

BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-023
July-December 2017
Loan Number 2749-GEO (SF)

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 1) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

Prepared by: Ketevan Chomakhidze, Environmental Consultant
"United Water Supply Company of Georgia", LLC
Tbilisi, Georgia

For: The Ministry of Regional Development and Infrastructure of Georgia
and the Asian Development Bank

Endorsed by: Tinatin Lebanidze, Head, Department of International Procurement and
Donors Relations

December 2017

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, management, or staff, and may be preliminary in nature.

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

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

TABLE OF CONTENTS

PART I – INTRODUCTION	6
1.1 Construction activities and project progress during the previous 6 months	6
A. General information about the program/SUBPROJECTS	6
B. Construction activities and project progress during the previous 6 months	9
1.2 Changes in Project Organization and Environmental Management Team	10
PART II - Environmental Monitoring	14
C. Monitoring Measurement Data	18
PART III - Environmental management	20
3.1 The Environmental Management System, site-specific environmental management plan (SSEMP) and work plans	22
3.2 Site Inspections and Audits	22
3.3 Non-Compliance Notices	23
3.4 Corrective Action Plans	24
3.5 Actions taken to reflect the findings of ADB mission carried out on 28 September 2017 and 2 October 2017:	28
3.6 Consultations and Complaints	31
PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD	32
4.1 Conclusions and recommendations	32
4.2 Action Plan for the next period	36

ANNEX A: MONITORING MEASUREMENTS DATA

ANNEX B: PROJECT PHOTOS

ANNEX C: NON-COMPLIANCE NOTICES

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

ANNEX E: GRIEVANCE REDRESS MECHANIZM

ANNEX F: WEEKLY ENVIRONMENTAL MONITORING REPORTS

ANNEX G: CORRECTIVE ACTION PLANS

LIST OF TABLES:

Table 1:	Project Progress during the Previous 6 Months
Table 2:	List of contracts under USIIP, T1
Table 3:	Parametric Measurement Guidelines
Table 4:	Noise Level Guidelines
Table 5:	Monitoring Measurements under Ure-01 Project (A,B,C)
Table 6:	The Schedule of Conducted Audits and Monitoring during the Reporting Period
Table 7:	Actions taken for Implementation of Mitigation Measures under Ure-01 Projects
Table 8:	Status of Findings of ADB Mission Carried Out on 28 September – 2 October 2017
Table 9:	Status of implementation of action plan of January-June 2017
Table 10:	Recommendations to Address Environmental Issues
Table 11:	Schedule of mitigation measures to be implemented by the contractor Under Reg-01 project
Table 12:	The Specific Plan of Environmental Measurement under Ure-01 Project
Table 13:	The Specific Plan for Environmental Measurement under Reg-02 Project
Table 14:	The Specific Plan for Environmental Measurement under Office-01 Project

LIST OF FIGURES:

Figure 1:	Structure Diagram of the Environmental Management Unit of UWSCG
Figure 2:	Structure Diagram of the Agencies Involved in Investment Program Implementation

I. PART I – INTRODUCTION

1.1 Construction activities and project progress during the previous 6 months

1. 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 wastewater treatment plants.
4. Tranche 1 of the Investment Program includes:
 - Construction of Mestia Headworks (MES-01)
 - Improvement of Water Supply Infrastructure in Anaklia, Kutaisi and Poti (REG-01)
 - Construction of Mestia Water Treatment Plant and Reservoirs (REG-02)
 - UWSCG Office Building
 - Construction of the Water Supply Network in Ureki (Ure-01)

The following projects are financed under Tranche 1:

5. **Mestia Water Supply Headworks (Contract MES-01).** The project comprises of the construction of a Tyrolean Weir as intake structure on Mestia Chala River for the capture of raw water. The discharge is estimated at minimum 1,000 liters/second in dry seasons. The location has been chosen for its altitude and the possibility to supply the water treatment plant, the adjoining reservoir and from there the largest part of the distribution network, by gravity. Apart from the intake, the scope of work comprises 10.75 km transmission lines to the site of Water Treatment Plant and a reservoir and the connection of this location to the distribution network.
6. The contract MES-01 was signed on 10 October 2011 with Joint Venture of Dagi LTD – Georgia and Enguri 2006 LTD – Georgia (which changed its corporate name to Enguri - New Construction LTD on 11 April 2013), and the scheduled Time for Completion was on 31 October 2013. The contract has completed the works on the reservoir, the intake, and the transmission pipeline,

including its testing and the installation of the last section in the LARP Corridor. LARP compliance report was issued by EPTISA in July 2014. Taking over of the facilities took place on 20 July 2014.

- 7. Kutaisi, Poti & Anaklia water supply infrastructures (contract Reg-01).** The scope of works includes improvement of water supply infrastructure in Anaklia, Kutaisi and Poti, in particular, reservoirs and pumping stations, transmission lines and distribution lines of water supply systems as well as a water treatment plant in Poti. The project envisages installation of water pipelines on 96 km. Concrete water reservoirs will be built on 5 places with total capacity of 35,000m³. The project also covers construction of 4 pumping stations (with total capacity of 4,516 m³/h) as well as construction of water treatment facility.
- 8.** United Water Supply Company of Georgia under the Ministry of Regional Development and Infrastructure of Georgia signed a contract (#UWSCG/ICB/CW-2013-REG-01) with Spanish Cobra Instalaciones y Servicios. The Contract was made effective 19 September 2013.
- 9.** Construction activities were completed on 16 May 2016 and Post Construction Environmental Audit was conducted on 21-22 December 2016 by independent consultant.
- 10.** All non-compliances revealed during the Post-Construction Audit and corrective actions with deadlines to improve the situation and to be implemented by Contractor are presented in Table 11 of this report.
- 11. Construction of Office Building of UWSCG in Tbilisi.** Detailed design for construction of a new head office of UWSCG was prepared and funded by GoG. IEE for office building completed and was submitted to ADB. In 2 August 2014 the baseline survey and biodiversity study of the project area was conducted. Public Hearing meeting was held on 2 July 2014.
- 12.** The new construction area is located in the suburb area of the city in close proximity with Tbilisi State University. Number of door-to-door public consultations have been carried out with the local population. The specially developed invitation letters prior to the Public Hearing, signed by the head of UWSCG was distributed among the local population and stakeholders.
- 13.** Due to untimely issuing of permit for cutting of 9 Eldari pine trees by Ecology and Greenery Department of Tbilisi City Hall, the construction works for head office building was suspended. Finally, permission was granted and fees for tree removal was estimated by the Municipality in the amount of GEL 53,000.00. Letter of permission issued by Tbilisi City Hall is attached to this report (Annex H).
- 14.** United Water Supply Company of Georgia under the Ministry of Regional Development and Infrastructure of Georgia signed a contract (#CW/ICB/Office-01) with Georgian Construction Company DAGI Ltd on 1 December 2015. Date of commencement of civil works is December 29, 2015. The original completion date of the works was 21.06.2017. Construction activities have been delayed due to the changes in design and was renovated in October 2017. The new completion date of the works is September 2019.
- 15. MESTIA Water Supply Facilities (Contract REG-02).** The scope of works includes: a new water treatment plant (WTP); the rehabilitation of Tsmiashi spring catchment; a new reservoir at Lanchvali (1,000 m³); a new reservoir at Shgedi (1,000 m³); transmission pipes of approximately 9,200 meters.

16. The Contractor has to design and build a WTP with a treated water standard that complies with the European standard for the drinking water quality and is defined in the Council Directive 98/83/EC. The new WTP will have a design capacity of 80 l/s to serve the projected population in 2040. Some of the components (hydrocyclone, micro-/ultrafiltration, drinking, process and backwash water pumps) to be constructed under this contract will be for half of the design population in 2040 at this stage. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and ProtecnoSrl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014.
17. **Construction of Water Supply and Wastewater Network in Ureki/Phase I (URE-01).** The project is simultaneously financed from Tranches I, II and III and therefore might be some overlap of T1-T3 BAEMRs. The planned works under Tranche I included construction of Res-01 and Res-02 (2 x 3,000 m³ and 1 x 1,200 m³) and one water supply pumping station (78m³/h and 676 m³/h), but currently location of Res-01 is changed. Final design and location is under consideration and will be finalized by the mid of January.
18. The Contract is signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Completion date is scheduled on November 22, 2017. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040.

B. Construction activities and project progress during the previous 6 months

Construction Activities during previous 6 months under URE-01 project (July-December 2017)

Table 1: Project Progress during the Previous 6 Months

URE-01

Site URE-01	Water Mains Installation
Works undertaken during July-December 2017	22.239 km of PE 100 pipes OD 710, SDR 11 installed – 99%
Site	Water network
Works undertaken during July-December 2017	43.25 km of HDPE pipes DN 25-560 – 86%
Site	Sewerage network
Works undertaken during July-December 2017	59.664 km of PE 100 and corrugated pipes OD 110-500 mm, SDR 11 installed – 85%
Site	Construction of Reservoir #1
Works undertaken during July-December 2017	Excavation Works – 100% Drainage Installation Works – 80% Reinforced Concrete Works – 95%
Site	Well Field

Site URE-01	Water Mains Installation
Works undertaken during July-December 2017	Drilling Works – 100%
Site	WS Pumping Station
Works undertaken during July-December 2017	Construction Works – 100%
Site	Sewer PE Pumping Station
Works undertaken during July-December 2017	Installation Works – 80%

REG-02 – Mestia

Mestia - Section	Works
Works undertaken during July-December 2017	Lanchvali Reservoir - 100 %
	Shkedi Reservoir - 99 %
	WTP - 95%
	Transmission main - 99 %

Office-01

Site	Reinforcement Concrete works
Works undertaken during June- December 2017	579m ³ pouring concrete for foundation; 109m ³ pouring concrete for slab/ 79m ³ ; pouring concrete for wall/ 63m ³ ; pouring Concrete for slab preparation.
Site	Demolition works
Works undertaken during June- December 2017	24m ² demolition of elevator shaft/ 12,5m ² demolition of concrete columns.
Site	Excavation works
Works undertaken during June-December 2017	2034m ³ cutting the ground with heavy-equipment.
Site	Hydroisolation works
Works undertaken during June-December 2017	600m ² hydroisolation for concrete wall.

Site	Waste
Works undertaken during June-December 2017	2034m ³ waste disposal from site.

1.2 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

19. 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.
20. 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.
21. 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.
22. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the supervision consultant (SC). 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 of project sites, issues non-compliance notes, prepares quarterly environmental reports and submits these to UWSCG.
23. 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 ¹MoENRP and Local Government

¹ Since December 21 2017, MoENRP and the Ministry of Agriculture of Georgia have merged and become the Ministry of Environmental Protection and Agriculture

- 24. DC is responsible for developing and incorporation of mitigation measures in design and construction.
- 25. 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.
- 26. 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 4 specialists, those are responsible for resettlement, environmental protection and construction permission issues.
- 27. 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

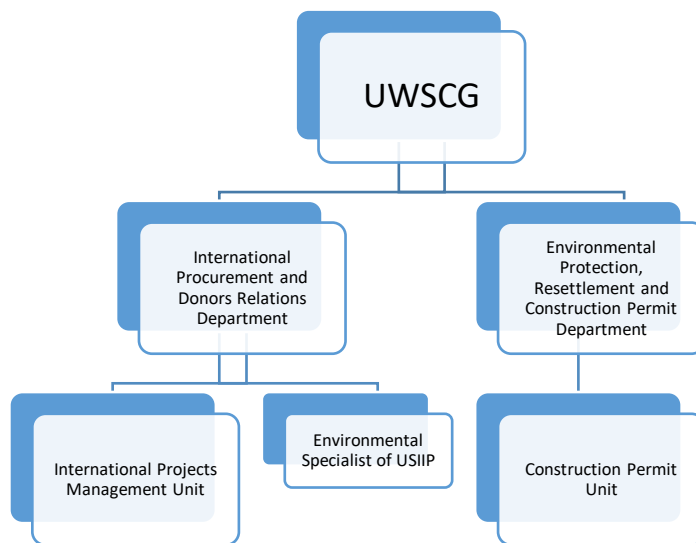
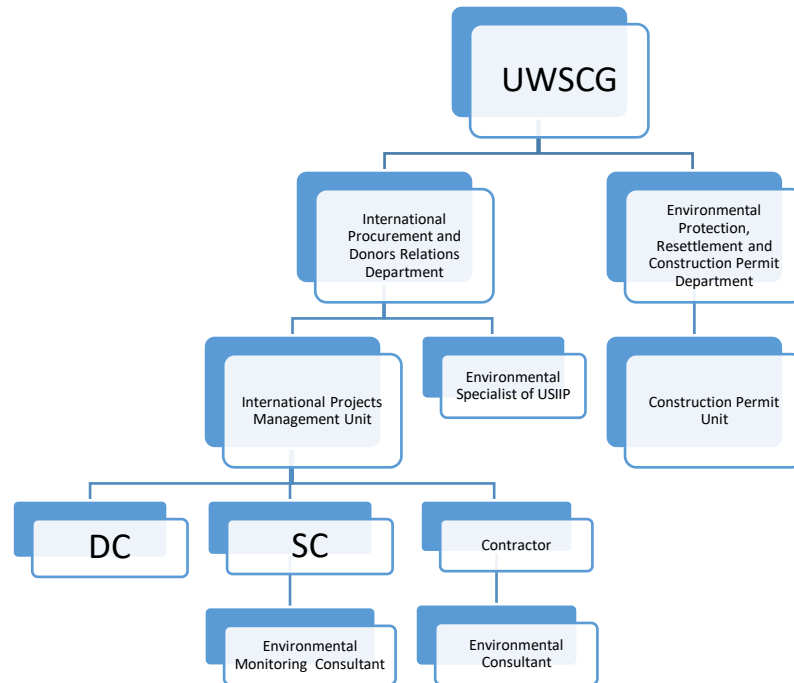


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



1.3 Relationships with Contractors, Owner, Lender, etc

28. Relationships with Contractors, Owner and Lender are considered as normal working relationships. At the working level, coordination of environmental issues has been satisfactory, the government agencies, UWSCG, consultants and contractors are in frequent communication and consultation.
29. 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 and UWSCG; ensure compliance with Investment Program covenants.
30. 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.
31. The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.
32. All SSEMPs are prepared by Contractor, endorsed by SC and approved by UWSCG/ DEPRP.
33. 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 and submits weekly progress reports. Sample weekly report is attached to the proposed EMR (Annex F).

34. ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.
35. To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/DEPRP, Eptisa and Contractors. During the meetings environmental issues and implementation of the mitigation measures are discussed.
36. A Grievance Redress Committee has been established within Ure-01 and Reg-02 projects, to date all grievances either have been dealt to the satisfaction of complainants or are still under discussion. The GRC under Office-01 project will be established within the next reporting period and reflected in EMR January-June 2018.
37. Below are the list of subcontractors of PERI Ltd (Ure-01 project) for Disposal of Municipal Waste and extraction of minerals (gravel, ballast, etc):
- Ureki Municipality - contract was signed for disposal of Municipal Waste from Ureki WWTP site to the Ureki landfill
 - License issued to Ltd Peri by the MoENRP for mineral extraction (gravel, ballast) on the basis of the purchase agreement signed between the Ltd “Peri” and Ltd “Anagi”.
 - Contract was signed with hazardous waste disposal company Ltd “Sanitari” in June 2017.
38. Below are the list of subcontractors of “Ludwig Pfeiffer Hech und Tiefbau GmbH and Co” under the Reg-02/Mestia project:
1. “Insta” LLC
 2. “BREKETI DESIGN” LLC
39. List of Sub-contractors of Peri for disposal of Municipal Waste Water:
- “Solid Waste Management Company of Georgia” – contract was signed for disposal of Solid Waste from Ureki Construction sites.
40. Below are the list of subcontractors of “DAGI” under the Office-01 project:
- “Tbilservice Group” Ltd – Contract was signed for disposal of construction waste, inert waste and solid waste from Tbilisi Construction site.
41. Monthly site meetings have taken place with all Contractors during the reporting period, with a focus on progress and technical problems as well as environmental safeguard issues.
42. Under the Ure-01 and Office-01 projects, contractors have signed agreement with the National Environmental Agency for the monitoring of measurements (dust, CO, NO₂, SO₂, noise) at various construction sites.
43. Project organization for the awarded contracts listed above is given in the Table 2 below.

Table 2: List of contracts under USIIP, Tranche 1 – MES-01, REG-01, REG-02, URE-01, TBI-01, SC/EPTISA

Contract #	Sub-project Title	Employer	Contractor
Contract No: UWSCG/ICB/CW/2011-MES-01	MES-01	UWSCG	Joint Venture of Dagi LTD - Georgia and Enguri 2006 LTD – Georgia (on April 2013 the name of Enguri 2006 LTD was changed to Enguri - New Construction LTD)
Contract No: UWSCG/ICB/CW-2013-REG-01	REG-01	UWSCG	Cobra Instalaciones y Servicios SA (from Spain)
Contract No: UWSCG/USSIP/ICB/CW/REG-02	REG-02	UWSCG	JV of Ludwig Pfeiffer Hoch-und Tiefbau GmbH & Co.KG (Germany) and Protechno Srl (Italy)
Contract No: P43405-ICB-URE-01	URE-01	UWSCG	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)
Contact No: No CW/ICB/Office-01	TBI-01	UWSCG	Dagi LTD (Georgia)
Contract #	SC for T1,T2, T3	Employer	Consultant
Contract No: UWSCG/USIIP	EPTISA	UWSCG	A Consortium of Consulting Firm led by Eptisa Servicios de Ingenieria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)

PART II - ENVIRONMENTAL MONITORING

44. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of DEPRP under USIIP on a regular basis, during the period July-December 2017. Monitoring sheets (Mitigation Compliance & Inspection Monitoring Forms submitted by ADB) were filled in on a daily and/or weekly basis (according to a specific site). Also unscheduled monitoring visits were carried out and non-compliance notices have been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.
45. The following monitoring activities were performed by EPTISA`s environmental specialist during July-December 2017:
- On-site monitoring of EMP compliance during site works;

- Preparation of environmental site inspection report and notification to Contractor by EPTISA’s Environmental Specialist (Annex C – Non-compliance Notices)
- Advised Contactor in baseline measurements conducted by National Environmental Agency at all sites;
- Coordinate actions in general with Contractor’s Environmental Representatives and UWSCG/Environmental Team, including Environmental Specialist of USIIP

46. EPTISA’s Site Team in particular instructed Contractor to comply for the transmission pipelines with the following (as per the agreed H&S Plan):

- H&S rules and procedures are applied at all times by all concerned staff and sub-contractors
- Provide adequate training to staff and sub-contractors on regular basis
- Report H&S issues in daily reports (accident reporting, etc.)
- Enforce the accident prevention plan on regular basis incl. precautions for safety driving, etc.

47. Environmental Monitoring Specialists hired by contractor under the URE-01, Reg-02, and Office-01 projects conducted the day-to-day monitoring of the construction sites, developed the weekly monitoring reports and submitted to SC/Eptisa.

48. Environmental Monitoring Specialist of SC developed quarterly monitoring reports for UWSCG/USIIP based on the weekly reports submitted by Contractor, and based on environmental site inspection.

49. Environmental Specialist (ES) of USIIP performed monitoring of contractor’s performance with the approved EMPs and SSEMPs, environmental standards and other environmental commitments of the contractor. ES developed bi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

50. The USIIP’s Environmental Impact Monitoring and Mitigation is carried out in accordance with the updated EMPs and Site-Specific Environmental Management Plans (SSEMPs) prepared by the Contractors. The construction activities affecting the environment are as follows:

- Excavation works
- Removal of Surplus Soil
- Removal of Vegetation
- Backfilling of Trenches
- Reinstatement Activities

51. 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 guidelines were set as shown in the table 3 below. Construction activates have been carried out under Office-01, Ure-01 and Reg-02 projects are reported in this EMR.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Ure-01		

Parameters	Frequency & Location	Remarks
Air Quality	Air Quality Every 3 months Reservoir #1, Pumping Station, Well Fields, Networks, Transmission Main	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise Every 3 months Reservoir #1, Pumping Station, Well Fields, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	Monthly during the site monitoring.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
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.
Office-01		
Air Quality	Air Quality Every 3 months, construction site	Watering site during excavation works to avoid dust spreading Conduct measurements of

Parameters	Frequency & Location	Remarks
		Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise Every 6 months, construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	During the site inspection and audit	Avoid tree cutting in unavoidable cases, implement the measures defined by the Georgian regulations
Dust generation	During the site inspection and audit	Use tarpaulins to cover loose material that is transported to and from the site by truck Clean wheels and undercarriage of haul trucks prior to leaving construction site
Reg-02/Mestia		
Air Quality	Air Quality Every 6 months Mestia City Center	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise Every 6 months Mestia City Center	Ensure that all equipment & vehicles used for construction activity are in good condition; Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	During the site inspection and audit	Avoid tree cutting in unavoidable cases, implement the measures defined by

Parameters	Frequency & Location	Remarks
		the Georgian regulations
Dust generation	During the site inspection and audit	Use tarpaulins to cover loose material that is transported to and from the site by truck Clean wheels and undercarriage of haul trucks prior to leaving construction site
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.

52. 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.

A. Monitoring Measurement Data

53. Noise impacts should not exceed the levels presented in Table 4, 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 4: Noise Level Guidelines

Noise	dB National Regulations	dB 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

54. Monitoring measurements under Ure-01 was conducted in various construction sites, including nearest sensitive receptors by the National Environmental Agency under the MoENRP in November 2017 (See Table 5 (A) and Annex A). Location and data are included in the table below. The next monitoring measurements will be conducted in March 2018 and results will be reflected in the next January-June EMR 2018. According to data received in December 2017 the obtained results are within the National Environmental Standard (Maximum Permissible Level) and therefore additional mitigations are not required. All measurements were carried out at construction sites, were temporary and conducted during the daytime from 13:00 pm to 15:00pm to correspond with the project working hours. No complaints were received from the local population about the noise during the reporting period.

Monitoring measurement data:

Table 5: Monitoring Measurements under Ure-01 Project (A)

N	Place of measurement	Samples #	Results				
			Dust Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise Db Daytime 07:00 - 22:00
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	Ureki X 0729977 Y 4653057	1	0.002	0.15	<0,001	<0,1	40.6
		2	0.007	0.28	0,001	<0,1	42.4
		3	0.012	0.76	0,001	<0,1	43.0
		4	0.003	0.27	<0,001	<0,1	40.9
2	Shekvetili	1	0.004	0.16	0,006	<0,1	45.1

N	Place of measurement	Samples #	Results				
			Dust Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise Db Daytime 07:00 - 22:00
	X 0728847 Y 4650259	2	0.017	0.17	0,008	<0,1	53.0
		3	0.018	1.42	0,011	<0,1	53.3
		4	0.002	0.31	0,003	<0,1	44.2
3	Laituri X 0740378 Y 4646545	1	0.004	0.17	<0,001	<0,1	40.0
		2	0.015	0.2	0,007	<0,1	52.3
		3	0.015	0.22	0,006	<0,1	51.7
		4	0.011	0.17	<0,001	<0,1	40.2
4	Tsvermagala Reservoir#1 X 0731286 Y 4643708	1	0.001	0.23	<0,001	<0,1	40.5
		2	0.001	0.3	<0,001	<0,1	40.8
		3	0.005	0.61	0,003	<0,1	49.0
		4	0.002	0.32	<0,001	<0,1	40.5

55. Environmental measurements were carried out by the contractor under the Reg-02 /Mestia in the city center. All other project components are located far away from the sensitive receptors. Environmental measurements of air, dust and noise will be carried out in March 2018 and results will be reflected in January-June EMR 2018. According to data received in November 2018 the obtained results are within the National and International Environmental Standard (Maximum Permissible Level) and therefore additional mitigations are not required. Measurement was carried out at construction sites, were temporary and conducted during the daytime from 13:00 pm to 15:00pm to correspond with the project working hours. No complaints were received from the local population about the noise during the reporting period.

Table 5: Monitoring Measurements under Reg-02/Mestia Project (B)

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise db
	National Environmental Standard		0,5	5,0	0,2	0,5	55 Residential;

N	Place of measurement	Coordinates	Results				Noise db
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	
	(Maximum Permissible Level)						Institutional; Educational 70 Industrial; commercial
1	Mestia Town	X 0311771 Y 4767121	0.011	0.3	0,002	<0,1	47.5

56. Monitoring measurements under Office-01 was conducted by the National Environmental Agency under the MoENRP. The monitoring measurements were carried out in one point on the construction site, University Street, Tbilisi. Results of Total Dust, Carbon Monoxide (CO), Nitrogen Dioxide (NO₂) concentrations and Equivalent Noise Level (LA_{eq}) are provided in the Table below (See Table 5 (C) and Annex A). Measurements were carried out on December 18, 2017 in time interval from 11:30 am to 12:30 am with following devices – Элан CO-50 / NO₂ (CO, NO₂), CEL-712 (Dust) and CEL-63X (Noise Level).
57. In the future, during the next reporting period (January-June 2018) environmental measurements will be carried out at the nearest sensitive receptors as well, and if the level of monitoring measurement data will exceed the existing standards and works will be carried out for a long period, additional mitigation measures will be provided.
58. According to data received in December 2017 the obtained results exceed the National and International Environmental Standard (Maximum Permissible Level) of Noise – (55db - residential, institutional and educational), therefore additional mitigations are required and presented in table 11 below - schedule of mitigation measures to be implemented by the contractor Under Reg-01 project.

Table 5: Monitoring Measurements under Office-01 Project (C)

N	Place of measurement	Coordinates	Results				Noise db
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	UWSCG Office Construction Site		0,051	0,82	0,053		65,1

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	Noise db
	University Street						

PART III - ENVIRONMENTAL MANAGEMENT

3.1 The Environmental Management System, site-specific environmental management plan (SSEMP) and work plans

SSEMPs prepared under Ure-01 and Reg-02 project:

59. Following SSEMPs were prepared within the framework of Ure-01, Reg-02 and Office-01 projects during the previous reporting periods by contractor, endorsed by SC and approved by the UWSCG/IPMO/DEPRP: SSEMPs for Well Fields, Reservoir#1 and Pumping Station under Ure-01 Project; SSEMPs for Zargashi and Lanchvali Reservoirs and Water Treatment Plant in Zargashi; SSEMP for Tbilisi Head Office for UWSCG under Office-01 project.

3.2 Site Inspections and Audits

60. Regular site monitoring visits were carried out during the reporting period by the Supervision Consultant Eptisa, UWSCG/ IPMO and Environmental Specialist of USIIP for Ure-01, Reg-02 and Office-01 projects. Some monitoring visits were conducted jointly by the SC/EMS and ES of USIIP. During the field visits a number of EHS issues were noted and brought to the attention of the Environmental Consultant and the H&S manager of Ure-01, Reg-02 and Office-01 projects. Mitigation measures were then discussed with the contractor on-site and detailed instructions were given. Good Practice in compliance with Georgian and international H&S legislation were therefore enforced in accordance with the legislation and the Contractor's contract for Reg-02, Ure-01 and Office-01 projects.
61. Site inspection monitoring and audit during the reporting period have been carried out on: 11 July 2017; 27-28 July 2017; 9-10 August 2017; 22 September 2017; 28-30 September 2017; 1-2 October 2017, 8-10 November 2017 and 12 December 2017. The schedule of conducted monitoring and audit during the reporting period is presented in the Table 6 below.

Table 6: The Schedule of Conducted Audits and Monitoring during the Reporting Period

#	Ure-01, Reg-02 and Tbilisi Office Building Site visits	Organization	Date
1	Day-to-Day Site Inspection	Environmental Specialists of Contractors under Ure-01 and Reg-02 projects	1 July – 30 December 2017
2	Site Monitoring and Inspection	Environmental specialist of USIIP and Environmental specialist of Eptisa	11 July 2017

#	Ure-01, Reg-02 and Tbilisi Office Building Site visits	Organization	Date
3	Site Monitoring	Environmental specialist of Eptisa	27-28 July 2017
4	Site Monitoring	Environmental specialist of Eptisa	9-10 August 2017
5	Site Monitoring	Environmental specialist of Eptisa	22 September 2017
6	Site Audit	Environmental specialist of USIIP environmental specialists of Eptisa and International-Regional Environmental Safeguards Consultant Ms. Ketii Dgebuadze	28-30 September 2017
7	Site Audit	Environmental specialist of USIIP environmental specialists of Eptisa, International-Regional Environmental Safeguards Consultant Ms. Ketii Dgebuadze and Duncan Lang, Environmental Specialist, ADB	1-2 October 2017
8	Site Monitoring	Environmental specialist of Eptisa	8-10 November 2017
9	Site monitoring	Environmental specialist of USIIP and Environmental specialist of Eptisa	12 December 2017

3.3 Non-Compliance Notices

62. The contractors were always informed on the detected non-compliances and were demanded to improve on the deadline set and send photos of improvements made together with the corrective action plans. Environmental team of Eptisa and UWSCG monitored the improvements during the next monitoring visits. Unimproved environmental issues were qualified as non-compliances and notices issued to contractor (Annex C).
63. Additional instructions were provided to the environmental team of the DAGI contractor within the framework of the Office-01 project to implement tree protection measures located outside the construction zone on the access road to a site, from accidental falls due to unpleasant weather conditions (windy or otherwise). The roots of the tree were damaged due to the expansion of the access road to the construction site. Non-Compliance Notices have been issued by the Environmental Specialist of SC under this contract as well (please see Annex C).
64. A summary of the identified issues during the site monitoring by EMS/SC and USIIP ES, recommended mitigations and the status of implementation is presented in Annex D.
65. Non-compliance notices have been issued by SC/Eptisa under Ure-01 project in following dates: 27-28 July 2017, 3 August 2017, 22 September 2017, 7 November 2017, 12 December 2017 (Annex C).

3.4 Corrective Action Plans

66. For the purpose of resolving the observed issues, the Corrective Action Plans have been developed by the contractor. Sample CAP prepared by Contractors are attached to the proposed EMR (Annex G). The regular Environmental Meetings were also carried out with the participation of UWSCG/IPMO/DEPRP, Eptisa, contractors. During the meetings environmental issues and implementation of the mitigation measures were discussed. Agreements were reached that contractors should respond to the findings of the compliance monitoring carried out by SC and UWSCG.

Table 7: Actions taken for Implementation of Mitigation Measures under Ure-01 Projects

URE-01

Construction Site	Environmental Issues	Action taken
Ureki/Reservoir #1	Safety rules during high-altitude works should be respected to avoid workers damage	Completed (Contractor developed Corrective Action Plan, presented in Annex G)
	During high-altitude works special protection equipment should be used	
	Workers always should use complete set of PPE	
	There should be separate waste containers for municipal and hazardous waste at the site with signatures, placed at special designated area with roofing and concrete base	
Ureki/Network	All construction materials (pipes) should be accurately stacked and stored properly at the special dedicated place	Completed
	Special warning and information signs should be installed	Completed
	Trees (nearby territory) should be freed from pipes to avoid its damage	Completed

Construction Site	Environmental Issues	Action taken
Ureki/Well Fields	Protect River bank alongside the Ureki Well fields	SC/EPTISA has started working on design of river bank protection.
	Contractor to install fencings for Ureki Well Fields	Contractor has started fencing works on Well field (Please see Annex B – Photo of well fields).

REG-02 Mestia

Construction Site	Environmental Issues	Action taken
Shkedi reservoir	Top soil at the access road should be managed properly to avoid loosing of it	Completed
	Trees at the construction zone and along the access road should be well protected to avoid its damage	Completed
	Bulks of surplus waste soil should be removed/disposed at the proper place	Completed
	All construction materials should be properly segregated and stored adequately	Partially Completed, Contractor is given the additional instructions to improve the situation on site
	Dust prevention activities (watering of access road) should be provided	Completed
	PPE equipment should be used always and completely by all workers (even personnel of subcontractor)	Completed
	Site internally should be arranged properly and cleaned regularly	Partially Completed
	Ensure Road / track access arrangements to sites	Completed (See Annex G, CAP prepared by Contractor)
	Ensure the access is upgraded prior to operation.	Not Completed (Recommendations to address Environmental

Construction Site	Environmental Issues	Action taken
		Issues are provided in Table 10)
Zargashi Reservoir	Construction territory should be fenced from all sides properly	Partially Completed (Will be finalized in Q1 2018, Recommendations to address Environmental Issues are provided in Table 10)
	Site internally should be arranged properly and cleaned regularly	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)
	Bio toilet at the site should be installed	Completed (See Annex G, CAP prepared by contractor which include improved photos of site)
	All construction materials should be properly segregated and stored adequately	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)
Lanchvali Reservoir	Proper reinstatement should be done after completion of construction activities	Not Completed (Recommendations to address Environmental Issues are provided in Table 10)
	Construction territory should be fenced from all sides properly	Not Completed (Recommendations to address Environmental Issues are provided in Table 10)
	All construction materials should be properly segregated and stored adequately	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)

TBILISI HEAD OFFICE


Construction Site	Environmental Issues	Action taken
Tbilisi Head Office	Surplus/accumilated waste soil piles should be removed from construction areas and disposed in a proper place	Completed
	Waste construction materials should be removed from the site timely and permanently	Completed
	All equipment / vehicles used for construction activity should be in good condition (non-leaking)	Completed
	Fuel/oil spill response items (sand, sawdust, special containers, or special powder) should be available at the site and used when signs of oil leaking	Completed
	Gas containers should not be available/stored under open sky	Completed
	Trees at the construction area should be protected properly to avoid its damage	Completed
	All construction materials should be properly segregated and stored adequately (signed)	Completed
	All workers should be equipped with complete PPE	Completed
	Site internally should be arranged properly and cleaned regularly	Completed
	Waste containers should be proper labeled (Household waste, Hazardous waste and etc.) and installed at the proper organized place (basement, roofing)	Completed
	Oil storage should have proper basement; Containers stored adequately; Oil spill signs removed immediately	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)
	Gas balloons should be managed safely and stored at the proper place with roofing	Not Completed (Recommendations to address Environmental Issues



Construction Site	Environmental Issues	Action taken
		are provided in Table 10)


67. An Annual Environmental Compliance Safeguard Review Mission was carried out on 28 September – 2 October 2017 to review environmental safeguards compliance of Tranche 1 project.

3.5 Actions taken to reflect the findings of ADB mission carried out on 28 September – 2 October 2017:

Table 8: Status of Findings of ADB Mission Carried Out on 28 September – 2 October 2017

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 28 September – 2 October 2017			
Ure-01 Construction of Reservoir #1 in Ureki			
	<u>Waste Management:</u> There were separate waste containers for municipal and hazardous waste at the site with signatures, but they were not placed at special designated area with roofing and concrete base/secondary drip tray	September 2017	Was completed in November 2017 (Please see the improved site photo below)
			
	Conduct training for new environmental specialist of Contractor (Gela Kiknadze) related to ADB safeguards requirements and SSEMP preparation by RETA International-Regional Environmental Consultant.	Q4 of 2017, Q1 of 2018	Will be conducted in Q1 of 2018, and training results will be reflected in EMR January-June 2018.
Reg-02 Construction of Reservoir #1 in Mestia (Shkedi, Zargashi)			
	Contractor to install fencings for all sites (Shgedi and Zargashi) and equipped with lockable gate with proper warning and information signs	Q4 2017 and Q1 2018.	Partially completed, will be finalized in Q1 of 2018 and

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
	to avoid unexpected access of tourists on site		reflected in EMR January-June 2018
	Contractor to improve hazardous waste management on both sites (Shgedi and Zargashi)	Q4 2017	Completed (Please see Annex G, CAP prepared by contractor) 
	Contractor to install bio toilet at Zargashi WTP construction site	Q4 2017.	Completed (Please see Annex G, CAP prepared by contractor) 
	PIU to confirm road / track access arrangements to sites and to ensure the access is upgraded prior to operation.	Q4 2017	Completed (Please see Annex G, CAP prepared by

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
			contractor). 

Actions taken regarding the action plan of the EMR January-June 2017:

Table 9: Status of implementation of action plan of January-June 2017

Specific issues: Recommendations Reg-02/Mestia	Implementation Status
<ol style="list-style-type: none"> 1. Conduct monitoring of environmental quality under Reg-02/Mestia sub-project, at Shkedi reservoir and Zargashi WTP sites by the end of October 2017. 2. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of October 2017. 	Completed in December 2017 Measurement data are reflected in proposed EMR July - December 2017
Recommendations: Ure-01	
<ol style="list-style-type: none"> 3. Conduct monitoring of environmental quality under Ure-01 project at network site, Pumping Station and Rez-01 by the end of October 2017. 	Completed in December 2017 Measurement data are reflected

<p>4. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of October 2017.</p>	<p>in proposed EMR July - December 2017</p>
---	---

3.6 Consultations and Complaints

Public Awareness Activities:

Consultation meetings with the local population

- 68. During the reporting period Public Awareness activities have been carried out only under Ure-01 project.
- 69. A new brochure as well as poster text for Ureki water supply was developed by Supervisor Consultant Eptisa under Ure-01 project. The brochures and posters were used for one to one meetings and door to door campaign with the effected population to raise their awareness on project, safe water supply, sanitation and other related issues.

Trainings

- 70. On site environmental safeguard trainings were organized for URE-01 and reg-02 project contractors on a regular basis, during the site visits. Environmental specialists of the above mentioned contractors are instructed to follow safeguard regulations of ADB/SPS 2009 and EMP/SSEMP requirements. The main issues of discussion were the site management and implementation of mitigation measures in accordance with the SSEMP.
- 71. The contractor DAGI hired a new H&S specialist, after the resumption of construction work. The environmental specialists of UWSCG/USIIP and SC requested a CV to enquire experience of H&S specialist as it is the first case of construction of high floor building under USIIP. It seems that the newly appointed person does not have a specific experience, therefore Environmental Specialist of UWSCG/USIIP requested a list of specific trainings from contractor and SC to ensure capacity building of above mentioned person. The schedule of training courses will be submitted in the next reporting period and will be reflected in EMR January-June 2018.

Grievance redresses mechanism (GRM)

- 72. 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 procedures for GRM System is provided in Annex E.
- 73. During the reporting period up to 7 complains have been received under Ure-01 Project.. These complaints were mostly related to the problems concerning the water supply due to the damages on the water pipes during construction and dropping of waste soil on the street. All complaints were resolved on the first level, by involving UWSCG/service center, contractor and Supervision Company.
- 74. No complaints have been received under Reg-02 and Office-01 Projects during the reporting period.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

75. As presented in this report, Tranche-1 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.
76. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMPs and SSEMPs under Reg-02 and Ure-01 projects.
77. More detailed recommendations with indication of the entities responsible for their implementation are provided in the table 10 below:

Table 10: Recommendations to Address Environmental Issues under Reg-02, Ure-01 and Office-01 projects

Recommendations Reg-02, Ure-01 and Office-01 projects	
Reg-02	
Reg-02 /Mestia Shkedi Reservoir	
Site internally should be arranged properly and cleaned regularly	Contractor to immediately develop Corrective Action Plan how to improve the situation, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements. All improvements to be presented in EMR January - June 2018.
Ensure the access is upgraded prior to operation.	
Zargashi WTP	
Construction territory should be fenced from all sides properly	Contractor to Prepare Corrective Action Plan based on the non-compliance notices issued by SC and implement mitigation measures in accordance with the EMP/SSEMP requirements, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements.
Site internally should be arranged properly and cleaned regularly	
All construction materials should be properly segregated and stored adequately	

Recommendations Reg-02, Ure-01 and Office-01 projects	
Reg-02	
	All improvements to be presented in EMR January – June 2018
Lanchvali Reservoir	
Proper reinstatement should be done after completion of construction activities	Contractor to immediately develop Corrective Action Plan how to improve the situation, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements.
Construction territory should be fenced from all sides properly	
All construction materials should be properly segregated and stored adequately	
Proper reinstatement should be done after completion of construction activities	
Recommendations Ure-01 project	
Ure-01, reservoir	
Site internally should be arranged properly and cleaned regularly	Contactors is instructed to keep the standard and clean the sites regularly
Recommendations Office-01	
Office-01 Construction site and access road	
Trees at the construction area should be protected properly to avoid its damage	Contractor to Prepare Corrective Action Plan how to improve the situation, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements. All improvements to be presented in EMR January – June 2018
Oil storage should have proper basement; Containers stored adequately; Oil spill signs removed immediately	
Gas balloons should be managed safely and stored at the proper place with roofing	
Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).	Instruction are given to contractor to improve the situation and to conduct following mitigation measures: Plan activities in consultation with SC and IPMO/UWSCG

Recommendations Reg-02, Ure-01 and Office-01 projects	
Reg-02	
	<p>so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance;</p> <p>Noisy construction activities will be avoided during night time;</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions;</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise.</p>

78. Mitigation measures to be implemented by the contractor under the Reg-01 project (Construction of Water Supply Infrastructure in Anaklia, Kutaisi and Poti) in accordance to the Final Audit Report are presented in the Table 11 below.

Table 11: Schedule of mitigation measures to be implemented by the contractor Under Reg-01 project

Construction Site	Noncompliance	Corrective Action	Time
Darcheli Reservoir	As the security staff stated, there is no an office for the security staff on the territory of Darcheli reservoir where they can overnight or have a rest. Consequently, they have to overnight and rest in their own car.	At the initial stage, a temporary container is absolutely necessary to install on the territory of Darcheli reservoir with the permanent building to be designed and constructed consequently.	Contractor has constructed Guard house for Darcheli. It's almost 100 % done already.
Nabada Reservoir Site	The site of the reservoir is not leveled and in case of abundant precipitations, large part of the reservoir area is flooded increasing the risk of pollution of the underground waters	The sewage pumping system on the site of Nabada reservoir is not complete contributing to the increased risk of pollution of underground waters	July 2016 Status: Not Completed Will be improved under Pot-01 Project (The bidding process is underway and the Real Construction will be started in February 2018)
Nabada Reservoir Site	The sewage pumping system on the site of Nabada reservoir is not complete contributing to the increased risk of pollution of underground waters	The installation and exploitation of the sewage pumping unit is to be accomplished.	Comment: Will be improved under Pot-01 Project (The bidding process is underway and the Real Construction will be started in February 2018)
Kutaisi/ Kldiashvili Pumping Station	Noise emission of the Pumping Station is obviously high and NOT acceptable and exceed standards.	Partially Completed. Contractor "Cobra" (Project Reg-01) implemented the first stages of noise reduction work, consisting only of installing noise-absorbing panels in the interior parts of doors and windows. Although the situation has been improved, it do not	Will be finalized until the end of January 2018 in accordance of the VO#09. After completion of works noise standards will

Construction Site	Noncompliance	Corrective Action	Time
		<p>solve the problem, and further intervention is necessary.</p> <p>Based on the aforementioned contractor purchased additional noise-insulating materials, which will significantly increase the noise isolation area, and noise will be reduced in accordance with national regulations (45 dB) and International regulations (Please see Table 4).</p> <p>As it was shown in EMR January-June 2017, noise reduction works were included in Variation Order # 09, which has to be implemented by the end of August-2017.</p> <p>Due to the aforementioned facts, Vo # 9 was extended until January 2018.</p>	<p>be met during the operation of Kldiashvili PS.</p> <p>All improvements will be reflected in the next EMR of January-June 2018.</p>

4.2 Action Plan for the next period

- 5. Conduct monitoring of environmental quality under Ure-01 project at network site, Pumping Station and Rez-01 by the end of February 2018.
- 6. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of February 2018.

Table 12: The Specific Plan for Environmental Measurement under Ure-01 Project

Parameters	Quarterly measurement
Dust	March 2018
Vibration	March 2018
carbon monoxide	March 2018
nitrogen dioxide	March 2018
sulfur dioxide	March 2018
Noise	March 2018

7. Conduct monitoring of environmental quality under REG-02 in Mestia on the following sites: Shkedi Reservoir and access road and Zargashi WTP by the end of March 2018.
8. Carry out noise measurement at the nearest sensitive receptors and the construction sites by the end of March 2018.

Table 13: The Specific Plan for Environmental Measurement under Reg-02 Project

Parameters	Quarterly measurement
Dust	March 2018
Vibration	March 2018
carbon monoxide	March 2018
nitrogen dioxide	March 2018
sulfur dioxide	March 2018
Noise	March 2018

9. Conduct monitoring of environmental quality under Office-01 project at Head Office Construction site of UWSCG by the end of March 2018.
10. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of March 2018.

Table 14: The Specific Plan for Environmental Measurement under Office -01 Project

Parameters	Quarterly measurement
Dust	March 2018
Vibration	March 2018
carbon monoxide	March 2018
nitrogen dioxide	March 2018
sulfur dioxide	March 2018
Noise	March 2018

ANNEXES:

ANNEX A: MONITORING MEASUREMENTS DATA

Ure-01

Concentration of harmful substances in atmospheric

Sample place coordinates	Sample N	Noise DB	Concentration mg/m ³					
			Saturated hydrocarbons	Carbon oxide CO	Nitrogen dioxide NO ₂	Dust	Sulfur dioxide SO ₂	Hydrogen sulfide H ₂ S
Tevermagala X:0731286 Y:4643708	1	40.5	0	0.23	-0.001	0.001	<0.1	<0.1
	2	40.8	0	0.3	-0.001	0.001	<0.1	<0.1
	3	49.0	<1	0.61	0.003	0.005	<0.1	<0.1
	4	40.5	0	0.32	-0.001	0.002	<0.1	<0.1
Ureki, X:0729977 Y:4653057	1	40.6	0	0.15	-0.001	0.002	<0.1	<0.1
	2	42.4	<1	0.28	0.001	0.007	<0.1	<0.1
	3	43.0	<1	0.76	0.001	0.012	<0.1	<0.1
	4	40.9	0	0.27	-0.001	0.003	<0.1	<0.1
Shekvetli X:0728847 Y:4650259	1	45.1	0	0.16	0.006	0.004	<0.1	<0.1
	2	53.0	<1	1.17	0.008	0.017	<0.1	<0.1
	3	53.3	<1	1.42	0.011	0.018	<0.1	<0.1
	4	44.2	0	0.31	0.003	0.002	<0.1	<0.1
Laituri X:0746378 Y:4646545	1	40.0	0	0.17	-0.001	0.001	<0.1	<0.1
	2	52.3	<1	0.2	0.007	0.004	<0.1	<0.1
	3	51.7	<1	0.22	0.006	0.004	<0.1	<0.1
	4	40.2	0	0.17	-0.001	0.001	<0.1	<0.1

Executions:
Main specialist
Specialist

Agreed:
Head Environmental Pollution
Monitoring Department

Archie O. Kenya
G. Murgosha
M. Arabidze



საქართველოს გარემოსა და ბუნებრივი რესურსების დაცვის სამინისტრო
MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES PROTECTION OF GEORGIA



გარემოს ეროვნული სააგენტო
NATIONAL ENVIRONMENTAL AGENCY

№ 12/1-1220

18 XII 2017წ.

შპს "დავი"-ს დირექტორს
ბ-ნ მიხეილ შარანგას

ბატონო მიხეილ,

საქართველოს გარემოსა და ბუნებრივი რესურსების დაცვის სამინისტროს სსიპ „გარემოს ეროვნული სააგენტო“-სა და შპს „დავი“-ს შორის 2017 წლის 08 დეკემბერს გაფორმებული ფასიანი მომსახურების შესახებ №ფმ-1/1113 ხელშეკრულების შესაბამისად, გაწვდილი, ე. თბილისში, უნივერსიტეტის ქუჩაზე მდებარე სამშენებლო მოედანზე, თქვენს მიერ მითითებული ატმოსფერული ჰაერის ერთ წერტილში ჩატარებული გაზომვების შედეგებს - მტვერის, ხმაურის, ნახშირბადის მონოაქსიდისა და აზოტის დიოქსიდის შემცველობაზე.

დანართი: 2 გვ. (ქართულ და ინგლისურ ენაზე)

პატივისცემით,

სააგენტოს უფროსი



თამარ ზაგრაძია



Agreement N 3/1113, 08.12.2017

Results of Total Dust, Carbon Monoxide (CO), Nitrogen Dioxide (NO₂) concentrations and Equivalent Noise Level (LAeq) measurements in one point of construction site on The University Street, Tbilisi, set by the customer.

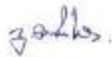
Site	Total Dust, mg/m ³	CO, mg/m ³	NO ₂ , mg/m ³	LAeq, dB
University Street	0,051	0,82	0,053	65,1
MPC	2,0	20,0	5,0	80,0

MPC - maximum permissible concentrations/noise levels in the air of working area.

Measurements were carried out on December 18, 2017 in time interval from 11:30 am to 12:30 am with following devices – Элан CO-50 / NO₂ (CO, NO₂), CEL-712 (Dust) and CEL-63X (Noise Level).

Executors:

G.Narsia



G. Khachishvili



Agreed:

Head of Environmental
Pollution Monitoring Department



M. Arabidze

ANNEX C: NON-COMPLIANCE NOTICES

Reg-02 estia 27 July 2017

Non-Compliance Notice

Project: USIIP	Non-compliance Notice MESTIA
Contract No: REG-02	
Contractor: PFIEFFER	
Reference: MESTIA – RESERVOIRS SITES	

This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN MESTIA

SHGEDI RESERVOIR

- Top soil at the access road should be managed properly to avoid losing of it
- Construction waste materials should be managed properly and disposed at the relevant place
- Trees at the construction zone and along the access road should be well protected to avoid its damage
- Bulks of surplus waste soil should be removed/disposed at the proper place
- All construction materials should be properly segregated and stored adequately
- Dust prevention activities (watering of access road) should be provided
- PPE equipment should be used always and completely by all workers (even personnel of subcontractor)
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within four days (by the 2 August 2017) by the prime Contractor (Pfeiffer).

Ure-01

3 August, 2017 Reservoirs

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI
Contract No: URE-01	
Contractor: PERI	
Reference: UREKI – RESERVOIR	
<p>This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently.</p>	
<p><u>NON-COMPLIANCE IN UREKI</u></p> <p>RESERVOIR</p> <ul style="list-style-type: none"> - Safety rules during high-altitude works should be respected to avoid workers damage - During high-altitude works special protection equipment should be used - Implementing works without special protection equipment is strictly prohibited - Workers always should use complete PPE 	
<p>All these conditions have to be remedied within three days (by the 7 August 2017) by the prime Contractor (Peri).</p>	

Irakli Legashvili EPTISA - Environment	03.08.2017
---	------------

7 November 2017 Ure-01

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI
Contract No: URE-01	
Contractor: PERI	
Reference: UREKI – NETWORK	

This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN UREKI

NETWORK

All construction materials (pipes) should be accurately stacked and stored properly at the special dedicated place

Special warning and information signs should be installed

Trees (nearby territory) should be freed from pipes to avoid its damage

Piles dedicated warehouse should be fenced, protected and organized as suggested for warehouse arrangement

All these conditions have to be remedied within four days (by the 16 July 2017) by the prime Contractor (Peri).

Irakli Legashvili	

7 November 2017, Office-01

Non-Compliance Notice

Project: USIIP	Non-compliance Notice TBILISI
Contract No: TBI-01	
Contractor: DAGI	
Reference: Tbilisi – NEW OFFICE BUILDING FOR UWSCG	

This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN TBILISI

Construction of New Office Building for UWSCG

- Surplus/accumilated waste soil piles should be removed from construction areas and disposed in a proper place
- Waste construction materials should be removed from the site timely and permanently
- All equipment / vehicles used for construction activity should be in good condition (non-leaking)
- Fuel/oil spill response items (sand, sawdust, special containers, or special powder) should be available at the site and used when signs of oil leaking
- Gas containers should not be available/stored under open sky
- Trees at the construction area should be protected properly to avoid its damage
- All construction materials should be properly segregated and stored adequately (signed)
- All workers should be equipped with complete PPE
- Site internally should be arranged properly and cleaned regularly

Date of site visits: 07.11.2017	
Irakli Legashvili EPTISA - Environment	

14 December 2017, Tbilisi Head Office – Office-01 project

Non-Compliance Notice

Project: USIIP	Non-compliance Notice TBILISI
Contract No: TBI-01	

Contractor: DAGI		
Reference: Tbilisi – NEW OFFICE BUILDING FOR UWSCG		
This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .		
<u>NON-COMPLIANCE IN TBILISI</u>		
Construction of New Office Building for UWSCG		
<ul style="list-style-type: none"> - Waste containers should be proper labeled (Household waste, Hazardous waste and etc.) and installed at the proper organized place (basement, roofing) - Oil storage should have proper basement; Containers stored adequately; Oil spill signs removed immediately - Waste and Waste construction materials should be removed from the site timely and permanently - Gas balloons should be managed safely and stored at the proper place with roofing 		
Date of site visits: 13.12.2017		Remediation actions should be implemented within 7 days from issuance of Non compliance notice
Irakli Legashvili -EPTISA Environment		
Kate Chomakhidze – UWSCG USIIP		

Non-Compliance Notice

Project: USIIP	Non-compliance Notice
-----------------------	------------------------------

Contract No: TBI-01	TBILISI
Contractor: DAGI	
Reference: Tbilisi – NEW OFFICE BUILDING FOR UWSCG	
This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .	
<p><u>NON-COMPLIANCE IN TBILISI</u></p> <p>Construction of New Office Building for UWSCG</p> <ul style="list-style-type: none"> - The tree nearby access road should be strengthened and protected to avoid it falling and damage <ul style="list-style-type: none"> - The tree should be fenced by wooden sheets and fenced area should be filled with soil - Soil in the fencing area should be watered periodically 	
All these conditions have to be remedied within four days (by the 25 December 2017) by the prime Contractor (Dagi)	
Date: 21. 12.2017	

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT

(EIA) /INITIAL ENVIRONMENTAL EXAMINATION (IEE) MITIGATION REQUIREMENTS:

Reference	Requirement	Action to date	Action required/comment
Reg-01 Kutaisi Kldiashvili			
	Implement all measures to reduce noise level at Kutaisi Kldiashvili reservoir	Contractor/Cobra has implemented first stage works for noise reduction, that substantially improve the situation	Instruction is given by SC and UWSCG to the contractor to improve the situation in accordance the World Bank EHS and national regulations by the end of January 2018, in accordance with the VO#9
Ure-01: Reservoirs			
	Safety rules during high-altitude works should be respected to avoid workers damage	Completed	Contractor developed Corrective Action Plan and improved the situation within the proposed deadlines (See Annex G)
	During high-altitude works special protection equipment should be used	Completed	
	Workers always should use complete PPE	Completed	
Reg-02 / Mestia Shkedi Reservoirs			
	Construction waste materials should be managed properly and disposed at the relevant place	Partially Completed (Part of the layer is mixed with soil)	Contractor to ensure that top soil is removed and stored separately during excavation works (in accordance with Georgian regulations), and after the construction of the main trunk the same soil shall be replaced in the top, in unpaved areas (Decree of the Government of Georgia #415 - Technical Regulations - On Approval of the "Definition of Soil Fertility Level" and "Soil Conservation and Fertility Monitoring")
	All construction materials should be properly segregated and stored adequately	Partially Completed	Contractor to developed Corrective Action Plan and improved the situation within the

Reference	Requirement	Action to date	Action required/comment
	Dust prevention activities (watering of access road) should be provided	Partially Completed	proposed deadlines, site improvements with relevant photos will be presented in EMR January-June 2018.
	PPE equipment should be used always and completely by all workers (even personnel of subcontractor)	Completed	
	Site internally should be arranged properly and cleaned regularly	Partially completed	
Zargashi Reservoir			
	Construction territory should be fenced from all sides properly	Completed	Contractor developed Corrective Action Plan and improved site within the proposed deadlines (See Annex G)
	Site internally should be arranged properly and cleaned regularly	Completed	
	Bio toilet at the site should be installed	Completed	
	All construction materials should be properly segregated and stored adequately	Completed	
Lanchvali Reservoir			
	Proper reinstatement should be done after completion of construction activities	Not completed	Contractor to developed Corrective Action Plan and improved the situation within the proposed deadlines, site improvements with relevant photos will be presented in EMR January-June 2018.
	Construction territory should be fenced from all sides properly	Partially completed	
	All construction materials should be properly segregated and stored adequately	Partially completed	
Tbilisi Head Office			
	Surplus/accumilated waste soil piles should be removed from construction areas and disposed in a proper place	Completed	Contractor improved the site per recommendations given by SC (Annex C)
	Waste construction materials should be removed from the site timely and permanently	Completed	
	All equipment / vehicles used for construction activity should be in good condition (non-leaking)	Completed	
	Fuel/oil spill response items (sand, sawdust, special containers, or special powder) should be available at the site and used when signs of oil leaking	Completed	

Reference	Requirement	Action to date	Action required/comment
	Trees at the construction area should be protected properly to avoid its damage	Partially Completed	Contractor to developed Corrective Action Plan and improved the situation within the proposed deadlines, site improvements with relevant photos will be presented in EMR January-June 2018.
	All construction materials should be properly segregated and stored adequately (signed)	Completed	
	All workers should be equipped with complete PPE	Completed	
	Site internally should be arranged properly and cleaned regularly	Completed	
	Waste containers should be proper labeled (Household waste, Hazardous waste and etc.) and installed at the proper organized place (basement, roofing)	Completed	
	Oil storage should have proper basement; Containers stored adequately; Oil spill signs removed immediately	Not Completed	
	Waste and Waste construction materials should be removed from the site timely and permanently	Not Completed	
	Gas balloons should be managed safely and stored at the proper place with roofing	Not Completed	

ANNEX E: Grievance redresses mechanism (GRM)

79. There was no GRM system existing under USIIP before the Reg-01 project. Therefore, there was no structured mechanism and procedure to help the affected population and stakeholders send their grievances related to project-induced environmental impacts and nuisances to UWSCG or directly to the administrative bodies responsible for environmental protection.
80. 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.
81. Any affected person can apply at a UWSCG local service centre 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.
82. 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.
83. The service centre operators, who are trained² 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 system³ 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 Environmental and Resettlement Division, Maka Goderdzishvili.
84. When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the e-Document – Task Management System.
85. 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

² 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.

³The **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 eDocumentservice offers an opportunity to manage, find, and track documents for information-intensive organizations.

- 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
- 86.** 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 head of committee; (ii) 99. 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.
- 87.** 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.
- 88.** 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*

11	სამშენებლო ტერიტორიის შესასვლელზე მოქმედებს მასალების მიწვინობის და დანაწევრების არსაჩვეულებრივი გამოცდის (მატრიცის) გამოცდის რეჟიმი. Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	✓			
12	სამშენებლო ტერიტორიაზე მიწვევის და სასაბურთაო ნივთების შევსების სპეციალური ნივთების ცენტრი, ნივთები, ნივთი-წიბის აქრო და სხვა ნივთები შევსებულია. Availability of proper facilities and resources items (sand, gravel, special containers) at the construction site	✓			
13	საქონლის და სასაბურთაო ნივთების განლაგება სპეციალურად გამოყოფილ ადგილზე. Placement of all and resources containers at the special dedicated place (sand, gravel and materials bin etc)			✓	
14	სამშენებლო ტერიტორიაზე საყოფაცხოვრებო ნარჩენებისა და სასაბურთაო ნივთების განლაგება და შესასვლელის ნივთების აღქმის რეჟიმი (მაგ. "HOUSEHOLD WASTE") Placement of proper household waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓			
15	სამშენებლო ტერიტორიაზე სახიფათო ნარჩენებისა და სასაბურთაო ნივთების განლაგება და შესასვლელის ნივთების აღქმის რეჟიმი (მაგ. "HAZARDOUS WASTE") Placement of proper hazardous waste container at the special dedicated place with relevant indication signs (for example "Hazardous Waste")	✓			
16	სამშენებლო ტერიტორიაზე ან მის გარეშე ტრანსპორტირების მოსაზრების ადგილის მიწვევის და ნივთების აღქმის რეჟიმი (მაგ. P) Arrangement of proper parking area at the adequate place (inside/outside of construction territory with relevant sign (for example P)	✓			
17	სამშენებლო მასალების დაწვინების ტრანსპორტირების დროს ავტოტრანსპორტის სპეციალური საფარიანი საფარი უნდა იყოს გამოყენებული. Use tarpaulins/cover during materials transportation			✓	
18	საბურთაო ნივთების მიწვინობის რეჟიმი უნდა იყოს უზრუნველყოფილი. Dust generation prevention activities (when needed)	✓			
19	მუშაკნი და მუშაკნი ტექნიკური კონსტრუქციის მუშაკნი უნდა იყოს უზრუნველყოფილი სასაბურთაო ნივთების, ხელბეჭდის, ხელბეჭდის, ხელბეჭდის და სხვა სასაბურთაო ნივთების მიწვინობის რეჟიმით. Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓			
20	სამშენებლო მუშაკნი უნდა იყოს უზრუნველყოფილი სპეციალური დამცველი ნივთების მიწვინობის რეჟიმით. Use of special safety equipment during working at heights	✓			
21	სამშენებლო ტერიტორიის რეგულარული დაწვინება. Regularly cleaning of construction territory		✓		
იხილეთ განმარტებაზე დასაბუთებული პირობები		სახელი: Name:	ფიქსირდება: Signature:		

კონტრაქტორი/სამი პასუხისმგებელი contractor/safety of the site (contractor)	კომპანია Company	<i>[Handwritten Signature]</i>
მშენებლის მხატვრობის რეგულირებელი/Construction site Inspector (IC/Inspector)	სახელი Name:	<i>[Handwritten Signature]</i>
კონსტრუქციის სპეციალისტი Contractor's Structural Specialist (contractor)	სახელი Name:	<i>[Handwritten Signature]</i>

შენიშვნა/Comment:



ფოტოების ფაილის სია/Photo Materials:



Office-01 – 11 December 2017

ყოველკვირული გარემოსდაცვითი მონიტორინგი
Weekly Environmental Monitoring

Name of the Contractor and project number/ორ მნიშვნელოვანი კონტრაქტორის სახელი და პროექტის/ლოტის ნომერი	Dagi LTD (საქართველო); თბილისის საბურთალოს რ-5 ყაზბეგის №14 Contact: No CW/ICB/Office-01
კონტრაქტის #: Contract #:	
Description and Location of the Site სამშენებლო საიტის ადგილმდებარეობის აღწერა	This subproject is located in Tbilisi, at the University street. There is no intensive traffic on University street (no traffic lights and traffic jam). Geographically, it is situated at 41°43'07.06", latitude and 44°43'10.48" longitude, app 547m above the SL.
Implementing Agency განსახორციელებელი სააგენტო	შპს ქაქაბიძეების გერმანიის ფაბრიკის კომპანია "United Water Supply Company of Georgia", LLC
Supervisor's Identity (name, last name, contact information and signature) სამშენებლო კომპანიის წარმომადგენლის სახელი, გვარი, საკონტაქტო ინფორმაცია და ხელმოწერა	კონტრაქტორი/Contractor: Signature and stamp/ხელმოწერა და ბეჭედი
Current Stage of Civil Works სამშენებლო სამუშაოების მიმდინარე სტადია	მიმდინარე, On-going
Weather Conditions ამინდის პირობები	Good კარგი

ობიექტის გარემოს დაცვაზე პასუხისმგებელი პირი (კონტრაქტორი) Staff responsible for environment/safety at the site (contractor)	სახელი: ალექსანდრე ტუმბურიძე Name: Alexandre Tchumburidze	ხელმოწერა/ Signature: 
გარემოს დაცვის სპეციალისტი (კონტრაქტორი) Environmental Specialist (contractor)	სახელი: ალექსანდრე ტუმბურიძე Name: Alexandre Tchumburidze	ხელმოწერა/ Signature: 

Date/თარიღი: 11.12.2017.

N	Documents and Facts to be Examined შესამოწმებელი დოკუმენტები და ფაქტები	კ/პ yes	არა/ no	საწიგ Partially	არ ვიცი N.A	შეიშლება/ Comment
I. EMPs/SSEMPs, Protocols and Reports						
1.1	Contractor's Site-specific Environmental Management Plan (SSEMP) is prepared, reviewed and approved by PIU prior to contractor commencing the works. შემუშავებული და დამტკიცებულია ხაიკ- სპეციფიკური გარემოსდაცვითი მართვის გეგმა.	✓				Construction of Head office for United Water Supply Company of Georgia", March 2016
1.2	Construction contractor has National Environmental Specialist in staff. მშენებელ კონტრაქტორს დადებული აქვს ხელშეკრულება აფილირირებულ გარემოსდაცვით სპეციალისტთან.	✓				ხელშეკრულება გაფორმდა პროექტის დაწყებისთანავე
1.3	Construction contractor has International Environmental Specialist in staff. მშენებელ კონტრაქტორს დადებული აქვს ხელშეკრულება საერთაშორისო გარემოსდაცვით სპეციალისტთან.		✓			ხელშეკრულება არა გაფორმებული
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to the Supervision Consultant. მონაცემები გარემოსდაცვითი მართვის გეგმის განმარტების ყოველთვიური ანგარიშები კონტრაქტორის მიერ და წარედგინა კონსულტანტისთვის	✓				ყოველთვიური ანგარიშები კონსულტანტის მიერ ეგზავნება კონტრაქტორს
1.5	Emergency Response Plan is prepared and approved. შემუშავებული და მიღებულია ავარიულ სიტუაციებზე რეაგირების გეგმა.		✓			შემუშავდა კონტრაქტორმა ავარიულ სიტუაციებში მოქმედების გეგმა
1.6	Health and Safety Management Plan is prepared and approved. შემუშავებული და მიღებულია უსაფრთხოების მართვის გეგმა და უსაფრთხოების მართვის სისტემა. მშენებლობის ფაზისთვის.		✓			შემუშავდა კონტრაქტორმა უსაფრთხოების მართვის გეგმა
1.7	Complaints log exists on construction site. საჩივრების ჟურნალი არსებობს სამშენებლო საიტზე.	✓				სამშენებლო საიტზე არსებობს საჩივრების ჟურნალი
3.3	სამშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული განმარტებული და საინფორმაციო ნიშნების განთავსება Placement of standard warning and information signs at the perimeter and inside of construction area	✓				სამშენებლო ტერიტორიაზე არსებობს განმარტებული და საინფორმაციო ნიშნები
3.4	ღია დატოვებულ თხილამურზე და ქვეზე უსაფრთხოების ღერძების, საჩივრების და განმარტებული ნიშნების განთავსება Installation of safety signs/tapes and trench side barriers around of open trenches	✓				ღია დატოვებულ თხილამურზე განთავსებულია უსაფრთხოების მონიღური მკარი გადასასვლელი, უსაფრთხოების ღერძები და ნიშნები
3.5	1.5 მეტრზე მეტი სიღრმის ტრანშეებში კედლების გაძვირება Strengthening of walls of the deep trenches (>1.5m) by boards			✓		1.5 მეტრზე მეტი სიღრმის ტრანშეები ითხრება შესაბამისი წიხტების დაცვით
3.6	დასახლებულ ადგილებში ღია დატოვებულ თხილამურზე დროებითი გადასასვლელის მოწყობა Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas			✓		დასახლებულ ადგილებში ღია დატოვებული თხილამური არ არის
3.7	სამშენებლო ტერიტორიაზე, სახეობების ზონაში არსებული ხეების შემორჩენა (დაზიანების თავიდან აცილების მიზნით) Protect all trees nearby construction zone to avoid its damage	✓				ობიექტის ტერიტორიაზე ხეები დაცულია შემორჩენილია დაზიანებისგან და აღნიშნული შესაბამისი განმარტებული ნიშნებით.
3.8	ექსკავაციის ფრის, წიდავას წაფიფიკირი (დაახლოებით 20-30 სმ სისქის) ზღვრის მოხსნა და განეალკვებულიად გროვებად შენახვა Removal of top soil (about 30 cm depth) and separately storing in appropriate place				✓	ექსკავაციის ფრის მოხსნილია კლიფიანი მიწა რომელიც უკუარჩა ხდება.
3.9	სამშენებლო ნარჩენების და ქარბი ნარჩენი გროვების დროული გატანა/განთავსება Timely removal/disposal of construction waste and surplus waste soil	✓				არ ეტაზე საიტზე არ არის განთავსებული სამშენებლო ნარჩენები და ქარბი ნარჩენი გროვები.
3.10	სამშენებლო ტერიტორიის დაბის საათებში განათება Provide adequate lighting of construction territory	✓				სამშენებლო ტერიტორია განათებულია მარცხ პერიოდებზე
3.11	სამშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დანადგარების ორგანიზებულიად განთავსება (საჭიროებისას გამოყენებისთვის) Proper arrangement of construction site and segregation/storing of construction materials/equipment. (being the material when required)			✓		ტერიტორიაზე არსებობს მასალების და მოწყობილობების განმარტებული ადგილები

3.12	სამშენებლო ტერიტორიაზე საწვების და საბიზო მასალების დაღვრის შედეგების სალიკვიდაჟო საკრების (ჭერის, მსხვინი, შერეო ზომის ავი და სხვა) ხელმისაწვდომობა Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	✓			ტერიტორიაზე ხელმისაწვდომია ჭერის მსხვინი ავი და სხვა.
3.13	საწვების და საბიზო მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადახურულ ადგილებში Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)	✓			ინახება სპეციალურ გამოყოფილ გადახურულ მუხრისაგულ მუხრის მიწისფლ ვლიზე, სად განთავსებულია ცეცხლმაქრის (ABC კატეგორის)
3.14	სამშენებლო ტერიტორიაზე საყოფაცხოვრებო წარწენისთვის თავსაბურიანი კონტეინერის განთავსება და შესაბამისი წარწენით აღჭურვა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓			თავსაბურიანი კონტეინერები განთავსებულია ინიექტის გამოყოფილ კარიბეტრზე
3.15	სამშენებლო ტერიტორიაზე სახედავო წარწენისთვის თავსაბურიანი კონტეინერის განთავსება და შესაბამისი წარწენით აღჭურვა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the special dedicated place with relevant indication signs (for example "Hazardous Waste")	✓			ინიექტის ტერიტორიაზე არის საბიზო წარწენის კონტეინერი
3.16	სამშენებლო ტერიტორიაზე ან მის გარეთ ტრანსპორტისთვის პარკინგის ადგილის მოწყობა და ნიშნით აღჭურვა (მაგ. P) Arrangement of proper Parking area at the adequate place inside/outside of construction territory with relevant sign (for example P)	✓			ინიექტის ტერიტორიაზე მოწყობილია პარკინგის ადგილი
3.17	სამშენებლო მასალების და წარწენის ტრანსპორტირების დროს ეტიკეტრანსპორტის სპეციალური საფარით მარეზერტიო ტერტიოდასხვა)	✓			საეტიოის მარეზენი იხურება მრეზერტიო
	აღჭურვა Use tarpulim cover during materials transportation				
3.18	საჭაროზიდან გამომდინარე მტერის წარმოების პრევენცია Dust generation prevention activities (when needed)	✓			საეტიო მოხრევილია ჭერის ღორღით მომდინარეობს მოწყვეტა მარეზენი
3.19	მუშების და ინჟინერ ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (მაგ. შერტი, ჟოლეტი, ხელთათმანი, ჩეცხები, დამცევი ხოვალე, და სხვა) სრულად გამოყენება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓			მუშები ინჟინერ-ტექნიკური პერსონალი და ვიზიტორები სრულიად გამოიყენებენ ინდივიდუალური დაცვის საშუალებებს
3.20	სიმაღლეზე მუშაობის დროს სპეციალური დამცევი აღჭურვილობის გამოყენება Use of special safety equipment during working at heights	✓			გამოიყენება სპეციალური დამცევი უსაფრთხოების ჭმარი
3.21	სამშენებლო ტერიტორიის მუდმივად დალაგება და დასუფიოცება Regularly cleaning of construction territory	✓			მუდმივად სავალია სავალი მუდმივი შეიქველურება ინჟინერტექნიკური პერსონალის მიერ დალაგება და დასუფიოცებაზე
4 Monitoring Measurements					
4.1	Monitoring measurement data (air, water, soil, erosion, noise, dust, vibration, etc). წყლის, ჰერის, ვიზიტორის, ვიზიტორის, მტერის და ნიადაგის მონიტორინგის გარეშე მონიტორინგი.	✓			მონიტორინგის გარეშე მონიტორინგი ხდება სხვა-სხვა მონიტორინგის ცეცხლმაქრის შესაბამისად (ცვარტალური)
5 Top Soil Protection					
5.1	Topsoil is stripped and stored according to standard procedures and used further for landscaping and reinstatement. ნიადაგის ხოპტუფიოცევი დენის დაცევა	✓			მონიტორინგი და დასუფიოცებულია ტოვ ხოვლი
6 Safety Measures					
6.1	The workers use all personal safety equipment required for individual technological processes (hard hats, gloves, respirators, glasses, etc). მუშები იყენებენ ყველა საჭირო პერსონალური პროექტისთვის აუცილებელ პირად დამცევი საშუალებებს (მაგ. შერტი, ხელთათმანი, რესპირატორები, საოვალეები და ა.შ.)	✓			გამოიყენება მტერის დამცევი რესპირატორი, ვერის დამცევი საშუალებები, უსაფრთხოების დამცევი ხოვალე
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lightning, signs are installed, etc. სამშენებლო ინიექტზე გამოთვებულია ხანძარსაწინააღმდეგევი და საჭიროევი სახედავო დამხრების საშუალო საკრები, საეტიო უსაფრთხოება, განჭევა დამონტაჟებულია, საინჟინერევი დამცევი/საბიზო გარეულია და სხვა...	✓			საეტიო უსაფრთხოება განთავსება დამონტაჟებულია
7 Works Completion					
7.1	After completion of main works, the site undergoes final cleanup, harmonization with outward landscape and landscaping. ძირითად სამუშაოთა დასრულებისას წარმოებს ინიექტის საბოლოო დასუფიოცება, გარე ღანძრუეტიო პარმონიტრება და განჭევა.				შესრულდება სამშენებლო სამუშაოების დასრულების მუდმივ
7.2	After completion of the operations in the quarry or its certain section, the idle material is backfilled, compacted, terraced and harmonized with the landscape. კარიერის ან მისი ცალკეული უბნის ცეცხლუაგევი დასრულებისას წარმოებს ვეტი მასალის უსაფრთხოება, კონსტრუქტრება, ტერტირება, და ღანძრუეტიო პარმონიტრება.				შესრულდება სამშენებლო სამუშაოების დასრულების მუდმივ
7.3	Final Post Construction Environmental Audit/monitoring is conducted and Final Environmental Audit Report is prepared (საბოლოო გარეშის დაცვის მონიტორინგი/აუდიტი მარეზერტიო და საბოლოო გარეშისდაცვის აუდიტის ანგარიში მომზადებულია.				შესრულდება სამშენებლო სამუშაოების დასრულების მუდმივ
					შესრულდება სამშენებლო სამუშაოების დასრულების მუდმივ

ANNEX G: Corrective Action Plan

(A) Corrective Action Plan developed by contractor "Peri" under Ure-01 project

CORRECTIVE ACTION PLAN

Project: USIIP - # 43405
Contract No: MES-REG-02
Contractor: JV PFIFFER

Contractor's information on Non –Compliance Notices (dated 25/10/2017)

#	Non-compliance	Compliance	Responsible person
1	Skhedi - Contractor should install fencing for site and equipped with lockable gate with proper warning and information signs to avoid unexpected access of tourists on site	Fencing is completed and warning and information signs are installed	Environmental Representative- N. Nepharidze
2	Skhedi - Contractor should improve hazardous waste management on site	Special hazardous waste absorption powder is on site	Environmental Representative – N. Nepharidze
3	Skhedi - Access road during operation stage should be either graveled or asphalted and the access to the site needs to be upgraded prior to operation	Road will be graveled or asphalted after the completion of the project	Environmental Representative – N. Nepharidze
4	Skhedi - PIU to confirm road / track access arrangements to sites and to ensure the access is upgraded prior to operation	It's impossible to upgrade the road as the central water pipes are passed on the left side and the forest on the right side	Environmental Representative – N. Nepharidze
5	Skhedi - Contractor should install lockable gate with proper warning and information signs to avoid unexpected access of tourists on site	The fencing is installed with proper warning and information signs but final lockable gate will be installed after the completion of the project	Environmental Representative – N. Nepharidze
6	Zargashi - Contractor should install fencing for site and equipped with lockable gate with proper warning and information	Fencing is completed and warning and information signs are installed	Environmental Representative –N. Nepharidze

	signs to avoid unexpected access of tourists on site		
7	Zargashi- Contractor should improve hazardous waste management on site	Special hazardous waste absorption powered is on site	Environmental Representative – N. Nepharidze
8	Zargashi- Contractor should install bio toilet	Bio toilet is installed	Environmental Representative – N. Nepharidze
9	Zargashi - Access road during operation stage should be either graveled or asphalted and the access to the site needs to be upgraded prior to operation	Road will be graveled or asphalted after the completion of the project	Environmental Representative – N. Nepharidze
10	Zargashi - PIU to confirm road / track access arrangements to sites and to ensure the access is upgraded prior to operation	It's impossible to upgrade the road as the central water pipes are passed on the left side and the forest on the right side	Environmental Representative – N. Nepharidze
11	Zargashi - Contractor should install lockable gate with proper warning and information signs to avoid unexpected access of tourists on site	The fencing is installed with proper warning and information signs but final lockable gate will be installed after the completion of the project	Environmental Representative – N. Nepharidze

Corrective Action Plan

Ure-01 CAP

Minor						
No	Requirement reference	Details of non-conformity	Corrective Action Taken	Evidence provided	Date reviewed	Reviewed by
1.	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Safety rules during high-altitude works should be respected to avoid workers damage	Appropriate Scaffolds has been installed, with hardened platforms and mid rails. Working at height is performed under permanent supervision of Site HSE Officer.	Please find photo below	07.08.2017	G. Tkemaladze
2.	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	During high-altitude works special protection equipment should be used; Implementing works without special protection equipment is strictly prohibited	Harnesses will be used at the heights. Site Management is requested not to allow person work at heights without harnesses.	---	07.08.2017	G. Tkemaladze
3.	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Workers always should use complete PPE	All site staff are equipped with appropriate PPE; Site HSE Officer to ensure works are performed with all required PPE	Please find photo below	07.08.2017	G. Tkemaladze