*km2*	*Nos*	*Nos*
	Kazbegi	1,082	-	1,731	1,634
	Gori	1,280	13	49,137	45,136
	Khashuri	650	-	38,143	37,610
	Kaspi	823	803	15,233	15,162
	Kareli	15	3	10,722	10,555
UWSCG-Bolnisi	Marneuli	235	-	23,526	24,803
	Bolnisi	801	7	17,640	18,352
	Dmanisi	1,199	-	3,426	3,456
	Tetritskaro	1,174	4	6,686	6,794
	Tsalka	1,051	-	2,285	2,407

2. Outline Terms of Reference for the Detailed Engineering Consultants[10]

a. Overview

61. Georgia aims to improve the delivery of water supply and sanitation (WSS) services through effective implementation of legal, economic, and financial frameworks for local self-governance. The Asian Development Bank (ADB) interim operational strategy (2008 to 2009) for Georgia was developed in line with the government's agenda, and identified development of the country's municipal infrastructure as a key contributor to sustainable economic growth, with the crosscutting themes of governance, regional cooperation, and environmental sustainability. Consequently, ADB's support to the water supply and sanitation sectors has grown since 2008 through the municipal services development project.

62. The Government proposes to improve and expand WSS services across urban centers by leveraging donor and private sector funds, and has requested ADB to develop (i) an urban WSS sector strategy to assist it with planning long-term investments; (ii) a regulatory framework and establish urban WSS tariffs to improve service delivery and ensure sustainability of WSS services; and (iii) an investment program to be financed through a multi-tranche financing facility (MFF). To ensure adequate maintenance of WSS systems improved under the proposed investment program, the government requested ADB to develop a WSS utility management system. The system will assist staff of the United Water Supply Company of Georgia (UWSCG) plan improvements and maintain infrastructure created under the proposed investment program.

63. Georgia will initially finance the detailed design preparation for the Investment Program and will apply for retroactive financing as part of the ADB loan.

b. Sector Development Issues

64. **Access to services.** Water supply is largely based on groundwater sources, and abstraction levels are high. Nonrevenue water is estimated at 75% or higher due to ageing infrastructure, with no replacement or rehabilitation investments made since the systems were constructed. The systems were designed for high supply levels to consumers—for example, Tbilisi supplies water at 800 liters per capita per day—with no emphasis on water conservation. Sewer systems cover parts of large towns (>50,000 persons), but there is no sewage treatment. Large parts of the population depend on pit latrines or septic tanks. Sewage is discharged into water channels and rivers, which affects downstream drinking water quality. Investments were prioritized and made based on the urgency of the requirement; consequently, the impact was not necessarily tangible and investment sustainability was questionable. This also has health implications, especially for vulnerable groups such as children and women.

65. **Environmental management.** Four river basins (Alazani, Inguri, Kura and Rioni) are severely affected by direct sewage discharge from the towns. Lack of sewage treatment facilities, nonfunctional sewage treatment plants, and dilapidated sewer systems result in sewage percolation into the ground or direct discharge into surface water. Of particular importance is the sewage discharge into Kura River, which is an international waterway flowing into Azerbaijan from Georgia. Environmental management of the river through improved

[10] This outline terms of reference was included in the request for proposal to appoint design consultants for completing detailed engineering designs for six Investment Program towns.

wastewater management in the riverside towns will specifically benefit downstream water abstraction and irrigation facilities.

66. **Institutional issues.** In 2009, the government undertook a reform path to correct institutional anomalies, and in June 2009, it consolidated 66 water companies in the country into three regional water companies—east, west, and Ajara (for the Autonomous Region). This decision was based on the recommendations of a United States Agency for International Development-assisted TA to improve the sector's efficiency. In June 2009, the government created the Water Supply Regional Development Agency (WSRDA) under the Ministry of Regional Development and Infrastructure (MORDI) to manage sector reforms and oversee the operations of the water companies. Subsequently, in February 2010, the WSRDA was merged with the east and west water companies to form the UWSCG. UWSCG is expected to cooperate closely with each regional governor's office, local government units, and the Municipal Development Fund (MDF) to develop the WSS sector.

67. **Sustainable financing.** Investments in the WSS sector started in 1996, with support from the World Bank. Investments are largely donor financed and approximately $350 million has been invested to date. Funds were channeled through the MDF with onlending to local governments, except in Batumi where the German development cooperation through KfW is developing infrastructure directly through the local government. Cost recovery on investments is low, and billing to recover operational costs is lower than 50% in most towns. With the consolidation of water companies, the assets created through MDF and accrued liabilities by local governments are being transferred from local governments to the regional water companies.

68. **External assistance.** In addition to ADB, the World Bank, the United States Agency for International Development, the German development cooperation through KfW, the European Bank for Reconstruction and Development (EBRD), the Swedish International Development Cooperation Agency, and the Millennium Challenge Corporation have supported the government's initiative to improve water and sanitation in urban centers. Focused and large-scale investments in the sector were through: (i) the Millennium Challenge Corporation, EBRD, and the Swedish International Development Cooperation Agency in the cities of Kutaisi, Borjomi, Kobuleti, and Poti; and (ii) the German development cooperation through KfW in Batumi. Support was primarily based on requests from the government and focused on improving the local economy in the target cities. ADB and World Bank support through the MDF covers the entire country and is focused on improving priority infrastructure.

69. **Reform agenda.** While continuing to mobilize infrastructure investment in WSS services, the Government also undertook a reform path to set right institutional anomalies and establish a strong premise for improving service delivery. The government has articulated its reform agenda in its Water Supply and Wastewater Sector Development Policy[11]. There is a clear emphasis on improving infrastructure and service quality; cost recovery, financial sustainability of UWSCG, and operational efficiencies; demand management through reduced water losses; service access to the poor and vulnerable; a legal and regulatory framework; and sector management through modern management systems—management information systems and geographical information systems.

70. **Ongoing efforts.** UWSCG is internally developing the consumer database and management information systems to improve revenue and expenditure management. ADB's

[11] Government of Georgia. 2009. *Water Supply and Wastewater Sector Development Policy.* Tbilisi (October draft).

support through the policy and advisory technical assistance (PATA) will help develop an urban WSS sector strategy and ensure that reforms address institutional, financial and environmental sustainability of services, and are oriented to meet the Government's long-term objective of improved WSS services across the country.[12] ADB is also assisting the Government in preparing the investment program to be financed through the MFF.[13]

c. Scope of Work

i. Background

71. The proposed Investment Program will specifically address (i) basic urban infrastructure and services management in the provincial capitals and secondary towns; (ii) institutional issues associated with basic urban services; (iii) capacity development of MORDI and UWSCG staff to deliver services efficiently; and (iv) improved financial management of institutions to facilitate efficient service delivery. Trunk infrastructure traversing the towns/cities will provide poor communities with access to basic services—potable water and safe sanitation. By developing institutionally and financially sustainable services, the proposed investment program will introduce good governance features that will have a trickle-down effect and support pro-poor growth. The Investment Program will be implemented in various tranches; each tranche containing technically feasible and economically viable subprojects developed by UWSCG and agreed with ADB.

72. The scope of work under the consultancy services is to (i) assess the technical, financial, economic, and environmental feasibility of subprojects; (ii) conduct surveys and investigations; (iii) develop hydraulic models; and (iv) prepare detailed designs, drawings, cost estimates, specifications, and bid documents for implementing water supply and sanitation schemes in the Investment Program financed by the MFF.

73. Initial tranches will comprise the following towns:

1. Package A: Towns include Mestia, Zugdidi, Anaklia, and Marneuli. Feasibility studies are currently being developed through an ADB technical assistance grant and will be made available to the consultants during the inception stage. The consultants are expected to undertake works identified in para 12 above, except feasibility studies.
2. Package B: Towns include Kutaisi and Poti. The consultants are expected to undertake all works identified in para 12 above.

ii. Outline Scope of Work

74. The Consultant should read the below tasks along with sector specific tasks. Feasibility studies will not be required for Package A towns. All tasks will apply to both Package A and B towns.

(i) Feasibility

- Study the development plans prepared by the UWSCG for each Package B town and assess the potential for development. This will include reviewing the available data,

[12] ADB. 2010. *PATA for Developing an Urban Water Supply and Sanitation Sector Strategy and Regulatory Framework for Georgia*. Manila.
[13] ADB. 2010. *PPTA for Preparing a Multitranche Financing Facility for the Georgia Urban Services Improvement Investment Program.* Manila

maps, studies and other related documentation to have a better understanding of the water supply and sanitation systems before commencing field work.

- Estimate the current and projected population for the year 2040 taking into account census data, city development plans, and other economic and planning aspects influencing population growth.
- Study the existing water supply and sanitation systems in Package B towns to identify deficiencies or gaps in the availability and adequacy of infrastructure. This shall include technology aspects, supply versus demand, level of services, public aspirations, sustainability, optimization of resources, amount of non-revenue water, institutional constraints, etc.
- Agree on preliminary design criteria for preparing water supply and sanitation schemes with UWSCG in conformity with standards agreed with the UWSCG, and based on national and international standards. The overall objective of water supply and sanitation (WSS) services should be to ensure service regularity, coverage to all population, and ensure potable quality of water supplied and sewage treated to agreed standards.
- Based on the study and the assessment of existing water supply sources, determine the quantity of water required considering the water supply schemes presently being implemented or proposed to be implemented in Package B towns.
- For identified water supply sources, determine system requirement for headworks and raw water transmission. Identify water pipeline route, size and material.
- Based on water supply sources identified, determine appropriate water treatment technologies, and where large water treatment plants are required, identify land and ownership for resettlement planning.
- Review the need and extent of water distribution system rehabilitation and/or replacement, expansion to uncovered areas, and water supply approach to poor settlements. Water distribution planning should be based on tentative hydraulic zoning, which will be confirmed subsequently based on the hydraulic modeling exercise.[14]
- 100% metering of bulk water flow and domestic, commercial and industrial properties is envisaged. Consultants should plan for district metering zones using the approach, which would also assist in isolating zones to assess non-revenue water and rectify system.
- Review existing sewerage and sanitation arrangements, and determine the suitability of operating existing systems, specifically the sewage treatment plants. The Consultant should populate the usage of different night-soil disposal methods and assess the suitability of connecting to a sewer network based on population density, location of communities, and access to toilets by the poor.
- Assess existing quantities of sewage generated, estimate future quantities, and analyze options for sewage collection, treatment and disposal. The Consultant should evaluate the possibility of decentralized sewage treatment and disposal based on quality of influent sewage, sewage quantity, and easy availability of suitable sites for locating treatment plants.

[14] Water distribution system will include network of water lines, appurtenances, storage reservoirs, and pumping stations.

- Review the need and extent of sewer system rehabilitation and/or replacement, expansion to uncovered areas, and approach to sewage disposal from poor settlements. Sewer network planning should be based on tentative hydraulic zoning, which will be confirmed subsequently based on the hydraulic modeling exercise.[15]
- Prepare initial environmental examinations (IEEs) or environmental impact assessments (EIAs) for each subproject and develop an environmental management plan (EMP). The environmental safeguard compliance planning will be based on the Investment Program's Environmental Assessment and Review Framework.
- Prepare resettlement plans for each subproject based on the Investment Program's Resettlement Framework.
- Prepare subproject cost estimates to include: (i) infrastructure capital and operation and maintenance (O&M) costs for identified capital improvement (including replacement and expansion) and rehabilitation proposals; (ii) EMP costs; and (iii) resettlement costs. .The infrastructure capital cost estimates should be based on the current market prices and should include road restoration charges wherever necessary.
- Prepare indicative contract packages and include, where possible, water and sewerage systems. Also indicate in the contract packages, system features and procurement method.
- Develop base maps and network overlays to indicate existing and proposed WSS systems. Also develop bulk facility layouts based on land cadastral maps to define jurisdiction of plants, reservoirs and pumping stations.
- Develop annual cash flows for following 5 years to include revenue and expenditure estimates. Revenue estimates should be based on existing and proposed tariffs, other revenue sources of the UWSCG, customer base, and collection efficiency, etc. Expenditure estimates should include staff and establishment costs, electricity, chemicals and consumables, debt servicing, etc.
- Prepare financial and economic analyses including a financial internal rate of return and an economic rate of return for each subproject.

(i) Surveys and Investigations

- Conduct necessary field tests and collect all data required for preparing detailed designs. All necessary instruments to carry out the study shall be arranged and operated by the Consultant at its own cost.
- Verify all details of each proposed subproject, the physical and site conditions, the execution methodology, etc. All data utilized in preparing the detailed design shall be presented indicating the source of the data and also the basis of assumptions, if any.
- Each service center shall indicate the subproject sites and their available data. The Consultant shall be responsible for verifying these data. The Consultants should verify the quality of available data and confirm whether data is reliable and scientifically derived, and whether it is suitable for detailed engineering designs.

[15] Water distribution system will include network of water lines, appurtenances, storage reservoirs, and pumping stations.

- Develop base maps and detailed WSS network layout based on pipeline corridor and condition surveys. A GIS-based WSS utility management system is currently being developed through ADB TA grants. Base maps pipeline corridor and condition details should be available for Package A towns. Consultants will use the outputs to conduct hydraulic modeling and designing WSS systems.
- Conduct detailed total station surveys, as needed, for subproject areas to facilitate contour development, and preparation of a bulk facility layout plan along with reduced levels based on permanent benchmarks.
- Conduct soil tests according to approved standards in consultation with UWSCG to determine design parameters. At locations proposed for important installations like pump houses, reservoirs, etc., recommendations from a Geotechnical Specialist should be furnished in the soil report and should cover all design aspects.
- Conduct hydrogeological tests to determine ground water table profile and abstraction rates. The tests should be carried out for ground water sources and at location of bulk facilities – treatment plant, reservoirs, etc. – to support structural designs including foundations. The tests should be accompanied by a recommendation from a Hydrogeoligist.
- Conduct a survey of other service utilities including but not limited to electricity, telecom, gas, etc. to determine shifting of utilities and associated costs in relation to construction of the water supply and sewerage system.

(i) Detailed Designs, Cost Estimates, Drawings and Specifications

- Prepare preliminary and detailed engineering designs, rate analysis, drawings, cost estimates, and bills of quantities for water supply and sanitation subprojects based on surveys, investigations and feasibility studies.
- Develop appropriate design approaches and confirm standards with the UWSCG, to be adopted for the Investment Program and based on international and national design standards.
- The specifications developed should meet requirements for international competitive bidding.
- Prepare land plan schedules indicating the locations of underground and overhead tanks as well as pumphouses with cadastral details to facilitate land acquisition. The Consultant shall select lands belonging to the service center or other government land to the extent possible.
- The drawings and designs shall include a general arrangement drawing and detailed drawings of all components in sizes A0, A1, or A3. All drawings shall be generated using the latest AutoCAD version.
- All plans, longitudinal sections, and cross sections should be submitted for all alignments in the subproject Plans shall be plotted at 1:1,000 scale; longitudinal sections shall be plotted at 1:1,000 horizontal and 1:100 vertical scales; and cross sections shall be plotted at 1:200 horizontal and 1:100 vertical scales.
- The Consultant shall develop detailed rate analysis for every item in the bill of quantities. Market rates should be adopted and derivation of rates accurately described. Only approved rates should be used to estimate costs.

- Prepare a subproject implementation schedule for execution.

(i) Bid Process Management

- Prepare prequalification documents based on ADB standard bidding documents (SBDs) for proposed subprojects and assist the UWSCG invite statement of qualifications from bidders.
- Assist the UWSCG evaluate the submissions and shortlist contractors for bidding.
- Prepare international competitive bidding (ICB) and national competitive bidding (NCB) documents based on the subproject requirement, and assist UWSCG in inviting bids from short-listed contractors.
- Assist the UWSCG in pre-bid conferences.
- Assist UWSC in bid evaluation and prepare bid evaluation reports for the Tender Committee and consequent review by ADB.
- Assist the UWSCG in contract negotiations and award to the lowest evaluated and substantively responsive bidder for each contract.

d. Sector Specific Scope of Work

i. Preparation of City Base Maps

75. Aerial photography and GIS-based maps are available for Investment Program towns. The Consultant should overlay all relevant information on these maps. UWSCG will provide the Consultant access to the photographs and maps. Data from corridor surveys for pipelines should be overlaid. Additional data to be incorporated will include prominent landmarks, name of localities, etc. Additional surveys shall be done in case of open areas, which are not encompassed or crossed by roads to mark open areas and boundaries of the towns. Approximate areas of Investment Program are listed below.[16]

No.	Name of City	Area (Km^2)
1.	Zugdidi	22
2.	Anaklia	10
3.	Mestia	5
4.	Marneuli	28
5.	Poti	65
6.	Kutaisi	55

76. The Consultant should note that GIS maps are proposed to be prepared by a separate agency for the Investment Program cities and will be made available to the Consultant once the maps are ready. The service centers and local consultants are also preparing some pipeline inventory maps for Investment Program towns. These would also be made available to the Consultant.

[16] The area is indicative and the exact area to be covered will be finalized in consultation with UWSCG before commencing surveys.

ii. Topographical Surveys

77. The final scope of services will be discussed and finalized during contract negotiations with the successful Consultant. All topographical surveys have to be carried out with respect to the nearest benchmark approved by the UWSCG. The Consultant is expected to submit the list of surveys to be carried out along with the finalized scope of work to the UWSCG and the respective service center before proceeding with the surveys. The broad scope of work for topographical surveys is described below.

- Necessary survey work has to be carried out using total station equipment with its accessories. The UWSCG expects the Consultant to plan its survey work in such a way that it can start the designs as quickly as possible. The approach, methodology, and work plan should contain a detailed plan for conducting the required surveys. The survey work plan should be discussed and approved by the UWSCG during the preparation of the Inception Report.
- The surveys may be conducted by the Consultant either in house or with a survey firm which has at least 5 years of experience in doing similar type of work. The UWSCG should be kept informed about the use of survey firms and the progress of surveys.
- Survey delays would be attributable to the Consultant unless local circumstances hinder the survey progress in the field. These should be stated in writing.

(i) Pipeline Corridor and Asset Condition Survey

78. Indicative guidelines for WSS pipeline corridor and asset condition survey are detailed below:

- The surveys shall be carried out along all pipeline alignments and streets of Investment Program towns. Where data is provided by UWSCG from the ADB TA project, such surveys will not be required. The surveys shall capture existing topographical features like road boundary limits, types and width of the road, trees, storm water drains beside the roads, telephone poles, power poles, huts, bus stops, existing water lines, and related features such as valves, air valves, wells, pumps, intake points and all man-made features within the survey limit.
- If the pipe alignment runs along open areas, the survey shall be conducted for a 15m. width. The levels shall be taken at every 50m for plotting longitudinal sections. Cross sections should be taken at every 50m interval.
- A full inventory map of the existing water supply and sewerage system needs to be prepared. This shall include intake works, treatment plants, pumphouses, wells, valves, etc. Separate maps have to be provided for existing water supply facilities and underground sewer systems.

79. Water supply asset inventory will cover:

- Town Grid: Pipe alignment, pipe age, pipe material, pipe diameter, pipe depth, manholes (visible and under asphalt), valves, pressure reducers, pumps and pumping stations, chambers, gates, switches, hydrants, anomalies (e.g. bad gates, blocked elements), unregistered/illegal connections not mapped, and borehole supplying districts.

- Major Feed lines: Pipe alignment, pipe age, pipe material, pipe diameter, pipe depth, and asset condition
- Intake and treatment facilities: Coordinates, location, and dimensions.

80. Sewerage asset inventory will cover:

- Town Grid: Pipe alignment, pipe age, pipe material, pipe diameter, pipe depth, manholes (visible and under asphalt), invert levels at manholes, and unregistered/illegal connections not mapped.
- Trunk sewers to treatment plant: Pipe alignment, pipe age, pipe material, pipe diameter, pipe depth, and asset condition
- Treatment facilities: Coordinates, location, and dimensions.

(i) Area Surveys

81. In addition, the Consultant shall be required to conduct surveys for areas where the main lines are in open areas and the countryside for new and existing treatment plants. The scope of works is described below.

82. Detailed plans including the footprints of the buildings and any other structures shall be surveyed and plotted on a scale of 1:500. The survey shall also pick up all other visible features within the earmarked area such as trees, poles, manholes, etc. The survey shall also include leveling, cross sections, and longitudinal sections of alignments at regular intervals as necessary to generate a contour map of the area with 0.5m contour intervals.

83. Area surveys shall be carried out for proposed and existing location of water and sewage treatment plants on a grid of 10m x 10m. All existing features should be covered such as building areas, pumphouses, clear water tanks, channels, etc. with levels and measurements.

iii. Geo-technical Investigation

84. The Consultant should determine the actual type and extent of geotechnical investigations after discussion with UWSGC. The investigations list should include justifications and submitted to UWSCG for approval. The general types of Investigation required are listed below:

- Trail pits at different depths
- Auger boring
- Bore holes
- Laboratory Tests

iv. Hydrogeological Investigations

85. The following is a minimum amount of work the Consultant should conduct to investigate site conditions.

- Prepare a site and project description.

- Prepare a map showing the regional setting.
- Conduct field Investigations that include test borings to determine the subsurface geology.
- Analyze data to determine the impact on nearby surface water and groundwater resources.
- Evaluate the water quality suitability and evaluate the chemical quality of water in the excavation.
- The investigation report should document existing site conditions and determine if the site is suitable for project works.

v. Hydraulic Modeling

86. The Consultant will prepare a hydraulic model for each system in order to gain a full understanding of its hydraulic behavior. The model shall be a tool to plan infrastructure improvements, develop operational maintenance strategies, and manage the system proactively. The Consultant's model will include:

- Model building
- Field testing
- Model loading and allocation
- Model calibration
- Network analysis
- Maintenance

vi. Water Supply

87. The Consultant shall prepare technical and economical solutions for the overall improvement of the water supply systems in Investment Program towns. The solutions shall meet the present demand as well as future demand in 2040 in a cost effective and sustainable manner. Outline scope of work is detailed in Section III-B. The following are indicative activities for water supply design and estimates..

(i) Water Source and Demand Estimates

- Conduct technical, economic, financial, and environmental studies of water sources – surface and ground – in Investment Program towns and determine options to supply each town to meet long-term water demand for 2040.
- Conduct hydro-geological studies and investigations to ascertain groundwater potential and determine the safe aquifer yield till 2040 for tranche 1 towns.
- Finalize water sources and develop designs, drawings, cost estimates and specifications for headworks and raw water transmission system.

(i) Water Treatment

- Conduct water quality surveys at the source and consumer points (number and location to be agreed with UWSCG) to determine type of treatment required.

- Analyze options for selecting the most technically feasible and economically viable solution. The analysis of options would delineate different alternatives and include a simulation analysis based on life cycle costs for implementation.
- Conduct a system diagnosis for existing water treatment plants, and develop preliminary technical designs and drawings to upgrade the water treatment plants.
- Carry out required surveys and investigations – topography, soil, hydrogeological, etc.
- Develop process design and design criteria with flow sheets, works layout, hydraulic level and diagram, and piping as well as fully automated arrangements and SCADA system for executing turnkey contracts.
- Prepare general arrangement drawings for water treatment plants including unit sizes, level of structures, equipment disposition with automation and layout plans, structural, masonry, and architectural drawings with site plan as well as civil and ancillary works.

(i) Water Distribution Network

- Review existing water supply distribution network maps prepared by UWSCG or other consultants, supplement as necessary, and conduct the location and condition surveys.
- Prepare GIS-based pipeline network maps for the towns on the base maps supplied by the UWSCG. If the GIS base maps are not supplied by the UWSCG, the Consultant should prepare base maps and pipeline condition and network maps.
- Undertake computer analysis and hydraulic modeling of the existing water supply networks. Identify any existing hydraulic constraints and incorporate rectifications, if necessary, in the proposed subproject.
- Conduct a power and water audit of the water supply system. Incorporate efficiency improvements in the subproject design where appropriate.
- Provide workable solutions for reducing non-revenue water by introducing leakage control, metering, measurement, monitoring, improved maintenance practices, pressure control, etc. Incorporate detailed proposals and action plans for conducting regular water audits and leak detection studies.
- Prepare detailed estimates for fixing water meters for each household, institutional, commercial, and industrial connection to achieve 100% metering.
- Prepare a master plan for water supply system in the Investment Program towns from which packages for detailed engineering design and estimation should be derived.

vii. Sewerage and Sanitation

88. The Consultant shall prepare technical and economical solutions for the overall improvement of the sewerage systems in Investment Program towns. The solutions shall meet the present demand as well as future demand in 2040 in a cost effective and sustainable manner. The following are indicative activities for sewerage system design and estimates.

(i) Sewage Treatment Plants

- Conduct wastewater sampling and analysis, to determine the quality and volume of sewage presently discharged.
- Prepare scope for abandonment and/or demolition of old and dilapidated facilities and prepare plans for their replacement.
- Conduct a sampling and analysis program of the receiving water body where sewage treatment facilities are to be located. Propose suitable technology for treating sewage based on principles of cost effectiveness, reliability, and compliance with international effluent discharge standards (standards to be agreed with UWSCG).
- Carry out required surveys and investigations – topography, soil, hydrogeological, etc.
- Develop process design and design criteria with flow sheets, works layout, hydraulic level and diagram, and piping as well as fully automated arrangements.

(i) Sewer Network

- Identify major wastewater producers and pollution sources that may require additional treatment prior to discharge to the public sewers. Recommend appropriate actions.
- Evaluate performance of pumping stations by conducting a power audit and the impact on energy efficiency. Develop suitable solutions to collect and discharge sewage based on hydraulic modeling and zones.
- Prepare a master plan for sewerage system in the Investment Program towns from which packages for detailed engineering design and estimation should be derived.

viii. Environmental Assessment

89. The Consultants will update existing environmental assessments in the detailed design stage, and will prepare IEEs and/or EIAs for new subprojects, where required, to comply with the Investment Program's environmental assessment and review framework. Specific tasks include:

- Conduct environmental quality monitoring (like ambient air and noise, as well as water quality).
- Update IEEs/EIAs and EMPs for Package A towns during the detailed design stage.
- Ensure that all new subprojects follow the criteria in the environmental subproject selection guidelines. Classify all new subprojects in accordance with ADB's classification system by conducting Rapid Environmental Assessment.
- Conduct EIAs for Category A and IEE for Category B subprojects. Approval of the IEE/EIAs is a condition precedent for contract award. IEEs/EIAs will be consistent with Government and ADB's Environment Policy and the Project.
- Conduct public consultations and disclosures during the IEE or EIA processes and incorporate comments in the IEE and EIA reports.

- Incorporate mitigation measures in subproject design. Appropriate mitigation measures will form part of contract documents to be implemented by contractors and UWSCG.

ix. Resettlement Planning

90. The Consultant will review and/or update any existing resettlement plans in the detailed design stage, and will prepare resettlement plans for new subprojects, where required to comply with the Investment Program's resettlement framework. Assess the impact of the scheme and determine necessary resettlement needs considering various options for avoiding or minimizing such needs. Estimate such costs of compensation including land costs. Prepare documents for acquiring land and involuntary resettlement as per the resettlement framework.

e. Deliverables

i. Detailed Design Reports

91. The Consultant shall prepare the Detailed Design Reports covering each contract package. The Detailed Design Report shall follow the requirements of the UWSCG and contain the following items.

- Background of the subproject and introduction.
- Details of subprojects taken up under the program and the packages.
- Design calculations with full back-up data.
- Maps, drawings, and database generated. The maps and drawings shall be printed on a suitable scale.
- The results of the hydraulic modeling after surveys, investigations, and analysis of alternatives.
- Final design drawings for plans and profiles showing location and size of all major features.
- Final design and drawings of the local distribution improvements integrated with new networks in map format (including digital form in GIS platform) showing all design features agreed by the UWSCG. The distribution system design shall incorporate continuous supply in different zones as per topographical and other technical requirements to be executed in phases progressively during the construction periods.

ii. Bids

92. The Consultant shall prepare bid documents for implementing each subproject in the format prescribed by the ADB. Bid documents for each package should contain full specifications and designs, drawings of the items included, conditions of contract, schedule of supplementary information to be furnished by bidders, detailed invitation for bids. The bid documents, cost estimates and schedules shall be prepared in sets according to the different packages approved by the UWSCG.

iii. Schedule

93. The sets of design and drawings, bid documents and other reports shall be furnished in preliminary draft form and in five copies. The Consultant shall incorporate UWSCG comments and furnish copies of the final version within 15 days.

No.	Schedule	Duration (Days)
1	Inception report with a detailed Work Plan	30
2	Monthly Reports	60, 90, 120, 150, 180
3	Interim Reports	As per Work Plan in Inception Report
4	Detailed Design Reports and Estimates	As per Work Plan in Inception Report
5	Procurement Documents	As per Work Plan in Inception Report
6	Master Plans for WSS Systems	As per Work Plan in Inception Report
7	Project Completion Report	210

iv. Workshops

94. In addition to the deliverables mentioned above, the Consultant shall make several PowerPoint presentations at different stages to the UWSCG. The costs for conducting these workshops shall be included in the contract. The Consultant shall make presentations on the progress of work showing milestones, targets, photographs, etc. during the following deliverable stages:

1. Inception Report
2. Interim Reports
3. Master Plans
4. Final Report

f. Expertise

95. The duration of the consultancy is 210 days beginning in September 2010. It will require approximately 149 person months including 36 international person months, 113 national person months, and approximately 108 national person-months for support staff. An engineering consulting firm experienced in urban water supply and sanitation system design is required to conduct the studies, investigations, and designs described above. While engineering skills and experience are required as the backbone of this work, a general understanding of the present system with institutional arrangements to carry out to the woks is also essential.

96. The Consultant shall retain key personnel until the end of the consultancy period without replacement. Where replacements become unavoidable, they shall be made with persons of equivalent or higher qualifications and experience than those to be replaced with the approval of the UWSCG.

g. Client Support

97. To enable the Consultant to carry out the work, the UWSCG will provide all available data, reports, and maps of existing systems. Additional data, if any required, should be collected by the Consultant from the UWSCG and the service centers.

- UWSCG will assist in coordinating with relevant government agencies in obtaining required approvals and authorizations.
- No office accommodation will be provided by the UWSCG for the consultancy. The Consultant shall make its own arrangements for office accommodation, transportation, communication, and equipment for the consultancy.
- The Consultant will establish two project offices (i) in Kutaisi to handle works in Kutaisi and Marneuli; and (ii) in Zugdidi to handle works in Zugdidi, Poti, Anaklia and Mestia.
- The Consultant should note that it is required to provide housing for its staff and that no assistance in this connection will be provided by UWSCG.
- The Consultant will arrange its own computer software and hardware.

h. Attachments

98. The following attachments provide additional information to the SOW:

- Attachment 1: Indicative works in Investment Program towns
- Attachment 2: Staff Requirement

Attachment 1: Indicative Works in Investment Program Towns

Sector	Zugdidi	Anaklia	Poti	Mestia	Kutaisi	Marneuli
Water Supply						
- Head works	x	-	x	x	x	x
- Transmission	x	x	x	x	x	x
- Treatment	x	-	x	x	x	x
- Reservoirs	x	x	-	x	x	x
- Distribution Network	x	x	-	x	x	x
- Metering	x	x	-	x	x	x
Sewerage and Sanitation						
- Sewer Network	x	x	x	x	x	x
- Pumping	x	x	x	x	x	x
- Outfall	x	x	x	x	x	x
- Treatment Plant	x	x	x	x	x	x
Vehicles and Equipment	x	x	x	x	x	x

Attachment 2: Staff Requirement and Responsibilities

International Staff

No.	Position	Months	Preferred Minimum Qualifications and Experience	General Roles and Responsibilities
1	Team Leader / Project Management Specialist	7	Post graduate degree in civil, public health, or environmental engineering. Minimum 15 years experience in design and project management on similar projects. The TL should have experience on projects financed by multi-lateral and international agencies.	Coordinate and manage Consultant's team. Ensure that the works are designed in accordance to prescribed standards. Liaise with UWSCG and service centers. Responsible surveys and investigations for all components. Responsible for delivery of the outputs as per TOR. Guide and review designs and cost estimates. Submit monthly and completion reports. Assist client in procurement procedures.
2	Water Quality and Laboratory Specialist	2	Postgraduate degree in chemistry, microbiology or related field. Minimum10 years of relevant experience	Supervise collection and analysis of water and wastewater samples. Recommend laboratory equipment for service centers.
3	Senior Water Supply Engineer	7	Bachelor's degree in civil public health, or environmental engineering, or equivalent. Minimum 15 years experience in design of water supply systems including treatment plants.	Supervise the preparation of designs, estimates, specifications, and bid documents for all water supply subprojects.
4	Senior Sanitation Engineer	7	Bachelor's degree in civil public health, or environmental engineering, or equivalent. Minimum 15 years experience in design of and sanitation systems including treatment plants.	Supervise the preparation of designs, estimates, specifications, and bid documents for all sanitation subprojects.
5	Economist	2	Postgraduate degree in economics. Minimum 10 years experience in evaluation of urban infrastructure projects	Analyze economic aspects of the tranche 1 subprojects. Prepare economic and financial analysis of water supply and sanitation subprojects.
6	Financial Analyst	2	Postgraduate degree in economics or finance. Minimum 10 years experience in preparing financial analyses of urban infrastructure.	Determine rates of return for water supply and sanitation projects. Provide advice for water rates.
7	Procurement Specialist	5	Bachelor's degree in relevant discipline. Minimum 10 years experience in procurement related works, particularly in externally aided projects.	Prepare prequalification and bidding documents. Advise UWSCG on all procurement issues. Assist in preparing bid evaluation formats and bid evaluations. Build the procurement capacity in the UWSCG.
8	Environmental Specialist	2	Postgraduate degree in related field. Minimum 10 years experience in Environmental Impact Assessment assignments.	Prepare environmental and social impact reports. Prepare mitigation measures.
9	Resettlement Specialist	2	Postgraduate degree. Minimum 5 years experience in similar works.	Assist UWSCG prepare resettlement plans for subprojects as needed in accordance to government and ADB guidelines. Assist in identifying land acquisition and resettlement requirements.
Total for International Staff		36		

Attachment 2: Staff Requirement and Responsibilities

National Staff

No.	Position	Months	Preferred Minimum Qualifications and Experience	General Roles and Responsibilities
1	Mechanical Engineer	4	Degree in Mechanical Engineering. Minimum 10 years experience in designing detailed engineering and installation of mechanical equipment related mainly to water supply and sanitation works.	Design of all mechanical systems for various components. Prepare mechanical specifications.
2	Electrical Engineer	4	Bachelor's degree in electrical engineering. Minimum 10 years experience in designing, detailed engineering, and installation of electrical equipment and electrification works related mainly to water supply and sanitation works.	Design of all electrical systems for various components. Prepare electrical specifications. Assist client in documentation necessary for obtaining permits.
3	Water Supply Engineers	7	For all three positions: Bachelor's degree in civil public health, or environmental engineering, or equivalent. Minimum 10 years experience in design of water supply systems including treatment plants.	Prepare designs, estimates, specifications, and bid documents for all water supply subprojects.
4	Sanitation Engineers	7	For all three positions: Bachelor's degree in civil public health, or environmental engineering, or equivalent. Minimum 10 years experience in design of sanitation systems including treatment plants.	Prepare designs, estimates, specifications, and bid documents for all sanitation subprojects.
5	Structural Engineer	3	Postgraduate degree in structural engineering. Minimum 10 years experience in design of structures mainly related to water supply and sanitation structures.	Prepare structural designs and drawings of all structural components. Prepare specifications for structural works.
6	Assistant Water Supply Engineers	7	For all three positions: Bachelor's degree in civil, public health, or environmental engineering or equivalent. Minimum 5 years experience in design of water supply systems including treatment plants.	Assist water supply engineers prepare designs, cost estimates, and bid documents for water supply components.
7	Assistant Sanitation Engineers	7	For all three positions: Bachelor's degree in civil, public health, or environmental engineering or equivalent. Minimum 5 years experience in design of sanitation systems including treatment plants.	Assist sanitation engineers prepare designs, cost estimates, and bid documents for sanitation components.
8	Geotechnical Engineer	4	Postgraduate degree in foundation engineering, geology or related field. Minimum 5 years of relevant experience.	Supervise geotechnical investigations including the collection and analysis of soil samples.
9	Quantity Surveyors	7	For both positions. A qualification in surveying. Minimum 5 years experience in similar survey works.	Assist design team in preparing quantities and price estimates.
Total for National Staff		113		

3. Outline Terms of Reference for Construction Supervision Consultant

a. Background

99. The Georgia Urban Services Improvement Investment Program (Investment Program) will improve the health of residents in the secondary towns of Marneuli, Kutaisi, Poti, Zugdidi, Anaklia and Mestia. The outcome of the Investment Program is improved WSS 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 approximately 6 secondary towns, and provision of vehicles and equipment for system operation and maintenance for these towns
- **Component 2: Institutional Effectiveness.** The second component will provide capacity development for the MEPNR, GNEWSRC, and the UWSCG. This includes providing management contractor support to improve management and technical capabilities of UWSCG. This component will also include skill development of graduating students from the Georgia Technical University through a water management program in partnership with UWSCG.
- **Component 3: Investment Project Implementation.** The third component will provide project implementation support comprising detailed engineering, construction supervision, safeguards compliance, preparing subsequent projects of the Investment Program and a public awareness program on health, hygiene, sanitation and water conservation.

100. The Construction Supervision Consultant (the Consultant) will supervise implementation of water intake facilities (headworks, treatment, storage and transmission), water supply and sewerage system, and sewage treatment plants. The Consultant will be responsible for:

(i) Detailed supervision of all water supply and sanitation works
(ii) Supervision of Water Treatment Plant construction
(iii) Ensuring pressure testing of all laid water mains with new service connections
(iv) Providing assistance for commissioning and handing over of works to UWSCG

b. Staffing Requirement

101. The Consultant shall provide services over a five-year period. The staff requirement is detailed in **Table 1** below.

Table 1: Staff Requirement for Construction Supervision Consultants

	Professional	Nos	Months	Total
I	**International Staff**			
	Team Leader / Project Supervision Expert	1	60	60
	Subtotal -- International Staff			**60**
II	**National Staff**			
	Engineer / Project Supervision Expert	2	60	120
	Water Supply Engineer	1	60	60

	Professional	Nos	Months	Total
	Assistant Water Supply Engineer	2	60	120
	Sanitation Engineer	1	60	60
	Assistant Sanitation Engineer	2	60	120
	Resident Engineers	4	60	240
	Subtotal -- National Professional Staff			**720**
	Total			**780**

c. Terms of Reference

i. Team Leader / Project Supervision Expert

102. The Team Leader will be responsible for overall supervision of all construction assets. The Team Leader will be in charge of all other consultants, including the timing of their inputs and the quality of their products, liaise with UWSCG on a day to day basis and with ADB. With each consultant he/she will prepare and supervise a work plan. Once a week the Team Leader will hold a program progress meeting with other consultants and the UWSCG to review progress on all fronts and resolve constraints. The Team Leader will be responsible for all reporting on construction status in a timely manner. He/she will be responsible for updating the Investment Program schedule as per the critical path method of construction management.

103. The International Team Leader will:

(i) Develop the program critical path timeline and design and construction sequencing for future tranches to prioritize joint water supply and sewerage implementation through major international construction companies;
(ii) Monitor the rate of progress of contract implementation pro-actively dealing with bottlenecks as they are likely to occur;
(iii) Maintain accurate and up-to-date accounting records for the Investment Program;
(iv) Prepare detailed quarterly progress reports and annual summaries, and submit them through UWSCG and MRDI to ADB;
(v) Closely coordinate with the Management Contractor on optimizing the functionality of UWSCG.
(vi) Oversee and coordinate implementation of the environmental monitoring plan (EMP), resettlement plan, and public awareness programs; and
(vii) Help the IPMO prepare and submit the project completion report.

104. The position of the Team Leader / Project Management Specialist will require a Degree in Engineering (civil / water supply and sewerage) plus at least a Masters or equivalent in water supply engineering / program management / development management. He/she should have at least 20 years experience in planning, design 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. Among the stated 20 years, he must have at least 5 years experience as Team Leader and a minimum 10 years experience in developing countries, preferably in inland Asia. He/she must have demonstrated skills in human resource management. He/she must have had experience on an ADB project and be familiar with ADB Guidelines. He/she shall also be required to give references for at least three recent projects.

ii. National Project Supervision Experts / Deputy Team Leaders

105. The consultants will be responsible for the supervision of WSS contracts, maintaining continued liaison with the contractors, ensuring that the work timelines are being adhered to, that bottle-necks are removed proactively, that the reporting from the field is up-to-date in all respects and that modifications are appropriately and in a timely manner dealt with. The duties of the specialists will be to:

(i) guide the contract award process, ensuring that all formalities are being complied with;
(ii) monitor the execution of the works and the adherence to the contracted implementation schedule documented as a detailed and verifiable Gantt chart;
(iii) verify the presented payment requests submitted by the contractors and certified by the field staff;
(iv) carry out regular site visits to ascertain the accuracy of the data presented against the tangible progress demonstrated in the field;
(v) attend progress review meetings on a two monthly basis between field staff and contractors;
(vi) verify the claims received from the contractor and certified by the field staff on necessary contract variations and claims for extension in contract time;
(vii) prepare the necessary progress reports for the review by the higher authorities, making recommendations on the progress of the works and possible deviations from the agreed timeline;

106. The project supervision experts / deputy team leaders shall have a degree in civil / structure / water supply engineering, supplemented with a master in construction management. In addition, he must have 15 years of experience in planning, and implementation of large-scale water supply and sanitation projects.

iii. National Water Supply Engineer

107. The Water Supply Engineer will take overall responsibility of supporting the International Team Leader and National Project Supervision Expert in all their functions and will be responsible for organizing the supervising of all water pipes and control elements throughout the project. He will analyze the risk and consequence of delays during implementation, and propose countermeasures. They will establish database containing all minutes of site meetings, variation orders, test records and handing over certificates. He will establish procedures that will effect payments based on monthly statements from the contractors certified by the resident engineers. They will work in conjunction with the contract management specialists but more focusing on the technical quality of the work performed. The duties will be to:

(i) Develop the methodologies to be adopted by the supervision staff to maintain the required rate of construction progress, ensuring full cooperation of the authorities in issuing the licenses and permissions to carry out the work;
(ii) Train the supervision staff in the use of monitoring tools and Gantt charts;
(iii) Train the supervision staff in the preparation of the payment certificates and verification of the accuracy / appropriateness of the quantities claimed as having been executed;
(iv) Develop the methodologies for record keeping and contract administration;

(v) Attend progress review meetings on a two monthly basis between field staff and contractors; and
(vi) Guide the field staff in adjudicating the claims received from the contractor on contract variations and claims for extension in contract time.

108. The Water Supply Engineer shall have a degree in civil / structure / water supply engineer, supplemented with a master in construction management. In addition, he/she must have 10 years of experience in supervision of major civil engineering projects.

iv. Sanitation Engineer

109. The Sanitation Engineer will take overall responsibility of supporting the International Team Leader and National Project Supervision Expert in all their functions and will be responsible for organizing the supervising all sewerage and sanitation works throughout the project. He will analyze the risk and consequence of delays during implementation, and propose countermeasures. They will establish database containing all minutes of site meetings, variation orders, test records and handing over certificates. He will establish procedures that will effect payments based on monthly statements from the contractors certified by the resident engineers. They will work in conjunction with the contract management specialists but more focusing on the technical quality of the work performed. The duties will be to:

(i) Develop the methodologies to be adopted by the supervision staff to maintain the required rate of construction progress, ensuring full cooperation of the authorities in issuing the licenses and permissions to carry out the work;
(ii) Train the supervision staff in the use of monitoring tools and Gantt charts;
(iii) Train the supervision staff in the preparation of the payment certificates and verification of the accuracy / appropriateness of the quantities claimed as having been executed;
(iv) Develop the methodologies for record keeping and contract administration;
(v) Attend progress review meetings on a two monthly basis between field staff and contractors;
(vi) Guide the field staff in adjudicating the claims received from the contractor on contract variations and claims for extension in contract time.

110. The Sanitation Engineer shall have a degree in civil / water supply and sanitation engineering, supplemented with a master degree in construction management. In addition, he/she must have 10 years of experience in supervision of major civil engineering projects.

v. Resident Engineers

111. The Resident Engineers will be responsible for the day-to-day supervision and contract management of the respective implementation contracts. The Resident Engineers shall have a diploma in civil /water supply engineering with at least 10 years construction supervision experience. The Resident Engineers shall have construction experience either employed in a supervisory capacity or by a contractor as head foreman. Experience with international organizations shall be an added advantage.

4. Individual Consultants

112. The following is a list of individual consultants planned under the Investment Program.

Table 1: Staff Requirement for Individual Consultants

	Expert	Input (in pm)	Activity
	IPMO Consultants		
1	Independent Engineer	260	To oversee designs of the detailed engineering design consultants
2	Environmental Specialist	300	To oversee implementation of the EMPs developed as a part of the IEE for subprojects in each tranche, and to develop MEPNR and MA staff capacity on environmental monitoring (effluent and drinking water quality standards)
3	Social Safeguard Specialist	150	To oversee implementation of the RPs developed as a part of the subprojects in each tranche
4	Gender Specialist	300	To oversee implementation of the Gender Action Plan and participate in the public awareness program
5	Procurement Specialist	150	To assist the UWSCG in procuring works, goods, and consulting services compliant with relevant ADB guidelines
	Capacity Building		
1	Regulatory Specialist	90	To develop GNEWSRC staff capacity on regulatory functions
2	Tariff Setting Specialist	90	To assist GNEWSRC in setting a methodology for water and sewerage tariffs
	PPP Transaction		
1	Transaction Advisor/TL	120	To lead the PPP Transaction Advisory team and advise on appointment of the Management Contractor
2	WSS Specialist	120	To establish baseline performance levels and technical monitoring parameters
3	Legal Specialist (International and National)	120	To prepare the RFQ and RFP documents in accordance with international best practices and local laws
4	Financial Analyst	30	To establish baseline financial performance levels and establish financial monitoring parameters
	WSS Management Program		
1	NRW Detection Expert	60	To train UWSCG staff on NRW detection and rectification
2	Financial and Accounts Manager	40	To train UWSCG Staff on IAS and IFRS
3	Communications Expert	30	To train customer care unit staff in public relations and communications

IPMO = Investment program management Office, GNEWSRC = Georgia National Energy and Water Supply Regulatory Commission, PPP = public private partnership, RFQ = request for qualification, RFP = request for proposal, UWSCG = United Water Supply Company of Georgia LLC, WSS = water supply and sanitation, MEPNR = Ministry of Environmental Protection and Natural Resources, MA = Ministry of Agriculture, IEE = initial environmental examinations, EMP = environmental management plan

VII. SAFEGUARDS

A. Social Safeguards

113. 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. MRDI has endorsed the Resettlement Framework (RF) that has been prepared for the Investment Program (see Linked Document 16 of the RRP). The involuntary resettlement process as required under the RF will be followed during implementation and necessary resettlement plans will be prepared.

114. The RF 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 RF will not be lowered in subsequent revisions and updates.

B. Environmental Safeguards

115. In order to ensure compliance with ADB Safeguard Policy Statement (2009), 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 (see Linked Document 14 of the RRP). The EARF and the environmental assessment process as required under the EARF will be followed during implementation and necessary IEE and EMP will be prepared.

Environmental Management Actions	Implementation Activities	Conditions Required to Complete Actions
Pre-construction commences	Activity 1: Project becomes effective	
Environmental recording system established in PMU, UWSCG.	Activity 2: PIU established with ESU. Environment staff appointed to ESU	Budget, facilities and staff for ESU have been provided according to Loan Agreement
Design and implement baseline monitoring for environmental conditions; unless this has been undertaken during the environmental assessment stage	Activity 3: Prepare project baseline environmental matrix	
• Environment Specialist (ES) prepares Design Brief for D&S consultant that incorporates EMP Design requirements • ES checks Design Brief meets EMP requirements	Activity 4: Pre-construction: Design; Incorporation of EMP requirements	Appointment of Design and Supervision consultant with necessary technical capacity to address EMP requirements
• ES extracts construction requirements from EMP and pass to D&S consultant for inclusion in Tender documents	Activity 5: Tender documents prepared	Standard environmental conditions have been prepared which are integrated into Tender documents

Environmental Management Actions	Implementation Activities	Conditions Required to Complete Actions
• ES reviews Tender documents and confirm that environmental management provisions are sufficient		
ESU review environmental conditions of Bid and rank contractors on this ability	Activity 6: Tenders evaluated and Contractor appointed	ES to be a member of the Bid Evaluation Panel
ES reviews SEMP and EMS	Activity 7: Contractor prepares Site EMP (SEMP) and EMS if required	• Contractor appoints Environmental Manager. • After award of contact Contractor has 30 days to prepare SEMP/EMS. • ADB CWRD Guidance notes on preparing SEMP available
ESU verifies compliance of Contractor with SEMP at site meeting	Activity 8: Contractor inducted to site by ESU	Contractor cannot take possession of construction site until (i) SEMP/EMS has been approved and (ii) induction is completed satisfactorily
ES informs PMU that Contractor is now cleared to start work	Activity 9: Contractor approved to start work	
Pre-construction completed		
Construction commences	Activity 1: Contractor begins work.	
• ES, PMU 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 PMU • Quarterly environmental report to ADB and country environmental agency	Contractor complies with SEMP requirements for implementing and monitoring work on-site • ADB CWRD Guidance notes on preparing monitoring reports available
Construction completed	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 • Final environmental monitoring report prepared • Payments may be withheld if sites not cleared and closed to meet SEMP specifications.
Note: Work on sub-projects for subsequent tranches is likely to begin during implementation of Tranche 1 sub-projects		
Sub Projects for subsequent	Activity 1: Potential sub-projects	

Environmental Management Actions	Implementation Activities	Conditions Required to Complete Actions
tranches Sub-projects assessed against the selection criteria set out in the environmental assessment and review framework	for new tranche identified	
• Environmental classification completed. Categorisation forms sent to ADB regional Department and local Environment Authority for confirmation. • ES prepares TOR for environmental assessment requirements • Consultant appointed to prepare the necessary environmental assessment documents	Activity 2: Preliminary Design undertaken for sub-projects	
Environmental Assessment documents to accompany PFR Documents to be reviewed by ES CWRD.	Activity 3: Project Financing request submitted to ADB Activity 4: Sub-projects in new tranche approved	
• Design and implement baseline monitoring for environmental conditions; unless this has been undertaken during the environmental assessment stage	Activity 5: Prepare project baseline environmental matrix	
• ES prepare Design Brief for D&S consultant that incorporates EMP Design requirements • ES check Design Brief meets EMP requirements	Activity 6: Pre-construction: Design; Incorporation of EMP requirements	
• ES extracts construction requirements from EMP and pass to D&S consultant for inclusion in Tender documents • ES reviews Tender documents and confirm that environmental management provisions are sufficient	Activity 7: Tender documents prepared	
ES review environmental conditions of Bid and rank contractors on this ability	Activity 8: Tenders evaluated and Contractor appointed	
ES reviews SEMP and EMS	Activity 9: Contractor prepares Site EMP (SEMP) and EMS if required	
	Activity 10: Contractor inducted to site by ESU	

116. The EARF 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 EARF will not be lowered in subsequent revisions and updates.

VIII. GENDER AND SOCIAL DIMENSIONS

117. See Linked Document 12 (Summary Poverty Reduction and Social Strategy) and the attached Gender Action Plan.

118. **Gender Development Strategy.** To support the primary goal of the Investment Program in ensuring effective and sustainable WSS systems, gender development will be addressed in a twofold approach in this Investment Program. A gender and social development consultant will be hired to assist UWSCG in implementing the GAP and reaching the targets.

(i) One approach is to improve career and employment opportunities in the UWSCG. This will be facilitated by introducing a sex-disaggregated database for human resource management, which will provide information for an annual gender analysis of the staff development, improve management support for gender balanced human resource management and staff development. Additionally, employment opportunities for women will be created in customer care centers. According to UWSCG's human resource department, around 35% of women are employed in the UWSCG with a large proportion in administrative tasks. In the top management, 4 out of 14 department heads are women (30%). An improved database will be developed to monitor career development for women at UWSCG.

(ii) The second approach is to improve the outreach of the UWSCG to communities and in doing this, particularly address women as household managers and water collectors. There is a clear lack of knowledge, information and awareness of water and sanitation related issues such as health, household expenses, customer rights, and environmental issues. For that reason, the Investment Program will develop an information, education and communication (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 Mestia and Marneuli.

119. Through a pilot project in Mestia and Marneuli, baseline data on household water management and sanitation practices will be created by conducting a household survey. A post-intervention survey will be conducted after the IEC campaign and compared with the baseline. This will show if and why households were convinced to access the water and sanitation services of the UWSCG. Household survey and IEC will be conducted by an apex NGO with an extensive experience of working on gender issues and dissemination of information throughout the country. The Apex NGO will work through local NGOs to address gender issues within the Investment Program. Besides delivering the IEC campaign and the survey, the involvement of NGOs will facilitate better participation of communities, will improve grievance and complaint mechanism and improve awareness of the communities about the Investment Program. Impact assessment of the public awareness program in Mestia and Marneuli will expand UWSCG's country wide PR campaign.

120. Additional capacity building support for the UWSCG for designing a marketing campaign catering to women's needs as household managers is envisaged to optimize the utilization of the information gathered in the pilot project.

121. The pilot project will be partly financed through Output 3 of RETA-7563: Promoting Gender Inclusive Growth in Central and West Asia, in which the development and

implementation of a pilot project in each developing member country including Georgia is planned to showcase effective gender mainstreaming in infrastructure projects. The subprojects may include customer services and client-oriented project development and marketing and other country-specific project proposals that promote gender equality and women's empowerment. The gender specialist, financed through the RETA, will develop the detailed project design for the pilot project and will supervise its timely implementation by the apex NGO.

GENDER ACTION PLAN (GAP)[17]

Objective	Actions and Description	Target/Indicator and Timeframe	Institutional Responsibility
Component 2: Institutional Effectiveness			
1. Knowledge of consumer behavior of male and female headed households gained	– Train staff working on MIS and accounting system on sex-disaggregated data collection – Establish sex-disaggregated consumer database	– Sex-disaggregated consumer database created for UWSCG (2011) – UWSCG Annual Report on consumer profile informed by gender analysis of sex-disaggregated consumer data base (2012)	UWSCG
2. Management capacity of UWSCG enhanced and human resource management gender mainstreamed	– Maintain equal employment opportunities for women and men in UWSCG, and facilitate their career development – Conduct capacity development on gender equality at the workplace – Inform annual report on human resources of UWSCG with gender analysis	– Women representation in key management staff of UWSCG is ensured (approximately 30% by 2013) – Atleast 50% of staff in Investment Program town customer service care centers are women (2013) – Sex-disaggregated data base introduced for human resource management (2011) – Yearly report on human resource development informed with gender analysis (2012) – UWSCG staff trained on financial management and accounting (30% number of women)	
Component 3: Project Implementation Support			
1. Public Relations (PR) campaign of UWSCG is informed by survey on household water management, household needs and knowledge gaps	– Conduct survey on household water management and sanitation practices – Analyze knowledge gaps of households (especially women as household managers) on water, hygiene, sanitation, environmental impact of sewage, consumer rights, and efficient water use	– Results of survey are analyzed in report (2011) – Public awareness program is informed by survey results (2011)	UWSCG, Apex NGOs, and local NGOs
2. UWSCG PR campaign is supported by country wide information, education and communication (IEC) campaigns	– Develop IEC material on water, hygiene, sanitation, customer rights and water usage efficiency based on consumer needs and knowledge gaps – Train staff of customer care centers as hygiene and sanitation advocates – Roll out public awareness program from Marneuli and Mestia (pilot area) to the 6 Investment Program towns	– Apex NGO contracted and IEC material on water, hygiene and sanitation practices, consumer rights, complaint mechanisms is disseminated in the 6 Investment Program towns (2011- continuous) – Local women NGOs and female community leaders are involved in IEC material distribution and are trained to conduct public awareness program (2011-continious) – All staff of customer care centers are trained on water, hygiene, sanitation practices, customer rights and complaint mechanisms (2011- continuous) – Feedback mechanism on effectiveness of IEC campaign through women determined	
3. Complaints redressed	– Establish complaint mechanism and database in customer care centers and identify consumer service requirement (targeting the needs of women in specific)	– Annual report on quantity and redress of complaints published (2011-continuous)	

[17] Applied to all tranches.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Design and Monitoring Framework

122. See Appendix 1 of the RRP

B. Monitoring

123. **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 the IA, and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.[18]

124. **Compliance monitoring.** Compliance on covenants will be monitored through regular ADB review missions and on a quarterly basis in discussion with the MORDI.

125. **Safeguards monitoring.** Monitoring and reporting of the implementation on safeguards requirements and procedures will be prepared by UWSCG. The Investment Program Management Office (IPMO) will undertake internal monitoring of safeguard covenants' compliance to be included in the quarterly/semiannually project progress report. An ADB Staff Consultant will validate the internal monitoring reports and evaluate compliance of Investment Program activities with the ADB's *Safeguard Policy Statement* (2009). External monitoring will be carried out by an Independent Monitoring Agency appointed by MoRDI and in two phases, once during the RP implementation and once a year later.

126. **Gender and social dimensions monitoring.** See Appendix 1 on DMF and Linked Document 13 on GAP for monitoring indicators.

C. Evaluation

127. Within 6 months of physical completion of each project under the Investment Program the MRDI will submit a project completion report to ADB.[19]

D. Reporting

128. UWSCG through MRDI 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 each tranche of the Investment Program. To ensure that the Investment Program is efficiently managed, accounts of every tranche of the facility together with the associated auditor's report, should be adequately reviewed.

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[18] ADB's project performance reporting system is available at: http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool

[19] Project completion report format is available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar

X. ANTICORRUPTION POLICY

129. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Investment Program.[20] 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 Investment Program 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 Investment Program.[21]

130. 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, the MRDI and UWSCG will disclose on their respective websites information on, among others, the: (a) list of participating bidders; (b) name of the winning bidder; (c)basic details on bidding procedures and procurement methods adopted; (d)amount of contract awarded; (e)list of goods/services, including consulting services procured; and (f)intended and actual utilization of the facility proceeds.

[20] Available at: http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf
[21] ADB's Integrity Office web site is available at: http://www.adb.org/integrity/unit.asp

XI. ACCOUNTABILITY MECHANISM

131. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.[22]

[22] For further information see: http://compliance.adb.org/.

XII. RECORD OF FAM CHANGES

132. Date of first FAM – 24 February 2011.