

BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

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July-December 2018

Loan Number: 3441-GEO

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 6) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPRP	Department of Environmental protection, Resettlement and Construction Permit
DIPDR	Department of International Procurement and Donors Relations
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ES/ SES	Environmental Specialist/ Senior Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IPMO	Investment Program Management Office
USIIP	Urban Sector Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoENRP	Ministry of Environment and Natural Resources Protection
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sewerage

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PART I – INTRODUCTION

1.1 Construction activities and project progress during the previous 6 months

A. General information about the program/subprojects

1. The present Bi-annual Environmental Monitoring Report covers July-December 2017 time period.
2. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
3. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
4. Tranche 6 of the Investment Program includes:
 - Construction of Water Supply and Waste Water Supply Systems in Marneuli Wastewater System (MAR-01);
 - Construction of Waste Water treatment Plant in Marneuli (MAR-02);
 - Construction of Water Supply System in Chiatura (CHI-01);
 - Construction of Waste Water Treatment Plant in Chiatura (CHI-02)

The following projects are financed under Tranche 6:

5. **Construction of Water Supply and Waste Water Supply Systems in Marneuli Wastewater System (MAR-01):** Mar-01 project envisages the rehabilitation and construction of reservoirs with the total capacity of $12,000\text{M}^3=(2\times 3000+3\times 2000)$; construction of cast iron transmission pipeline with the diameter of 700 mm - 10 km and 600 mm – 4km; construction of network with Polyethylene pipes of OD 50 to OD 500. The project measures for the sewer network comprise the lying about 150 km new gravity pipes (DN 150 to DN 800) and 2.7 km new pressure pipes (OD 110 and OD 225). There will be 9 new wastewater pumping stations; 600mm to 1000 mm diameter inspection wells (concrete or polyethylene) and 400 mm diameter house connections (polyethylene).
6. **Construction of Waste Water treatment Plant in Marneuli (MAR-02).** The project comprises of the construction of new Wastewater Treatment Plant in Marneuli with the capacity of $10,536\text{ m}^3/\text{day}$.

7. **Construction of Water Supply System in Chiatura (CHI-01).** The work under the CHI-01 project comprises the rehabilitation and construction of the water supply network, transmission pipeline and Reservoirs. In particular Chi-01 project envisages construction of network in Chiatura and Navardzeti, construction of a transmission lines with about 10 km of total length, the rehabilitation of existing 8 reservoirs (including Lazhubani, Perevisa and Memorial reservoirs) and construction of 2 new reservoirs one near the intake and one new reservoir in Bisi, construction of 5 pumping stations and replacement of 67 km network pipelines.
8. **Construction of Waste Water Treatment Plant in Chiatura (CHI-02):** The project comprises of the construction of new Wastewater Treatment Plant in Chiatura. Capacity of the WWTP is not determined as yet.

B. Construction activities implemented during the reporting period (July-December 2017)

1. During the reporting period, the contracts are signed between contractors and UWSCG to implement CHI-01 project. No construction works initiated within the framework of CHI-01 project as yet.

1.2 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

1. The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.
2. United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. Investment Program Management Office (IPMO) under UWSCG is an International Procurement and Donors Relations Department. A new Department of Environmental Protection, Resettlement and Construction Permit (DEPRP) was established under UWSCG as well. DEPRP replaced the existing Unit of Resettlement and Environmental Protection (UREP). DEPRP include Unit of Construction Permission and consist of six staff members.
2. UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) - Eptisa. The national and international team of consultants assists UWSCG in the supervision of the construction of subprojects under the USIIP. The SC also provides capacity building training to contractor staff in the management and operation and maintenance of the subprojects. The SC assists UWSCG in ensuring that the subprojects are implemented according to the specified standards. SC assignment also includes the supervising of the implementation of the environmental management plans.
3. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the Supervision Consultant. To ensure the smooth implementation of EMPs and SSEMPs of subprojects, an Environmental Management Specialist (EMS) is employed by the SC/Eptisa. SC/EMS conducts routine observations and surveys, prepares quarterly environmental reports and submits these to UWSCG.
4. The Contractor has the following obligations:
 - to prepare SSEMPs;

- to employ Environmental Consultant responsible for developing and implementing the construction phase SSEMPs and for providing the corresponding information to UWSCG and SC;
 - to develop Solid Waste Disposal Plan and agreed the MoENRP and Local Government
5. DC is responsible for developing and incorporation of mitigation measures in design and construction.
 6. The environmental specialist (ES) is hired by UWSCG under the USIIP to assist and advise the DEPRP in USIIP program implementation in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of DCs and SCs in safeguards compliance. ES supports DEPRP in EARF implementation, in particular, reviewing IEE/EIA Reports and overseeing implementation of EMP/SSEMPs and in training and capacity-building activities. The ES prepares bi-annual and annual environmental monitoring reports and submits to ADB.
 7. DEPRP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPRP is staffed with a Head of Department, Head of Construction Permission Unit and 3 specialists, those are responsible for resettlement, environmental protection and construction permission issues.
 9. ADB is the donor financing the Investment Program. Environmental management organization is shown in Figure 1 and Figure 2.

Figure 1: Structure Diagram of the Environmental Management Unit of UWSCG

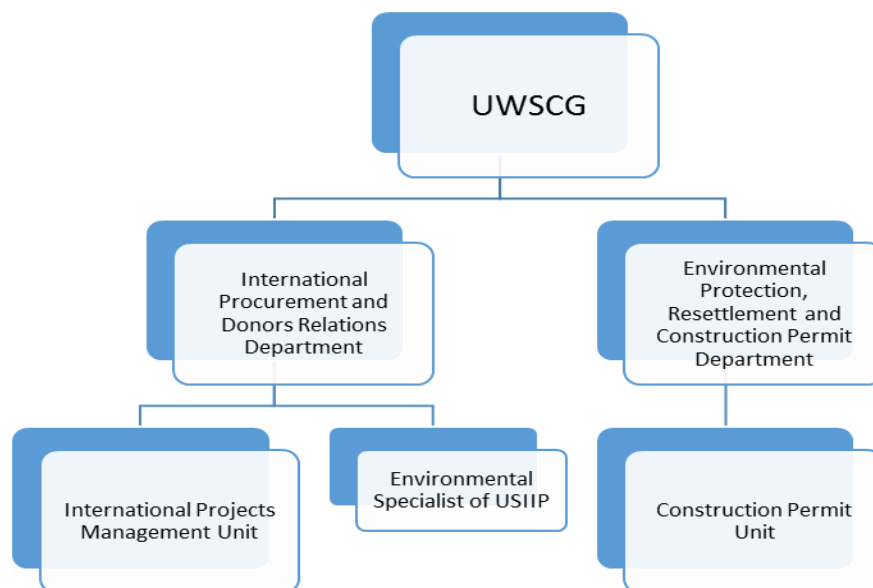
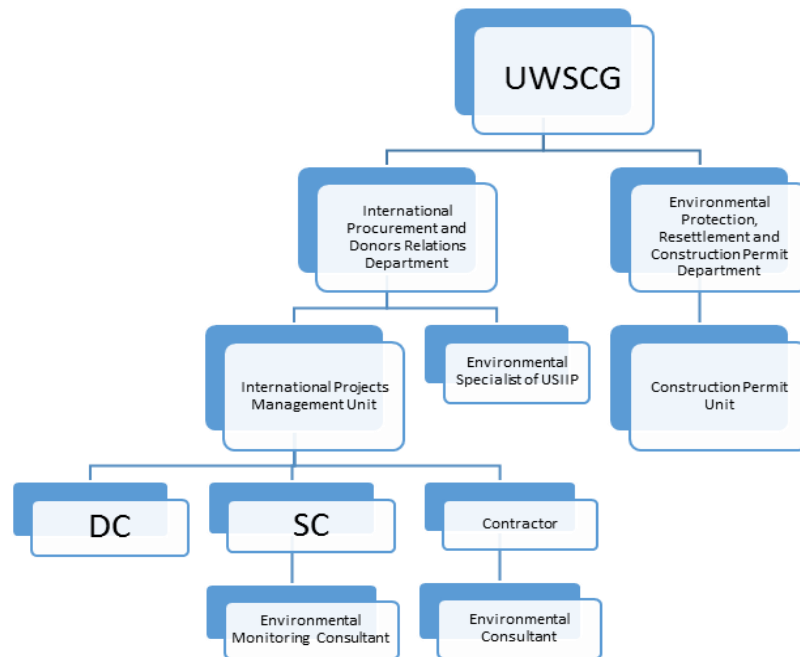


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



1.3 Relationships with Contractors, Owner, Lender, etc

10. Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for oversee progress and provide guidance on the investment program implementation; convene regular meetings in consultation with the SC Chairperson and UWSCG; ensure compliance with investment program covenants.
11. Oversight of the USIIP with regards to environmental management is the responsibility of the environmental safeguards team, in particular UWSCG/DEPRP and the Environmental Specialist of USIIP.
12. The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.
13. All SSEMPs will be prepared by Contractor, endorsed by SC and approved by UWSCG/DEPRP.
14. SC is responsible for environmental capacity building, monitoring of implementation of SSEMPs and for developing quarterly reports. The Contractor has a full time Environmental Specialist who carries out day to day monitoring as submits a monthly progress reports.
15. ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.
16. To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/DEPRP, Hill International N.V. (Netherlands) and Contractor. During the meetings environmental issues and implementation of the mitigation measures are discussed.
17. No GRM and GRC have been established in Chiatura within CHI-01 sub-project as yet. GRM will be established during the next reporting period, and will be reflected in EMR January-June 2018.
18. Project organization for the awarded contracts listed above is given in the table below:

Table 1: List of contracts under T6 – CHI-01 and Supervision Consultant for T6

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date
Contract No: P43405-ICB-CHI-01	Contractor: CHI-01	UWSCG	“Akkord Industry Construction Investment Corporation” OJSC	21-Aug-17	21-Feb-2019
Contract #	SC for T6	Employer	Consultant	Contract Sign. date	Contract Final Date
Contract No: UWSCG/USIIP/QCBS /04-2016	Supervision Consultant: Hill International N.V. (Netherlands)	UWSCG	JV of Hill International N.V. (Netherlands) as Leading Partner, Temelsu International Engineering Service Inc. (Turkey) as Partner and Management Consulting Group (PMCG) (Georgia) as sub-consultant	1-Sep-17	1-Jan-2021

PART II - ENVIRONMENTAL MONITORING

19. No baseline measurements were done for CHI-01 project during the reporting period as yet. Baseline Environmental measurements will be carried out in February 2018, by the contractor before commencement of the civil works as it is mentioned in relevant IEE and measurement data will be reflected in next Bi-Annual EMR January-June 2018.
20. In accordance with the IEE, and the accompanying Environmental Monitoring Plan (EMP), the Contractor is required to undertake parametric measurements and observations on air quality, noise and socio-cultural resources. Locations for the measurements were initially identified in the IEE. Accordingly, the monitoring will be held as shown in the table 2 below.

Table 2: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
CHI-01		
Air Quality	Every 3 months Chiatura reservoirs and Networks	Watering site during excavation works to avoid dust spreading Conduct measurements

Parameters	Frequency & Location	Remarks
		of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Every 3 months Reservoirs, Networks	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Cultural heritage Disturbance to cultural resources	Every time along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.

21. There are no protected areas, wetlands, mangroves, or estuaries. Trees, vegetation (mostly shrubs and grasses), and animals in the subproject sites are those commonly found in built-up areas. The geological structure of the area is stable and no potential land subsidence is foreseen.

D. Monitoring Measurement Data

22. Environmental monitoring of dust, air condition, noise and vibration under Chi-01 project will be performed as indicated in the relevant IEE/EMP (on the quarterly basis).
23. The parameters measured for the monitoring data at the construction sites are as follows: dust, carbon monoxide, nitrogen dioxide, sulfur dioxide, vibration and noise.
24. Noise impacts should not exceed the levels presented in Table 3, in accordance with Georgian regulations - Decree No. 297/N “On Approval of Environmental Quality Norms” (August 16, 2001 of the Ministry of Labor, Health and Social Affairs) and World Health Organization (WHO) 1999, or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.

Table 3: Noise Level Guidelines

Noise	dB		dB	
	National Regulations		WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00-07:00	Daytime 07:00-22:00	Nighttime 22:00-07:00
Residential; institutional; educational	55	45	55	45

Industrial; commercial	70	70	70	70
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25. The baseline monitoring measurements will be conducted in January 2018 and results will be reflected in the next EMR January-June 2018.

PART III - ENVIRONMENTAL MANAGEMENT

3.1 The Environmental Management System, Site-Specific Environmental Management Plan (SSEMP) and Waste Management Plans (July-December 2017)

26. No SSEMPs have been prepared during the reporting period under CHI-01 project as yet.
27. All SSEMPs will be prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 - Ms. Ketii Dgebuadze.
28. Status of Environmental Management Plans and SSEMPs prepared within the next reporting period will be summarized and presented in the next EMR January-June 2018.

3.2 Site Inspections and Audit

29. Not yet applicable.

3.3 Non-Compliance Notices

30. Not yet applicable.

3.4 Corrective Action Plans

31. Not yet applicable.

3.5 Actions taken to reflect the findings of ADB mission carried out on 28 September 2 October 2015

32. Not yet applicable.

3.6 Consultations and Complaints

Public Awareness Activities:

33. No public awareness activities were carried out within the CHI-01 project during the period in July-December 2017.

Grievance redresses mechanism (GRM)

34. For the effective implementation of a GRM system under the USIIP, UWSCG issued special order (#122) on 30 April 2014. The "Establishment of GRM within the Framework of the Asian Development Bank Funded Projects" signed by the head of UWSCG gives clear

instructions to every involved stakeholder how to act when affected people are impacted by the project. Detailed description of GRM procedures are provided in ANNEX E.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

35. Necessary instructions have been given to the Contractor by UWSCG and SC to update and follow the EMP and to prepare relevant SSEMPs before starting any construction works.

4.2 Action Plan for the next period

- Contractor to Develop, SC to endorse and UWSCG to approve SSEMP for Construction of Reservoirs under Chi-01 project (end of March 2018)
- UWSCG/DEPRP to carry out capacity building activities for Contractors in Environmental Safeguards for implementation of Chi-01 project (by the end of February 2018)
- Contractor and SC in cooperation with the UWSCG Public Awareness specialist and ES of USIIP to carry out public awareness activities under Chi-01 project, including informing of population about the GRM and GRC (within the reporting period)
- Conduct baseline and quarterly monitoring of environmental quality under Chi-01 project (reservoirs and network). The specific plan for measurement is as follows:

Table 4: Conduct monitoring of environmental quality under Chi-01 project

Parameters	Environmental measurement	
	Baseline	Quarterly
Dust	February 2018	June 2018
Vibration	February 2018	June 2018
carbon monoxide	February 2018	June 2018
nitrogen dioxide	February 2018	June 2018
Noise	February 2018	June 2018

ANNEXES:

ANNEX A: MONITORING DATA

Not yet applicable.

ANNEX B: PROJECT PHOTOS

Central PS at Chiatura Service Centre



Chi-01: Lezhubani existing Reservoir





Chi-01: Perevisa existing reservoir



Chi-01: Memorial Existing Reservoir



ANNEX C: NON-COMPLIANCE NOTICES

Not yet applicable.

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) /INITIAL ENVIRONMENTAL EXAMINATION (IEE) MITIGATION REQUIREMENTS:

Not yet applicable.

ANNEX E: Detailed Procedures for GRM System Implementation

Grievance redresses mechanism (GRM)

36. Any affected person can apply at a UWSCG local service centre in Zugdidi through different ways, either by going to the service centre, sending a letter to the service centre, or calling a hotline. The operators of the service centre can respond by going directly to the affected person if they are disabled to get the written grievance from them. As it was mentioned above the GRM in Zugdidi has been operational since implementation of Reg-01, Anaklia sub-project. GRM system operates in three stages.
37. During the first stage, complaints are discussed within two weeks of being received by the local service centre of UWSCG (e.g. Kutaisi office), based on the verbal or written complaint. In the first stage of grievance review and resolution, an authorized representative of the local service centre is responsible for ensuring the registration of the claim and its further processing. He/she engages in the grievance review and resolution process representatives (managers and environmental specialists) of Construction and Supervision Companies, and the representatives of UWSCG central office as required. At the local service centre, the affected person is provided with a queue number and then registers the grievance at the service desk.
38. The service centre operators, who are trained¹ in USIIP/Reg-01 project, register all relevant grievances with support of an online task management system, which tracks information on the grievance review process and the responsible person. Moreover, the operators fill the ADB complaints log with the registered grievance that coincides with local internal forms. This electronic intranet system ² allows the UWSCG Tbilisi Office to immediately see claims. Therefore, claims submitted to any regional service centre can be monitored by the Head of the Investment Projects Management Office (IPMO), as well as the Head of the Department of Environmental Protection, Resettlement and Construction Permits, Ms. Maka Goderdzishvili.
39. When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the eDocument – Task Management System.
40. The grievance enters a second stage if it is not solved. In that case, the authorized representative of the local service centre will help the claimant prepare a package of grievance application documents for official submission to the Grievance Redress Committee (GRC). The package contains the following information:
 - Name, ID, address and contact details of the claimant
 - Description of the essence of the complaint
 - Supporting documents and evidences (photos, maps, drawings/sketches, conclusion of experts or any other documents confirming the claim)
 - Brief description of the actions proposed for the grievance resolution at the first stage and the reasons why these actions were denied
 - Minutes of meetings conducted at the first stage
41. The GRC should make a decision within two weeks after the registration of the grievance. The GRC is staffed as follows: (i) Representative of self-government – the

¹ UWSCG and Supervision Consultant (Eptisa) conducted trainings for service center operators covering general procedures of GRM functioning in order to ensure proper coordination of different departments.

²The **eDocument - Task Management System** was developed by LEPL Financial-Analytical Service of the Ministry of Finance of Georgia. It is an innovative electronic document and task management mechanism for electronically processing of documents. Used by almost all the major budgetary organizations in Georgia, the eDocument service offers an opportunity to manage, find, and track documents for information-intensive organizations.

head of committee; (ii) Director/ Manager of UWSCG service centre; (iii) Investments Project Management Division representative of the company; (iv) Representative of local authoritative NGO (according to the claim reference); (v) Stakeholders' female representative;(vi) Stakeholders' informal representative; and (vii) Heads of local municipalities.

42. The GRC will review the package of grievance documents, set a date for a meeting with the claimant, discuss the claim at the meeting, and set up a plan for further actions (actions, responsible persons, schedule etc.). Upon the resolution of the case, the GRC will prepare a brief resume and protocol and the protocol signed by complainant and all parties will be registered in a grievance log.
43. There is a third stage in case there is a failure to resolve the grievance. In this case, GRC will help the claimant to prepare the documents for submission to the Rayon (municipal) court. They can also apply to ADB at the address below:
 - *Complaints Receiving Officer, Accountability Mechanism*
 - *Asian Development Bank Headquarters*
 - *6 ADB Avenue, Mandaluyong City 1550, Philippines*
 - *Email: amcro@adb.org, Fax +63-2-636-2086*