Environmental Monitoring Report

Semestral Report
July 2017

GEO: Urban Services Improvement Investment Program – Project 3

Prepared by United Water Supply Company of Georgia, LLC, Government of Georgia for the Asian Development Bank.

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.

BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-023

January-June 2017

Loan Number 3078-GEO (SF)

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 3)

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

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July 2017

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ABBREVIATIONS

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

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PART I – INTRODUCTION

1.1 Construction activities and project progress during the previous 6 months

A. General information about the program/subprojects

1. The present Bi-annual Environmental Monitoring Report covers January-June 2017 time period.

2. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.

3. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.

4. Tranche 3 of the Investment Program includes:

   - Construction of Water Supply and Wastewater Network in Ureki/Phase 3 (URE-01);
   - Construction of Wastewater Treatment Plant in Ureki (URE-02);
   - Construction and Rehabilitation of Water Supply System in Kutaisi/Phase 2 (KUT-01)

The following projects are financed under Tranche 3:

5. **Construction of Water Supply and Wastewater Network in Ureki/Phase 3 (URE-01)**. The project comprises of the construction of 1 water supply pumping station and 31 sewage pumping stations (Shekvetili - 18, Ureki - 13; construction of new reservoirs (2,000 m³ x 3,000 m³ and 1 x 1,200 m³); Distribution network - laying of approximately 70 km water supply pipelines (distribution network will be devided into 3 areas), laying of approximately 70 km sewage pipelines; installation of approximately 1,500 watermeters; Wells - drilling of 10 drinking water wells.

6. **Construction of Wastewater Treatment Plant in Ureki (URE-02).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 6,570 m³/day.

7. **Construction and Rehabilitation of Water Supply System in Kutaisi/Phase 2 (KUT-01).** The project envisages construction of Kvitiri 973 m³/h capacity and Mukhrani 660 m³/h capacity pumping stations; Reservoirs - construction of Near East and Mukhrani reservoirs with the capacity of 9,000 m³ (2x4,000+1,000). Distribution network - 332.1 km.

B. Construction activities implemented during the reporting period (January-June 2017)

Table 1: Project progress during the previous 6 months

KUT-01

Site	Pipe Diameter (mm)	Installed
Pipes, Concrete Surface, Superstructure Works undertaken during Jan-June 2017	**D=25**	**72.9%**
	D=50	**82,9%**
	D=63	**83,1%**
	D=75	**90,8%**
	D=90	**85,0%**
	D=110	**80,4%**
	D=125	**86,3%**
	D=140	**83,5%**
	D=160	**78,4%**
	D=180	**70,1%**
	D=200	**54,1%**
	D=225	**36,0%**
	D=250	**100%**
	D=280	**13,2%**
	D=315	**89,2%**
	D=355	**89.1%**
	D=400	**93,1%**
	Total	**79,7%**
	Concrete Surface	34%
	Superstructure	12%

URE-02

Site	Effluent Pipe
Works undertaken during Jan-June 2017	Effluent collector – 100%
	Construction of WWTP – 96%

URE-01

Site URE-01	Water Mains Installation
Works undertaken during Jan-June 2017	22.074 km of PE 100 pipes OD 710, SDR 11 installed – 99%
Site	Water network

Site URE-01	Water Mains Installation
Works undertaken during January-June 2017	36.744 km of HDPE pipes DN 25-560 – 72.77%
Site	Sewerage network
Works undertaken during January-June 2017	36.466 km of PE 100 and corrugated pipes OD 110-500 mm, SDR 11 installed – 73.95%
Site	Construction of Reservoir #1
Works undertaken during January-June 2017	Excavation Works – 100% Drainage Installation Works – 60%
Site	Well Field
Works undertaken during January-June 2017	Drilling Works – 85%
Site	WS Pumping Station
Works undertaken during January-June 2017	Construction Works – 90%

1.2 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

1. The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.

2. "United Water Supply Company of Georgia" LLC is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. In December 2016 the name of Investment Program Management Office (IPMO) - Strategic Planning and Donors Relation Department under UWSCG changed and became 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 includes Unit of Construction Permit and will consist of five staff members. The new structural changes enter into force from January 2017.

3. 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.

4. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the Supervision Consultant. To ensure the smooth implementation of EMPs and SSEMPs of subprojects, an Environmental Management Specialist (EMS) is employed by the SC/Eptisa. SC/EMS conducts routine observations and surveys, prepares quarterly environmental reports and submits these to UWSCG.

5. The Contractor has the following obligations:
   - to prepare SSEMPs;
   - to employ Environmental Consultant responsible for developing and implementing the construction phase SSEMPs and for providing the corresponding information to UWSCG and SC;
   - to develop Solid Waste Disposal Plan and agreed the MoENRP and Local Government

6. DC is responsible for developing and incorporation of mitigation measures in design and construction.

7. 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.

8. DEPRP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPRP is staffed with a Head of Department. Head of Construction Permission Unit and 3 specialists, those are responsible for resettlement, environmental protection and construction permission issues.

8. 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

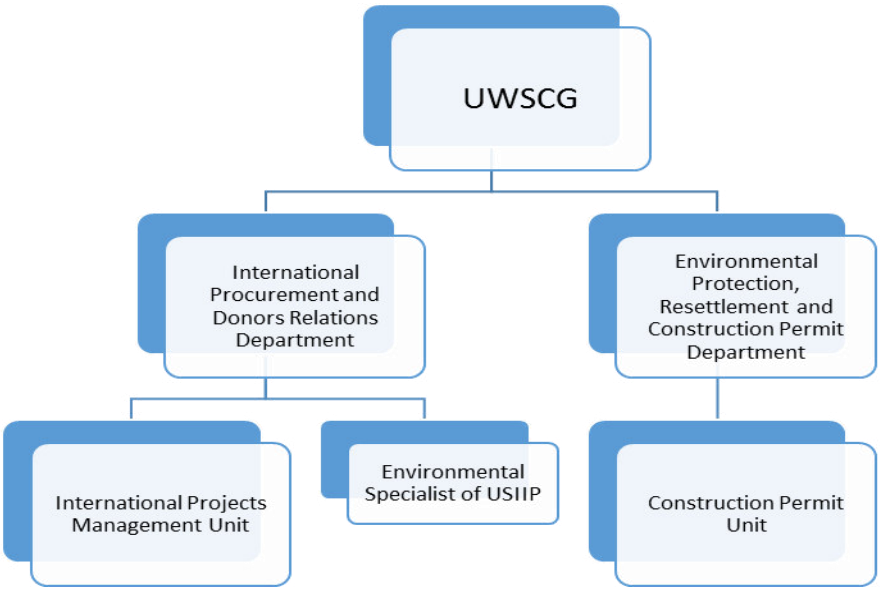
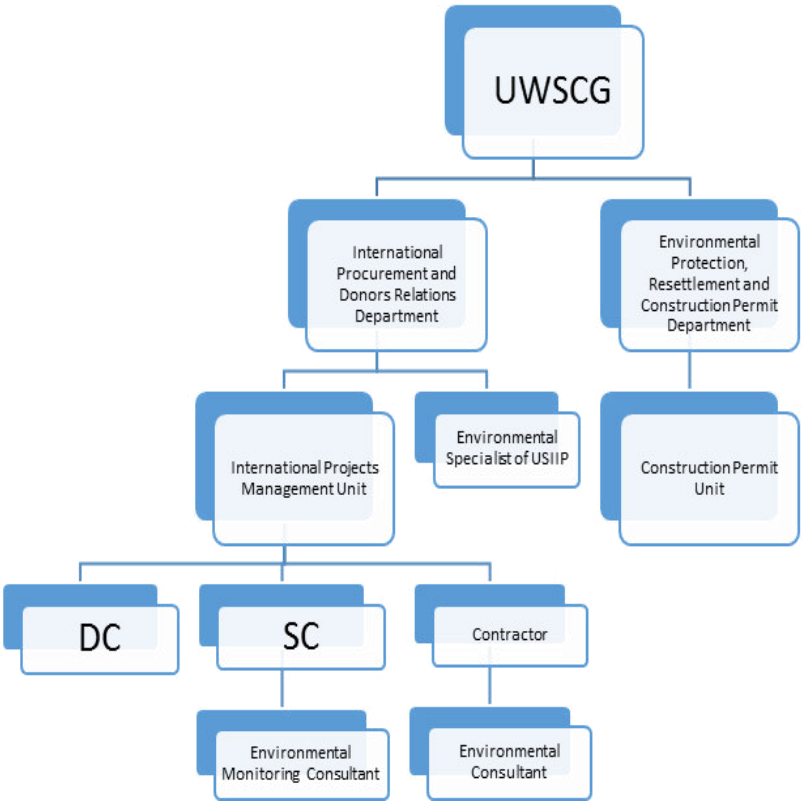


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



1.3 Relationships with Contractors, Owner, Lender, etc

9. Relationships with Contractors, 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.

10. Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for oversee progress and provide guidance on the investment program implementation; convene regular meetings in consultation with the SC Chairperson and UWSCG; ensure compliance with investment program covenants.

11. Oversight of the USIIP with regards to environmental management is the responsibility of the environmental safeguards team, in particular UWSCG/DEPRP and the Environmental Specialist of USIIP.

12. The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.

13. All SSEMPs are prepared by Contractor, endorsed by SC and approved by UWSCG/ DEPRP.

14. SC is responsible for environmental capacity building, monitoring of implementation of SSEMPs and for developing quarterly reports. The Contractor has a full time Environmental Specialist who carries out day to day monitoring as submits a monthly progress reports.

15. ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.

16. To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/DEPRP, Eptisa, Contractors. During the meetings environmental issues and implementation of the mitigation measures are discussed.

17. A Grievance Redress Committee has been established within REG-01 in Kutaisi that will functional for KUT-01 project as well. GRM was established for URE-01 and URE-02 projects within the July-December 2016.

18. Contractor of KUT-01 project operated during the reporting period with the following sub-contractor:
    - LLC "VPC"
    - LLC "Gazmsheni XXI"
    - LLC "HESPIA-MURI"
    - LLC "LAZI"
    - LTD "PROEKTORI"
    - LLC "BORING TECHNOLOGY"
    - LTD "DAGI and COMPANY"
    - LTD "Global-Building"
    - LLC "INTERPROJECT"

19. Below are the list of permits and subcontractors of "SMK Ulusal Insaat Ve Ticaret A.S. (Turkey)"under the Kut-01project
    - Kutaisi Municipality – contract was signed for disposal of Municipal Waste from project sites to the Kutaisi landfill
    - Permit issued to SMK by the Ministry of Environment and Natural Resources Protection of Georgia (Decree #i-902) – on Construction and Exploitation of the Asphalt plant
    - License issued to SMK by the National Environmental Agency of the MoENRP – for mineral extraction (gravel, ballast)

20. Below are the list of sub-contractors 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"
    - Ltd "Sanitari" – contract was signed for disposal of hazardous waste
    - Ltd "Sanitari" – contract was signed for disposal of hazardous waste

21. Below are the list of sub-contractors of Pfeiffer (Ure-02 project) for Disposal of Municipal Waste and extraction of minerals (gravel, ballast, etc)
    - Ozurgeti Municipality - contract was signed for disposal of Municipal Waste from Ureki WWTP site to the Ozurgeti landfill
    - Ltd "Sanitari" – contract was signed for disposal of hazardous waste
    - Georgian Solid Waste management Company for disposal of Solid Waste.

22. Project organization for the awarded contracts listed above is given in the table below:

Table 2: List of contracts under T3 – Kut-01, Ure-01, Ure-02

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date
Contract No: P43405-ICB-KUT-01	Kut-01	UWSCG	SMK Ulusal Insaat Ve Ticaret A.S. (Turkey)	22-Apr-15	8-Jun-18
Contract No: P43405-ICB-URE-02	Ure-02	UWSCG	JV of Ludwig Pfeiffer Hoch-und Tiefbau GmbH and Co.KG ProtechnoSrl (Germany) / Aritim (Turkey)	30-Apr-15	9-Jun-17
Contract No: P43405-ICB-URE-01	Ure-01	UWSCG	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)	28-Oct-14	22-Nov-17

PART II - ENVIRONMENTAL MONITORING

23. 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 January-June 2017. Unscheduled monitoring visits were carried out and non-compliance notes has been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.

24. The monitoring activities included:

- The monitoring of compliance of construction activities under KUT-01 project sites to the overall project EMP/SSEMPs;
- The monitoring of compliance of construction activities under the Ure-01 project sites to the overall project EMP/SSEMPs;
- The monitoring of compliance of construction activities under the Ure-02 project sites to the overall project EMP/SSEMPs

25. Environmental Monitoring Specialist hired by contractor under the KUT-01, URE-01 and URE-02 subprojects conducted the day-to-day monitoring of the construction sites, developed the weekly monitoring reports (see Annex F) and submitted to SC/Eptisa.

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

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

28. The USIIP's Environmental Impact Monitoring and Mitigation is carried out in accordance with the updated EMPs and SSEMPs prepared by the Contractors. The construction activities affecting the environment are as follows:

- Excavation works
- Removal of soil
- Removal of vegetation
- Backfilling of trenches
- Reinstatement activities

29. 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. Kut-01, Ure-01 and Ure-02 are reported in this EMR.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Kut-01		
Air Quality	Every 3 months Mukhnari Reservoir, Networks, Transmission Main	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m3; CO Mg/m3; NO2 Mg/m3; SO2 Mg/m3
Noise	Every 3 months Mukhnari Reservoir, 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 Inspection and audit	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

Parameters	Frequency & Location	Remarks
		removal or protection.
Ure-01		
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/m3; CO Mg/m3; NO2 Mg/m3; SO2 Mg/m3
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.
Ure-02		
Air Quality	Every 3 months WWTP Site, Nearest Residential House	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m3; CO Mg/m3; NO2 Mg/m3; SO2 Mg/m3
Noise	Every 3 months WWTP Site, Nearest Residential House	Ensure that all equipment & vehicles used for construction activity are in

Parameters	Frequency & Location	Remarks
		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.

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

D. Monitoring Measurement Data

31. Environmental monitoring of dust, air condition, noise and vibration under Kut-01, Ure-02 and Ure-01 projects are performed as indicated in the relevant EMPs/SSEMPs (on the bi-annual basis).

32. The parameters measured for the monitoring data at the construction sites are as follows: dust, carbon monoxide, nitrogen dioxide, sulfur dioxide, vibration and noise.

33. 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;	55	45	55	45

Noise	dB National Regulations		dB WHO	
educational				
Industrial; commercial	70	70	70	70

34. Location and data of measured parameters are provided in Annex A. The next monitoring measurements will be conducted in September 2017 and results will be reflected in the next EMRs as it defines in EMP/SSEMPs.

35. In order to conduct measurements under the Kut-01 project, Contract was signed between the Contractor and the Ltd "Eco-Spectri". All above mentioned measurements were carried out in May 2017 at various construction sites in Kutaisi (See Table 5 (A) and Annex A). According to data received in May 2017 the obtained results did not exceed the National Environmental Standard (Maximum Permissible Level) of Dust, CO, NO2, SO2 and Noise, therefore no additional mitigations are required.

36. All measurements were carried out at construction sites, were temporary and conducted during the daytime from 13:00 pm to 15:00pm. No complaints were received from the local population about the noise during the reporting period.

37. In the future, during the next reporting period (July-December 2017) environmental measurements will be carried out at the nearest sensitive receptors as well at the construction site and if the noise level will exceed the noise standards provided in Table 4 and works will be carried out for a long period, additional mitigation measures will be provided.

Table 5: Monitoring measurements under KUT-01 (A)

Plaice of measurement	Dust Mg/m³		CO Mg/m3		No_2 Mg/m3		SO_2 Mg/m3		[1]Noise Db - Daytime 07:00-22:00		Radiation mR/h		Vibro-accelelation m/sek	
	standard	result	standard	result	standard	result	standard	result	standard	result	standard	result	standard	result
At Reservoir 42014i06.07ii N 42042i25.89ii E	0.5	0.1	5.0	2.1	0.2	0.01	0.5	≥ 0.1	55 70	47.6	30	9	4.0	2.3
Tsereteli street (Central street with intensive traffic and commercial facilities) 42016i06.65ii N 42042i14.84ii E		0.1		2.2		0.04		≥ 0.1		65.3		11		2.0

1. [1] In accordance with Georgian regulations - Decree No. 297/N and WHO - 1999, Noise level is 55 dB (residential; institutional; educational) and 70 dB (Industrial; commercial)

Plaice of measurement	Dust Mg/m³		CO Mg/m3		No₂ Mg/m3		SO₂ Mg/m3		[1]Noise Db - Daytime 07:00-22:00		Radiation mR/h		Vibro-accelelation m/sek	
Agmashenebeli street (Central street) 42015i40.76ii N 42041i4ȘȘ2.04ii E		0.2		2.1		0.02		≥ 0.1		70.1		10		0.1
Gamsakhurdia Street (Central street) 42015i37.85ii N 42040i23.35ii E		0.1		2.6		0.02		≥ 0.1		64.4		8		2.1
Mikeladze-mevele street (Commercial street on the suburb of the city) 42016i29.11ii N 42041i15.76ii E		0.3		4.1		0.1		≥ 0.1		69.0		10		3.4

38. Monitoring measurements under Ure-02 projects was conducted by the National Environmental Agency under the MoENRP. Measurements was carried out in May 2017 at WWTP construction sites in Ureki. According to data received in May 2017 (See Table 5 (B) and Annex A) the obtained results did not exceed the National Environmental Standard (Maximum Permissible Level) of Dust, CO, NO2, SO2 and Noise, therefore no additional mitigations are required. All measurements were carried out during the day time 13:00pm-15:00pm.

Table 5: Monitoring measurements under URE-02 (B)

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	**Noise Db - Daytime 07:00-22:00**
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55
1.	Ureki, WWTP construction site	X 0730237 Y 4650518	0.015	0.77	0,004	<0,1	58.2

39. Monitoring measurements under Ure-01 was conducted by the National Environmental Agency under the MoENRP. The monitoring measurements were carried out in various construction sites in May 2017 (See Table 5 (C) and Annex A). Location and data are included in the table below. The next monitoring measurements will be conducted in September 2017 and results will be reflected in the next July-December EMR 2017. According to data received in May 2017 the obtained results exceed the National Environmental Standard (Maximum Permissible Level) of Noise only in Ureki "Magnito" and therefore additional mitigations are required (Please see Table 12 – Recommendations to Address Environmental Issues). All measurements were carried out during the day time 13:00pm-15:00pm.

Table 5: Monitoring measurements under URE-01 (C)

N	Place of measurement	Samples #	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	**Noise Db - Daytime 07:00 - 22:00 Residential; institutional; educational**
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55
1	Village Meria	1	0.001	0.32	<0,001	<0,1	40.3
		2	0.004	0.61	<0,001	<0,1	40.8
		3	0.002	0.52	0,001	<0,1	41.1
		4	0.002	0.42	0,001	<0,1	40.5
2	Ureki near the River Sepa	1	0.002	0.15	<0,001	<0,1	40.3
		2	0.004	0.18	0,001	<0,1	43.4
		3	0.012	0.85	0,001	<0,1	42.0
		4	0.013	0.97	0,001	<0,1	40.9
3	Ureki "Magnito"	1	0.004	0.16	0,007	<0,1	62.3
		2	0.015	2.62	0,006	<0,1	64.9
		3	0.015	2.73	0,005	<0,1	64.3
		4	0.011	1.11	0,006	<0,1	55.1
4	Tsvermagala Reservoir#1 X 0731286 Y 4643708	1	0.001	0.14	<0,001	<0,1	54.3
		2	0.004	0.13	<0,001	<0,1	57.2

N	Place of measurement	Samples #	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	**Noise Db - Daytime 07:00 - 22:00 Residential; institutional; educational**
		3	0.001	0.12	<0,001	<0,1	56.2
		4	0.001	0.04	<0,001	<0,1	55.1

PART III - ENVIRONMENTAL MANAGEMENT

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

40. No SSEMPs have been prepared during the reporting period under Kut-01, Ure-01 and Ure-02 projects.

41. All SSEMPs under Kut-01, Ure-01 and Ure-02 projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 - Ms. Keti Dgebuadze.

42. Status of Environmental Management Plans and SSEMPs prepared within the previous reporting period (July-December 2016) is summarized in the table below:

Table 6: Status of Environmental management plans

Management Plan	Status	Date of Submission
Waste management plan for construction phase Under Ure-01 project	Submitted	To be developed and submitted by the end of December 2016
Environmental Management Plan/Site-Specific EMP (SSEMP) under Ure-01 project Rez-01	Submitted, and approved by UWSCG	SSEMP for Ureki WWTP was prepared in November 2016
Waste management plan for construction phase Under Ure-02 project	Submitted	To be developed and submitted by the end of December 2016
Waste management plan for construction phase Under Kut-01 project	Submitted	To be developed and submitted by the end of December 2016
Environmental Management Plan/Site-Specific EMP (SSEMP) under Kut-01project Godogani Reservoir	Submitted	SSEMP for Godogani Reservoir was prepared and approved in August 2016

3.2 Site Inspections and Audit

43. Regular site monitoring visits were carried out during the reporting period by the Supervision Consultant Eptisa, and Environmental Specialist of UWSCG/USIIP for Ure-01, Ure-02 and Kut-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 Kut-01, Ure-02 and Ure-01project. 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 standards were therefore enforced in accordance with the Contractor's contract for Kut-01, Ure-02 and Ure-01projects.

44. Site inspection monitoring and audit during the reporting period have been carried out on: 6 January 2017, 9-10 February 2017, 13 February 2017, 1-2 March 2017, 19-21 April 2017, 29-30 May 2017, 8-9 June 2017. The schedule of conducted monitoring and audit during the reporting period is presented in the Table 7 below.

Table 7: The Schedule of Conducted Audits and Monitoring during the Reporting Period

#	Kut-01, Ure-01, Ure-Site visits	Organization	Date
1	Day-to-Day Site Inspection	Environmental Specialists of Contractors under Kut-01, Ure-01 and Ure-02 projects	1 January – June 30 2017
2	Site Monitoring	Environmental specialist of Eptisa	6 January 2017
3.	Site Audit	Environmental specialists of USIIP and Eptisa	9-10 February 2017
4.	Site Monitoring	Environmental specialist of Eptisa	13 February 2017
5.	Site Monitoring	Environmental specialist of Eptisa	1-2 March 2017
6.	Site Audit	Environmental specialist of USIIP environmental specialists of and Eptisa and International-Regional Environmental Safeguards Consultant Ms. Keti Dgebuadze	19, 20, 21 April 2017
7.	Site Audit	Environmental specialist of USIIP and Eptisa environmental specialists	29-30 May 2017
8.	Site Monitoring	Environmental specialist of Eptisa	8-9 June 2017

3.3 Non-Compliance Notices

Kut-01, Ure-02 and Ure-01 projects

45. 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).

46. 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.

47. Non-compliance notices have been issued by SC/Eptisa under Kut-01 project in following date: 6 January 2017, 9-10 February 2017, 7 March 2017, 19-21 April 2017, 30 May 2017 (see Annex C).

48. Non-compliance notices have been issued by SC/Eptisa under Ure-01 project in following date: 9-10 February 2017, 30 May 2017 (see Annex C).

49. Non-compliance notice have been issued by SC/Eptisa under Reg-02 project on 29 May (see Annex C).

3.4 Corrective Action Plans

50. For the purpose of resolving the observed issues, the Corrective Action Plans have been developed by the contractor under Kut-01, Ure-01 and Ure-02 projects (Sample CAP in presented in Annex G).

51. The regular Environmental Meetings were also carried out with the participation of UWSCG/IPMO/DEPRP, SC/Eptisa and contractors of Kut-01, Ure-01 and Ure-02 sub-projects. 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 8: Actions taken for implementation of mitigation measures under Kut-01, Ure-01 and Ure-02 projects by the end of June 2017

KUT-01

Construction Site	Environmental Issues	Action taken
Kut-01		
Kutaisi Network		
	Piles of surplus waste soil should be removed from construction area and disposed in a proper place	Completed
	Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Completed
	Construction activities information signs should be installed at each construction segment	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
	Enough and high visible safety signs/tapes should be installed to avoid accident of population	Completed
	Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	Enough and proper wooden/metal walkways/planks across open trenches should be installed	Completed

Construction Site	Environmental Issues	Action taken
	Sidewalks and resident houses nearby areas should be clean from construction materials to avoid disturbance of pedestrians, residents and businesses	Completed
	Nearby areas of resident houses should be clean from construction materials to avoid disturbance of residents and businesses	Completed
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	Trees of nearby construction zone should be protected to avoid its damage	Completed
	Construction activities information signs should be installed at each construction segment	Completed
	Dust prevention activities (watering of territory) should be carried out in dry/windy weather	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
Mukhrani Reservoir		
	Trees at the construction site should be fenced on proper way and protect to avoid its damage	Completed
	Safety signs/tapes and trench side barriers should be installed completely around of excavation of reservoir	Completed
	Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site	Completed
	Transport should be parked only at the parking area	Completed
	All construction materials should be properly segregated and stored in relevant place with signage	Completed
	Construction waste materials should be removed timely and permanently	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
	All workers (even personnel of subcontractor) should be equipped with complete PPE	Completed
	Site internally should be arranged properly and cleaned regularly	Partially Completed (See Table 11)
	Safety rules during high-altitude works should be respected to avoid workers damage	Partially Completed (See Table 11)

URE-01

Construction Site	Environmental Issues	Action taken

Construction Site	Environmental Issues	Action taken
Ureki/Reservoir #1	Trees at the construction site should be protect to avoid its damage	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	Proper warning and information signs should be arranged at the perimeter of the site	Completed
	Internal roads should be arranged properly	Completed
	Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site	Completed
	Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents	Partially Completed (See Table 11)
	Workers always should use complete PPE	Competed
Ureki/Pumping Station	Top soil at the site should be managed properly to avoid its loosing	Completed
	Entrance door of construction site should be in better operational condition and closed as needed	Completed
	Piles of soil at the construction territory should be managed properly (grading/leveling)	Completed
	The site access road and internal roads should be arranged	Completed
	Site internally should be arranged properly with signage and cleaned regularly	Completed
	Gate should be closed and locked to avoid non-authorized entrance at the site	Competed
	Site internally should be arranged properly and cleaned regularly	Completed
Ureki/Network	Accumulated waste soil should be removed from construction area and disposed in a proper place (Network)	Completed
	Top soil at the site is removed and stored separately (PS)	Completed
	High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed
	Construction activities information signs should be installed at each construction segment	Completed
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Partially Completed (See Table 11)
	Where are necessary proper wooden/metal	Partially Completed (See

Construction Site	Environmental Issues	Action taken
	walkways/planks across open trenches should be installed	Table 11)
	Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Partially Completed (See Table 11)
	Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	Partially Completed (See Table 11)
	Trees of nearby construction zone should be protected to avoid its damage	Completed
	Use tarpaulins to cover during materials transportation	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	Workers always should use complete PPE	Completed

Ure-02

Construction Site	Environmental Issues	Action taken
Ure-02		
	Safety signs/tapes and trench side barriers around of deep trench should be installed	Completed
	Tarpaulins cover during materials transportation should always be used	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	All containers of fuel and lubricants should be placed in a special place with roofing (not in a spare parts storage)	Completed
	Dust prevention measures should be actively implemented having a dry season (permanent watering needed)	Completed
	Construction waste materials should be removed from the site timely and permanently	Completed
	Soil (surplus/accumulated soil) for backfilling purposes should be stored properly	Completed
	Safety rules during high-altitude works should be respected to avoid workers damage (special attention to non-standard ladders)	Completed
	All construction materials should be properly segregated and stored adequately	Completed

Construction Site	Environmental Issues	Action taken
	PPE equipment should be used always and completely by all workers	Completed

52. An Annual Environmental Compliance Safeguard Review Mission was carried out by ADB on 19-21 April 2017 to review environmental safeguards compliance of USIIP projects.

3.5 3.5 Actions taken to reflect the findings of ADB mission carried out on 19-21 April 2017.

53. In accordance with the ADB Mission's Note of 19-21 April 2017, only Ure-01 project requires further actions to improve the situation on sites and reflect findings of ADB mission.

Table 9: Status of Findings of ADB Mission Carried Out on 19-21 April 2017

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 19-21 April 2017			
Ure-01 Rehabilitation of the Water Supple System in Ureki			
	Top-soil: Part of topsoil stockpiled according to the GEO regulations has been mixed with subsoil during backfilling and leveling activities of the territory. The Mission requested CC to prepare corrective action plan in cooperation with SC and improve non-compliance till the end of April 2017. Results to be reflected in the next Jan-Jun 2017 Bi-annual EMR.	April 2017	Completed. Corrective action plan regarding incorrect disposal of topsoil was prepared by contractor. Topsoil was separated from subsoil and stockpiled in accordance with Georgian regulations (May 2017).
	Waste Management: There are separate waste containers for municipal and hazardous waste at the site. Construction Contractor does not have subcontractor for hazardous waste disposal. SC in cooperation with RETA Consultant will provide CC the list of companies dealing with hazardous waste.	May 2017	Contract with hazardous waste disposal company Ltd "Sanitari" was signed in June 2017.

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
	Contract will be concluded between CC and the subcontractor company till the end of May 2017.		

Table 10: Status of implementation of action plan of July-December 2016

Specific issues: Recommendations URE-02	Implementation Status
Conduct monitoring of environmental quality under URE-02 in Ureki WWTP site (February 2017) Parameters to be measured: Dust, Carbon monoxide, Nitrogen dioxide, Sulfur dioxide, Noise	Completed in May 2017 Measurement data are reflected in proposed EMR January-June 2017
Submit Company Waste Management Plan to the MoENRP y the end of June 2017	Submitted, 30 June 2017
Recommendations: Ure-01	
Conduct monitoring of environmental quality under Ure-01 project sites (February 2017) Parameters to be measured: Dust, Carbon monoxide, Nitrogen dioxide, Sulfur dioxide, Noise	Completed in May 2017 Measurement data are reflected in proposed EMR January-June 2017
Submit Company Waste Management Plan to the MoENRP by the end of June 2017	Submitted, 30 June 2017
Recommendations: Kut-01	
Conduct monitoring of environmental quality under Kut-01 project sites (February 2017) Parameters to be measured: Dust, Carbon monoxide, Nitrogen dioxide, Sulfur dioxide, Noise	Completed in May 2017 Measurement data are reflected in proposed EMR January-June 2017
Submit Company Waste Management Plan to the MoENRP by the end of June 2017	Submitted, 30 June 2017

3.6 Consultations and Complaints

54. During the reporting period public awareness activities under Kut-01, Ure-01 and Ure-02 projects focused on meetings with local population, local self-governance

representatives and NGO sector to find out main challenges and issues on which local population would like to receive more information.

Consultation meetings with the local population in Kutaisi (Kut-01)

55. During the reporting period public awareness activities in Kutaisi focused on monitoring the grievances and enquiries submitted through UWSCG hotline from the effected population both on water system rehabilitation process as well as the water meter installation process at the apartment buildings. UWSCG/Local Service Center and SC/Eptisa received all the enquiries and grievances regarding the water system rehabilitation problems and made sure that they were answered in a timely and professional manner. In addition site visits and regular meetings with the effected population continued when and as necessary to identify existing challenges, increase general awareness on the project progress, safe water consumption and sanitation. Consultations were held with NGO sector in Kutaisi and program progress was communicated as requested.

Water supply system rehabilitation - monitoring of Grievances submitted through UWSCG hotline

56. Eptisa PA consultants in cooperation with Kutaisi local service center continued daily monitoring of all the enquiries submitted on the UWSCG hotline concerning the KUT-01 project. During the reporting period number of challenges was observed caused by rehabilitation process and the amount of grievances was quite high. During the reporting period the main enquiries were submitted concerning the damages on the existing pipeline, damages causing the waste of water, pipe connection problems (some connections have been missed out), delays and others. The monitoring of hotline is especially important as in some of the cases the construction company may ignores these grievances and population has to wait for several weeks until the problem is fixed or resolved. During the monitoring process UWSCG and Eptisa make sure that the enquiries submitted on UWSCG hotline are communicated to the construction company and are resolved on timely basis.

57. To make the monitoring process more organized GRM mechanism was involved and followed which ensures improved communication with effected population (see Annex E – Detailed Procedures for GRM System Implementation). The UWSCG provides information about all submitted enquiries about the KUT-01 project via hotline to Eptisa local/Kutaisi representatives. Eptisa PA consultant and ES as well as representatives of UWSCG contact each customer to identify the problem, its importance and urgency. Submitted enquiries are than sorted according the urgency and sent to the construction company for further actions. Eptisa PA consultants than monitor and make sure that all the problems were fixed and resolved on time. If not the reminder notes are distributed.

58. During the reporting period total of 92 enquires were submitted to UWSCG via hotline or registering claims at the Local Service Center concerning the KUT -01 project. The table below (Table 11) gives detailed information and analyses of the submitted proposals.

Table 11: List of grievances submitted only During January-March 2017

#	Claims	January	February	March
1	Problems concerning the water supply /limited water supply or no water supply caused by the damages on pipeline, etc.	3	3	2
2	Damages on the pipeline/ water waste caused by the	6	5	7

	damage			
3	Connection problems/missed connections	6	9	3
4	Rehabilitation of the road/other damages caused to infrastructure by the water system rehabilitation process	4	3	3
5	Other (damage to house fencing, blocked access to houses with the help of excavated hard soil, open tranches left over 24 hours, etc.)	5	2	5

Consultations and door to door meetings with the effected population

59. During the reporting period Eptisa PA consultants continued public consultation meetings and door to door campaign with the effected population in Kutaisi to raise the awareness on project progress, importance of safe water supply, sanitation and other relevant issues. One to one meetings were also organized in case the grievances have been submitted directly to Eptisa office. The submitted enquiries are sent to the construction company for further action. In some cases Eptisa local PA consultant conducts site visits with local engineers to identify the problem and meet the effected population.

60. During the reporting period consultations were also held with local civil society representatives interested in program progress. All the enquiries from NGOs and Civil Society were answered in timely and professional manner.

61. In May, Eptisa PA consultants in cooperation with UWSCG Local Service Center organized joint consultation meetings/roundtables with representatives of NGOs and civil society. The progress of the project was discussed during the meeting. Issues about the completion of the Kut-01 project, and further monitoring of the operation process were raised by meeting attendants.

62. Within the Ure-01 and Ure-02 projects SC/Eptisa and UWSCG/Environmental Team carried out door to door consultants with the representatives of multi-story residential houses in Ureki, The aim of the consultation meeting was to raise awareness of local population on Urelki WWS Projects.

63. During public consultations held with representatives of multi-story apartment houses in February 2017, the local population stated against installing one water metering knot for all residents instead of individual meters. Eptisa and UWSCG discussed this issue with the contractor and finally decided to install individual meters.

64. The local self-government representatives asked once again the UWSCG and Eptisa to take into consideration that it would be important if the water supply system will also be constructed for the population living near the Tsvermagala reservoir. Population near the reservoir is distracted by noise without having any benefits from the rehabilitation as process does not envisage water supply system rehabilitation for these settlements. The above issue was discussed within the UWSCG but there is no final decision on it.

65. During meetings with the self-government, road rehabilitation issues have been raised as well, after the installation of pipes in some parts of Ureki. Improvements with proper reinstatement

Trainings carried out by Supervision Company/Eptisa

66. On site environmental safeguard trainings were organized for Kut-01, URE-01 and URE-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.

67. General Training on ADB Environmental Safeguards Requirements was held by RETA 8663 Regional Environmental Consultant of ADB - Ms. Keti Dgebuadze on March 7, 2017. Representatives of Contractors (Kut-01, Ure-01 and Ure--02 projects) and Supervisor Consultant - "Eptisa" as well as USIIP implementation agency - IPMO/DEPRP participated in the training. Ms. Keti Dgebuadze presented an updated checklist for filling by the Contractor on a daily on weekly basis. The Sample checklist filled by contractor is attached to the proposed EMR (Please see Annex F).

Grievance redresses mechanism (GRM)

68. 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 are provided in Annex E.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

69. As presented in this report, Tranche-3 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.

70. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SSEMP's requirements for Kut-01, Ure-01 and Ure-02 projects.

71. More detailed recommendations are with indication of the entities responsible for their implementation are provided in the table below:

Table 12: Recommendations to address Environmental Issues

Environmental issues under KUT-01, Ure-01 and Ure-02 projects	Recommendations
Kutaisi Network	
Construction activities information signs should be installed at each construction segment	Instruction is given to contractor to develop relevant CAP and improve the situation immediately.

Environmental issues under KUT-01, Ure-01 and Ure-02 projects	Recommendations
Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements	Improvements will be presented in next EMR July-December 2017.
Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil	
Dust prevention activities (watering of territory) should be carried out in dry/windy weather	
Kutaisi Mukhrani Reservoir	
Construction waste materials should be removed timely and permanently	Instruction is given to contractor to develop relevant CAP and improve the situation immediately. Improvements will be presented in next EMR July-December 2017.
All workers (even personnel of subcontractor) should be equipped with complete PPE	
Site internally should be arranged properly and cleaned regularly	
Safety rules during high-altitude works should be respected to avoid workers damage	
Ure-01	
Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents	Contractor instructed to immediately install barriers from all side of open excavation of reservoirs, SC and USIIP Environmental Specialist to monitor improvements in early July 2017 and reflect improvements in EMR July-December 2017
Trees at the construction site should be protect to avoid its damage	Contractor instructed to protect trees on construction site to avoid its damage, in unavoidable cases, cut down trees in accordance with Georgian regulations (based on habitats survey within the IEE, there are no red listed species on the proposed project area)
Top soil at the site should be managed properly to avoid its loosing	Contractor to ensure that top soil is removed and stored separately during excavation works (in accordance with Georgian

Environmental issues under KUT-01, Ure-01 and Ure-02 projects	Recommendations
	regulations), and after the construction of the main trunk the same soil shall be replaced in the top, in unpaved areas. Environmental Specialists of SC/Eptisa and USIIP will permanently monitor the site
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 so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance; Noisy construction activities will be avoided during night time; All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions; Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)
Reg-02	
Tarpaulins cover during materials transportation should always be used	Instruction is given to contractor to improve the situation immediately and send improvement photos. Improvements will be presented in next EMR July-December 2017

4.2 Action Plan for the next period

72. Implement Tranche-3 in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.

73. Conduct monitoring of environmental quality under Kut-01, Ure-01 and Ure-02 projects at each construction site in with particular reference to dust, noise and vibration.

74. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of October 2017.

75. The specific plan for measurement is as follows:

Table 13: Conduct monitoring of environmental quality under Kut-01, Ure-01 and Ure-02 projects at each site

Parameters	Quarterly measurement
Dust	September 2017
Vibration	September 2017
Carbon monoxide	September 2017
Nitrogen dioxide	September 2017
Sulfur dioxide	September 2017
Noise	September 2017

ANNEXES:

ANNEX A: MONITORING DATA

Kut-01: Monitoring data, May 2017.

Annex 1: Results of quality measurements

Plaice of measurement	Dust Mg/m³		CO Mg/m3		No_2 Mg/m3		SO_2 Mg/m3		Noise db		Radiation mR/h		Vibro-accelelation m/sek	
	standard	result	standard	result	standard	result	standard	result	standard	result	standard	result	standard	result
At Reservoir 42°14'06.07" N 42°42'25.89" E	0.5	0.1	5.0	2.1	0.2	0.01	0.5	≥ 0.1	70	47.8	30	9	4.0	2.3
Tsereteli street 42°16'06.65" N 42°42'14.84" E		0.1		2.2		0.04		≥ 0.1		65.3		11		2.0
Agmashenebeli street 42°15'40.76" N 42°41'45.04" E		0.2		2.1		0.02		≥ 0.1		70.1		10		0.1
Gamsakhurdia Street 42°15'37.85" N 42°40'23.35" E		0.1		2.6		0.02		≥ 0.1		64.4		8		2.1
Mikeladze-mevele street 42°16'29.11" N 42°41'15.76" E		0.3		4.1		0.1		≥ 0.1		69.0		10		3.4

Irakli kaviladze

IRCA Register principal auditor of EMS systems

Ure-02

Concentration of harmful substances in atmospheric,

Samplin place coordinates	Noise DB	Dust mg/m³	Sulfur dioxide SO_2 mg/m³	Nitrogen dioxide NO_2 mg/m³	Carbon oxide CO mg/m³
Anaklia X 0713640 Y 4697365	55.4	0.051	<0.1	0.003	0.55
Enterprise area X 0714137 Y 4697757	48.2	0.004	<0.1	0.002	0.43
Ureki X 0730237 Y 4650518	58.2	0.015	<0.1	0.004	0.77
Mestia X 0311771 Y 4767121	51.5	0.003	<0.1	0.002	0.37

Executors:
Main specialist — O. Kenia
Main specialist — G.Khachishvilii
specialist — G. Morgoshia

Agreed:
Head Environmental Pollution Monitoring Department — M. Arabidze

Ure-01

ინფორმაცია

ატმოსფერულ ჰაერში დამაბინძურებელ ინგრედიენტთა კონცენტრაციის შესახებ

შპს „ფერი" 20 ივნისი 2017

სინჯის აღების ადგილი, კოორდინატები	სინჯის N	ხმაური დბ	კონცენტრაცია მგ/მ³					
			ნაჯერი ნახშირწყალბადები	ნახშირბადის ოქსიდი CO	აზოტის დიოქსიდი NO_2	მტვერი	გოგირდის დიოქსიდი SO_2	გოგირდწყალბადი H_2S
სოფ.მერია ჭაბურღილი	1	40.3	<1	0.32	<0,001	0,001	<0,1	<0,1
	2	40.8	<1	0.61	<0,001	0,004	<0,1	<0,1
	3	41.1	<1	0.52	0,001	0,002	<0,1	<0,1
	4	40.5	<1	0.42	0,001	0,002	<0,1	<0,1
ურეკი მდ.სეფას მიმდებარედ	1	40.3	0	0,15	<0,001	0,002	<0,1	<0,1
	2	43.4	<1	018	0,001	0,004	<0,1	<0,1
	3	42.0	<1	0.85	0.001	0.012	<0,1	<0,1
	4	40.9	<1	0.97	0.001	0.013	<0,1	<0,1
ურეკი მაგნიტო	1	62.3	<1	0,16	0,007	0,004	<0,1	<0,1
	2	64.0	1	2.62	0,006	0,015	<0,1	<0,1
	3	64.3	1	2.73	0,005	0,015	<0,1	<0,1
	4	55.1	1	1.11	0,006	0,011	<0,1	<0,1
წყერმადალა რეზერვუარი X 0731286 Y 4643708	1	54,3	<1	0,14	<0,001	0,001	<0,1	<0,1
	2	57,2	<1	0,13	<0,001	0,004	<0,1	<0,1
	3	56,2	<1	0,12	<0,001	0,001	<0,1	<0,1
	4	55,1	<1	0,04	<0,001	0,001	<0,1	<0,1

შემსრულებელები:

მთავარი სპეციალისტი ო.ყენია

მთავარი სპეციალისტი ვ.ხაჩიშვილი

სპეციალისტი გ.მორგოშია

შეთანხმებულია:

გარემოს დაბინძურების მონიტორინგის დეპარტამენტის უფროსი მ. არაბიძე

ANNEX B: PROJECT PHOTOS

Kut-01: Mukhnari Reservoir

Kut-01: Access to the Mukhnari Reservoir

Kut-01: Mukhnari Reservoir

Kut-01: Network

Ure-01 Res#1

Ure-01 Network

Ure-01 Pumping Station

Ure-02: WWTP project site

ANNEX C: NON-COMPLIANCE NOTICES

NON-COMPLIANCE NOTICE (06.01.2017) – KUT-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice KUTAISI**
Contract No: KUT-01	
Contractor: SMK	
Reference: **Kutaisi – NETWORK**	

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

NON-COMPLIANCE IN KUTAISI

NETWORK

- Piles of surplus waste soil should be removed from construction area and disposed in a proper place
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Construction activities information signs should be installed at each construction segment
- Enough and high visible safety signs/tapes should be installed to avoid accident of population
- Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements
- Enough and proper wooden/metal walkways/planks across open trenches should be installed
- Sidewalks and resident houses nearby areas should be clean from construction materials to avoid disturbance of pedestrians, residents and businesses
- Use tarpaulins to cover during materials transportation
- Workers always should use complete PPE
- All transmission line construction segments should be cleaned/well organized on regular bases

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Gugunava street

All these conditions have to be remedied within six days (by the 15 January 2017) by the prime Contractor (SMK).

Date of site visits: 06.01.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (07.03.2017) – KUT-01

Non-Compliance Notice

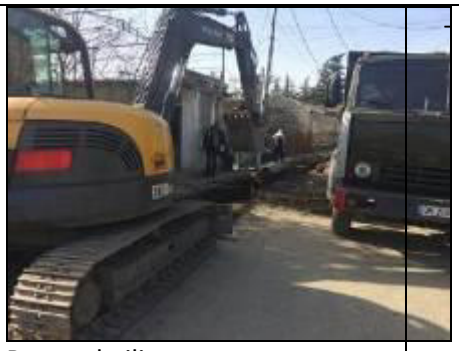
Project: USIIP	**Non-compliance Notice** **KUTAISI**
Contract No: KUT-01	
Contractor: SMK	
Reference: **Kutaisi – MUKHNARI RESERVOIR, NETWORK**	

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

NON-COMPLIANCE IN KUTAISI

NETWORK

- Enough wooden/metal walkways/planks across open trenches should be installed
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Nearby areas of resident houses should be clean from construction materials to avoid disturbance of residents and businesses
- Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements
- Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population
- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil
- Trees of nearby construction zone should be protected to avoid its damage
- Construction activities information signs should be installed at each construction segment
- Dust prevention activities (watering of territory) should be carried out in dry/windy weather
- Use tarpaulins to cover during materials transportation
- All transmission line construction segments should be cleaned/well organized on regular bases (especially after closing streets should be cleaned with relevant brushes)
- Workers always should use complete PPE, especially helmets and boots (even some foremen do not wear PPE)
- Local environment/safety stuff should have available vehicles to manage permanent monitoring of the sites

 Baratashvili str.	Baratashvili str.	Baratashvili str.
Baratashvili str.	Baratashvili str.	Baratashvili str.

Gvelesiani str.

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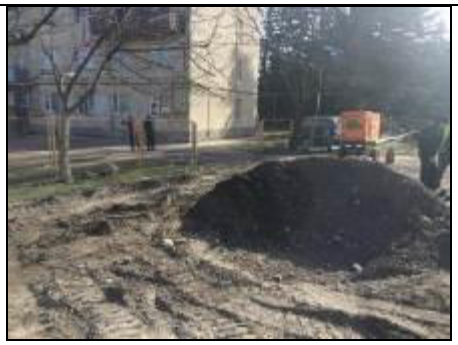


Gamsakhurdia str.

Gamsakhurdia str.

Tevdore 4th turn	Tevdore 4th turn	Tevdore 4th turn
Tevdore 4th turn	Tevdore 4th turn	Tevdore 4th turn

Mukhnari Reservoir

- Trees at the construction site should be fenced on proper way and protect to avoid its damage
- Safety signs/tapes and trench side barriers should be installed completely around of excavation of reservoir
- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site
- Transport should be parked only at the parking area
- All construction materials should be properly segregated and stored in relevant place with signage
- Construction waste materials should be removed timely and permanently
- All workers (even personnel of subcontractor) should be equipped with complete PPE
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within eight days (by the 10 March 2017) by the prime Contractor (SMK).

Date of site visits: 01.03-02.03.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (30.05.2017) – KUT-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice** **KUTAISI**
Contract No: KUT-01	
Contractor: SMK	
Reference: **Kutaisi – NETWORK**	

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

NON-COMPLIANCE IN KUTAISI

NETWORK

- Construction activities information signs should be installed at each construction segment
- Trees of nearby construction zone should be protected to avoid its damage
- Safety signs/tapes and trench side barriers around of all open trenches should be installed to avoid accident of population
- Piles of surplus waste soil should be removed timely from construction area and disposed in a proper place

- Enough and proper wooden/metal walkways/planks across open trenches should be installed
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses
- Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements
- Dust prevention activities (watering of territory) should be carried out in dry/windy weather permanently
- Use tarpaulins to cover during materials transportation (all trucks were observed without tarpaulins)
- Workers always should use complete PPE

Photos of Kutaisi Network

Maisuradze str.	Maisuradze str.	Baratashvili str.
Baratashvili str.	Baratashvili str.	Baratashvili str.
Aghmashenebeli str.	Aghmashenebeli str.	Aghmashenebeli str.

Aghmashenebeli str.	Aghmashenebeli str.	Aghmashenebeli str.
Tsereteli str.	Tsereteli str.	Tsereteli str.
Tsereteli str.	Tsereteli str.	Tsereteli str.

Mukhnari Reservoir

- Trees at the construction site should be fenced on proper way and protect to avoid its damage
- Trench side barriers should be installed all-around of deep excavation
- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site
- All construction materials should be properly segregated and stored adequately
- Safety rules during high-altitude works should be respected to avoid workers damage
- All workers (even personnel of subcontractor) should be equipped with complete PPE
- Site internally should be arranged properly and cleaned regularly

NON-COMPLIANCE NOTICE (21.04.2017) – KUT-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice**
Contract No: KUT-01	**KUTAISI**
Contractor: SMK	

Reference: **Kutaisi**	

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

NON-COMPLIANCE IN KUTAISI

NETWORK

- Safety signs/tapes and trench side barriers around of all open trenches should be installed to avoid accident of population
- Enough and proper wooden/metal walkways/planks across open trenches should be installed
- Piles of surplus waste soil should be removed from construction area and disposed in a proper place
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses
- Trees of nearby construction zone should be protected to avoid its damage
- Construction activities information signs should be installed at each construction segment
- Dust prevention activities (watering of territory) should be carried out in dry/windy weather
- Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements
- Use tarpaulins to cover during materials transportation
- All transmission line construction segments should be cleaned/well organized on regular bases
- Workers always should use complete PPE

Photos of Kutaisi Network

 Tevdore Beri str	 Tevdore Beri str	 Tevdore Beri str
 Tavisupleba str	 Tavisupleba str	 Tavisupleba str

9 Aprili turn	9 Aprili turn	9 Aprili turn
Gugunava str	Gugunava str	Gugunava str

Mukhnari Reservoir

- Trees at the construction site should be fenced on proper way and protect to avoid its damage
- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site
- Transport should be parked only at the parking area
- All construction materials should be properly segregated and stored adequately
- Topsoil disposal location should be well labelled
- Construction waste materials should be removed timely and permanently
- All workers (even personnel of subcontractor) should be equipped with complete PPE
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within four days (by the 1 May 2017) by the prime Contractor (SMK).

Date of site visits: 20.04-21.04.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (10.02.2017) – KUT-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice** **KUTAISI**
Contract No: KUT-01	
Contractor: SMK	
Reference: **Kutaisi – MUKHNARI RESERVOIR**	

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

NON-COMPLIANCE IN KUTAISI

Mukhnari Reservoir

- Trees at the construction site should be fenced on proper way and protect to avoid its damage
- Safety signs/tapes and side barriers should be installed all-around of excavation of reservoir
- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents
- Construction territory should be lighted adequately

- All containers of fuel and lubricants should be installed in a special place
- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site
- Transport should be parked only at the parking area. Vehicles should not be parked at the construction site
- All construction materials should be properly segregated and stored adequately
- Storage and office containers' should be named with signs
- Construction waste materials should be removed timely and permanently
- All workers (even personnel of subcontractor) should be equipped with complete PPE
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (SMK).

Date of site visits: 09.02-10.02.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (10.02. 2017) - Ure-01

Non-Compliance Notice

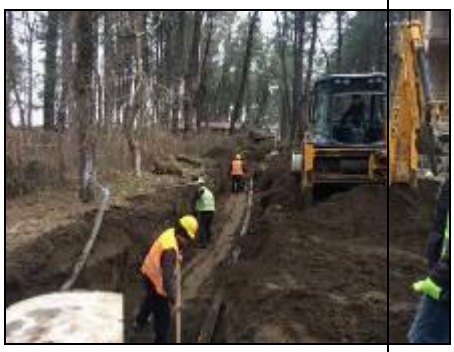
Project: USIIP	**Non-compliance Notice** **UREKI**
Contract No: URE-01	
Contractor: PERI	
Reference: **UREKI – NETWORK, RESERVOIR**	

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

NON-COMPLIANCE IN UREKI

NETWORK

- High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population
- Construction activities information signs should be installed at each construction segment
- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents
- Where are necessary proper wooden/metal walkways/planks across open trenches should be installed
- Accumulated waste soil should be removed from construction area and disposed in a proper place
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses
- Trees of nearby construction zone should be protected to avoid its damage
- Use tarpaulins to cover during materials transportation
- Workers always should use complete PPE
- All network line construction segments should be cleaned/well organized on regular bases



RESERVOIR

- Trees at the construction site should be protect to avoid its damage
- Proper warning and information signs should be arranged at the perimeter of the site
- Internal roads should be arranged properly
- Safety signs/tapes and trench side barriers should be installed around of deep excavation
- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents
- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (Peri).	
Date of site visits: 09.02-10.02.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (10.02. 2017) - Ure-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice** **UREKI**
Contract No: URE-01	
Contractor: PERI	
Reference: **UREKI - UREKI PUMPING STATION**	

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

NON-COMPLIANCE IN UREKI

PUMPING STATION

- Entrance door of construction site should be in better operational condition and closed as needed
- Piles of soil at the construction territory should be managed properly (grading/leveling)
- The site access road and internal roads should be arranged
- Proper place for Parking with relevant sign should be arranged
- Site internally should be arranged properly with signage and cleaned regularly

All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (Peri).

Date of site visits: 09.02 – 10.02.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (30.05. 2017) - Ure-01

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice** **UREKI**
Contract No: URE-01	
Contractor: PERI	
Reference: **UREKI – RESERVOIR, PAMPING STATION**	
This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently.**	

NON-COMPLIANCE IN UREKI

RESERVOIR

- Trees at the construction site and nearby deep excavation zone should be fenced protect to avoid its falling and damage
- Proper warning and information signs should be arranged at the entrance and perimeter of the site
- Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents
- Walls of the deep trenches (>1.5m) should be strengthened to avoid landfall of the soil and accidents
- Workers always should use complete PPE

PAMPING STATION

- Trees at the construction site and nearby should be well protect to avoid its damage
- Trenches should be fenced adequately
- Gate should be closed and locked to avoid non-authorized entrance at the site
- Site internally should be arranged properly and cleaned regularly

All these conditions have to be remedied within four days (by the 10 June 2017) by the prime Contractor (Peri).	
Date of site visits: 29.05-30.05.2017	
Irakli Legashvili EPTISA - Environment	

NON-COMPLIANCE NOTICE (29.05. 2017) – Ure-02

Non-Compliance Notice

Project: USIIP	**Non-compliance Notice** **UREKI**
Contract No: URE-02	
Contractor: PFIEFFER	
Reference: **UREKI – WWTP SITE**	
This notice is to advice 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 UREKI

UREKI WWTP SITE

- Safety signs/tapes and trench side barriers around of deep trench should be installed
- Tarpaulins cover during materials transportation should always be used
- All containers of fuel and lubricants should be placed in a special place with roofing (not in a spare parts storage)
- Dust prevention measures should be actively implemented having a dry season (permanent watering needed)
- Construction waste materials should be removed from the site timely and permanently
- Soil (surplus/accumulated soil) for backfilling purposes should be stored properly
- Safety rules during high-altitude works should be respected to avoid workers damage (special attention to non-standard ladders)
- All construction materials should be properly segregated and stored adequately
- PPE equipment should be used always and completely by all workers
- Solid waste should be removed on timely manner to avoid its long time storage

All these conditions have to be remedied within four days (by the 10June 2017) by the prime Contractor (Pfeiffer).

Date of site visits: 29.05-30.05.2017	
Irakli Legashvili - EPTISA Environment	

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

Reference	Requirement	Action to date	Action required/comment
Kut-01			
Network	Piles of surplus waste soil should be removed from construction area and disposed in a proper place	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Construction activities information signs should be installed at each construction segment	Partially Completed	Contractor is instructed to improve the situation and provide relevant photos
	Enough and high visible safety signs/tapes should be installed to avoid accident of population	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Special blinking signs or flag men where necessary should be provided when passing streets to avoid disturbance of car movements	Not Completed	Contractor is instructed to ensure flag men where necessary when passing streets to avoid disturbance of car movements
	Enough and proper wooden/metal walkways/planks across open trenches should be installed	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to improve the situation
	Sidewalks and resident houses nearby areas should be clean from construction materials to avoid disturbance of pedestrians, residents and businesses	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Nearby areas of resident houses should be clean from construction materials to avoid disturbance of residents and businesses	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard

Reference	Requirement	Action to date	Action required/comment
Kut-01			
Mukhnari Reservoir	Trees at the construction site should be fenced on proper way and protect to avoid its damage	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Safety signs/tapes and trench side barriers should be installed completely around of excavation of reservoir	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Transport should be parked only at the parking area	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	All construction materials should be properly segregated and stored in relevant place with signage	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
	Construction waste materials should be removed timely and permanently	Partially Completed	Contractor is instructed to remove constriction materials timely not to disturb local population
	All workers (even personnel of subcontractor) should be equipped with complete PPE	Completed	Contractor is instructed to keep the same standard
	Site internally should be arranged properly and cleaned regularly	Partially Completed	Contractor is instructed to keep the sites clean and organized
	Safety rules during high-altitude works should be respected to avoid workers damage	Partially Completed	Contractor is instructed strong instruction to follow H&S Standards as for EMP/SSEMPs requirements
	Trees at the construction site should be fenced on proper way and protect to avoid its damage	Completed	Contractor is instructed to keep the same standard
Ure-01 Reservoirs, Pumping Stations			
Well Fields	Top soil at the site is removed and stored separately (PS)	Contractor developed CAP and improved the situation based on the non-compliance	Contractor to keep the standard and to store Top Soil separately during excavation works (in accordance with Georgian regulations - Decree of the

Reference	Requirement	Action to date	Action required/comment
		Notice issued by SC	Government of Georgia #415 - Technical Regulations - On Approval of the "Definition of Soil Fertility Level" and "Soil Conservation and Fertility Monitoring"), and after the construction the same soil shall be replaced in the top, in unpaved areas
	High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	Contractor is instructed to keep the same standard
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Partially Completed	Construction is given instruction to improve the situation. Non-compliance Notice was developed by SC to improve the situation on site.
	Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	Partially Completed	Contractor is instructed to keep the same standard
	Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Partially Completed	Contractor is instructed to keep the same standard
	Use tarpaulins to cover during materials transportation	Not Completed	Despite numerous instructions given by SC and Environmental Specialist of USIIP contractor did not use tarpaulins to cover construction material during construction
	Accumulated waste soil should be removed from construction area and disposed in a proper place (Network)	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	No additional actions are required
	Construction activities information signs should be installed at each construction segment	Contractor developed CAP and improved the situation based on the non-compliance Notice issued by SC	Contractor is instructed to keep the same standard
Ure-01			
Network	Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population
	Use tarpaulins to cover during	Not Completed	Use tarpaulins to cover during

Reference	Requirement	Action to date	Action required/comment
	materials transportation		materials transportation
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Not Completed	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents
	Accumulated waste soil should be removed from construction area and disposed in a proper place	Completed	Accumulated waste soil should be removed from construction area and disposed in a proper place
Ure-02			
	Tarpaulins cover during materials transportation should always be used	Not Completed	Contractor is given instruction to keep the standard
	Safety signs/tapes and trench side barriers around of deep trench should be installed	Completed	Contractor is given instruction to keep the standard
	All containers of fuel and lubricants should be placed in a special place with roofing (not in a spare parts storage)	Completed	Contractor is given instruction to keep the standard
	Dust prevention measures should be actively implemented having a dry season (permanent watering needed)	Completed	Contractor is given instruction to keep the standard
	Construction waste materials should be removed from the site timely and permanently	Completed	Contractor is given instruction to keep the standard
	Soil (surplus/accumulated soil) for backfilling purposes should be stored properly	Completed	Contractor is given instruction to keep the standard
	Safety rules during high-altitude works should be respected to avoid workers damage (special attention to non-standard ladders)	Completed	Contractor is given instruction to keep the standard
	All construction materials should be properly segregated and stored adequately	Completed	Contractor is given instruction to keep the standard
	PPE equipment should be used always and completely by all workers	Completed	Contractor is given instruction to keep the standard

ANNEX E: Detailed Procedures for GRM System Implementation

Grievance redresses mechanism (GRM)

76. 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. As it was mentioned above the GRM in Kutaisi has been operational since April 2014, and the system operates in three stages.

77. 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.

78. The service centre operators, who are trained2 in USIIP/Reg-01project, 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.

79. When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the eDocument – Task Management System.

80. The grievance enters a second stage if it is not solved. In that case, the authorized representative of the local service centre will help the claimant prepare a package of grievance application documents for official submission to the Grievance Redress Committee (GRC). The package contains the following information:

- Name, ID, address and contact details of the claimant
- Description of the essence of the complaint
- Supporting documents and evidences (photos, maps, drawings/sketches, conclusion of experts or any other documents confirming the claim)
- Brief description of the actions proposed for the grievance resolution at the first stage and the reasons why these actions were denied
- Minutes of meetings conducted at the first stage

81. 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)

[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.

[3]The **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.

Representative of local authoritative NGO (according to the claim reference); (v) Stakeholders' female representative;(vi) Stakeholders' informal representative; and (vii) Heads of local municipalities.

82. 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.

83. 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*

ANNEX F: WEEKLY ENVIRONMENTAL MONITORING REPORTS

ყოველკვირეული გარემოსდაცვითი მონიტორინგი

Weekly Environmental Monitoring

Name of the Contractor and project number/lot მშენებელი კონტრაქტორის სახელი და პროექტის/ლოტის ნომერი	SMK Ulusal Insaat Ve Ticaret A.S. (Turkey), Construction and Rehabilitation of Water Supply System in Kutaisi / Phase 2 (KUT-01)
კონტრაქტის #: Contract #:	Contract No: P43405-ICB-KUT-01
Description and Location of the Site სამშენებლო საიტის ადგილმდებარეობის აღწერა	Mukhnari/მუხნარი
Implementing Agency განმახორციელებელი საგანტო	შპს „საქართველოს გაერთიანებული წყალმომარაგების კომპანია" "United Water Supply Company of Georgia", LLC
Date of Visit (Year/Month/Day) ვიზიტის დრო და თარიღი	14 - 21 მაისი/May
Supervisor's Identity (name, last name, contact information and signature) სამეზამთვალველო კომპანიის წარმომადგენლის სახელი, გვარი, საკონტაქტო ინფორმაცია და ხელმოწერა	კონტრაქტორი/Contractor: Signature and stamp/ხელმოწერა და ბეჭედი ირაკლი ლეგაშვილი
Current Stage of Civil Works სამშენებლო სამუშაოების მიმდინარე სტატუსი	*მიმდინარე* *On-going*
Weather Conditions ამინდის პირობები	Cloudy, rainy/ღრუბლიანი,წვიმიანი

ობიექტის უსაფრთხოებაზე/გარემოს დაცვაზე პასუხისმგებელი პირი (კონტრაქტორი) Staff responsible for environment/safety at the site (contractor)	სახელი: მამუკა დარახველიძე Name: Mamuka Darakhvelidze	ხელმოწერა/ Signature: ხელმოწერა/ Signature:
მშენებლობის ინსპექტორი (ზედამხედველი) Construction site inspector (supervisor)	სახელი: ნოდარ მჭედლიშვილი Name: Nodar Mchedlishvili	ხელმოწერა/ Signature: ხელმოწერა/ Signature:

გარემოს დაცვის სპეციალისტი (კონტრაქტორი) Environmental Specialist (contractor)	სახელი: თამთა ქუთათელაძე Name: Tamta Kutateladze	ხელმოწერა/ Signature: ხელმოწერა/ Signature:

N	Documents and Facts to be Examined შესამოწმებელი დოკუმენტები და ფაქტები	კი/ yes	არა/ no	ნაწ-ად Partially	არ ეხება N.A	შენიშვნა/ Comment
1	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. მომზადებული და დამტკიცებულია საიტ- სპეციფიკური გარემოსდაცვითი მართვის გეგმა.	✓				Construction of Water Supply System in Kutaisi - phase II
1.2	Construction contractor has National Environmental Specialist in staff. მშენებელ კონტრაქტორს დაფიქსირებული აქვს ხელშეკრულება ადგილობრივ გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.	✓				
1.3	Construction contractor has International Environmental Specialist in staff. მშენებელ კონტრაქტორს დაფიქსირებული აქვს ხელშეკრულება საერთაშორისო გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.	✓				
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to the Supervision Consultant მომზადებულია გარემოსდაცვითი მართვის გეგმის განხორციელების ყოველთვიური ანგარიშები კონტრაქტორის მიერ და წარდგენილია კონსულტანტისათვის	✓				
1.5	Emergency Response Plan is prepared and approved. მომზადებული და მიღებულია ავარიულ სიტუაციებზე რეაგირების გეგმა .	✓				
1.6	Health and Safety Management Plan is prepared and approved. მომზადებული და მიღებულია ჯანმრთელობის და უსაფრთხოების მართვის გეგმა და ჯანმრთელობა და უსაფრთხოების მართვის სისტემა მშენებლობის ფაზისათვის.	✓				
1.7	Complaints log exists on construction site. პრეტენზიის ჟურნალი/რეგისტრი არსებობს სამშენებლო საიტზე.	✓				
1.8	Site inspection non-compliance notices issued and corrective action requests implemented.	✓				

	მშენებლობის შეფასებებისა და ნებართვების კონტროლისთვის და საკონტროლო ქმედებების განხორციელება.					
1.9	Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings. გადარჩენილი და ხელმოწერილია მუშახელის ტრენინგი ხ ოქმი ჯანდაცვის და უსაფრთხოების საკითხებზე. ტრენინგის ანგარიში მიმზადებულია და ინახება საიტის კანცში.	✓				
2	**Permits, Licenses and Contracts**					
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste/კონტრაქტორს მიღებული აქვს სამშენებლო ნარჩენების სამოლოო განთავსების ნებართვა ან შესაბამისი კონტრაქტი ადგილობრივ ორგანოებთან.	✓				
2.2	The Contractor has a permit for final disposal of municipal waste. კონტრაქტორს მიღებული აქვს საყოფაცხოვრები ნარჩენების სამოლოო განთავსების ნებართვა.	✓				
2.3	The Contractor has executed the contract with the licensed organization on the hand-over and disposal of hazardous waste. კონტრაქტორს გაფორმებული აქვს სახიფათო ნარჩენების გადაცემისა და გატანის ხელშეკრულება ლიცენზიანებულ ორგანიზაციასთან.	✓				
2.4	The Contractor has a license for tree felling/კონტრაქტორს გააჩნია ლიცენზია ხის ჭრისთვის.	✓				
3	**Performance of civil works**					
3.1	სამშენებლო ტერიტორიის სრულად შემოღობვა Adequate fencing of construction area from all sides	✓				
3.2	საკეტიანი შესასვლელი კარის მოწყობა, სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების აღჭურვა Arrangement of lockable gate with standard warning and information signs	✓				
3.3	სამშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების განთავსება Placement of standard warning and information signs at the perimeter and inside of construction area	✓				
3.4	ღიად დატოვებულ თხრილებზე და ვებზე უსაფრთხოების ლენტების, ბარიერების და გამაფრთხილებელი ნიშნების განთავსება Installation of safety signs/tapes and trench side barriers around of open trenches				✓	
3.5	1.5 მეტრზე მეტი სიღრმის ტრანშეებში კედლების გამაგრება				✓	

	Strengthening of walls of the deep trenches (>1.5m) by boards					
3.6	დასახლებულ ადგილებში ღიად დატოვებულ თხრილებზე დროებითი გადასვლელების მოწყობა Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas				✓	
3.7	სამშენებლო ტერიტორიაზე, სამუშაოების ზონაში არსებული ხეების შენარჩუნება (დარიგების თვეიდან აცილების მიზნით) Protect all trees nearby construction zone to avoid its damage	✓				
3.8	ექსკავაციის დროს, ნიადაგის ნაყოფიერი (დაახლოებით 20-30 სმ სიღრმის) ფენის მოხსნა და განცალკევებულად გროვებად შენახვა Removal of top soil (about 30 cm depth) and separately storing in appropriate place	✓				
3.9	სამშენებლო ნარჩენების და ჭარბი ნარჩენი გრუნტის დროული გატანა/განთავსება Timely removal/disposal of construction waste and surplus waste soil	✓				
3.10	სამშენებლო ტერიტორიის ღამის საათებში განათება Provide adequate lighting of construction territory	✓				
3.11	სამშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დანაგვარების ორგანო/სუფთად განთავსება (საჭიროებიდან გამომდინარე) Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	✓				
3.12	სამშენებლო ტერიტორიაზე საწვავის და საპოხი მასალების დაღვრის შედეგების სალიკვიდაციო ნაკრების ქვიშა, ნახერხი, მკვრივ ზოლის ავზი და სხვა) ხელმისაწვდომლობა Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	✓				
3.13	საწვავის და საპოხი მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადახურულ ადგილებში Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)	✓				
3.14	სამშენებლო ტერიტორიაზე საყოფაცხოვრები ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓				
3.15	სამშენებლო ტერიტორიაზე სახიფათო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the	✓				

	special dedicated places with relevant indication signs (for example "Hazardous Waste")					
3.16	სამშენებლო ტერიტორიაზე ან მის გარეთ ტრანსპორტისთვის პარკირების 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)	✓				
3.17	სამშენებლო მასალების და ნარჩენების ტრანსპორტირების დროს ავტოტრანსპორტის სპეციალური საფარით (ბრეზენტით, ტენტითდასხვა) აღჭურვა Use tarpaulins cover during materials transportation		✓			
3.18	საჭიროებისას გამოშვებისგან მტვრის წარმოქმნის პრევენცია Dust generation prevention activities (when needed)	✓				
3.19	მუშების და ინჟინერ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (ჩაფხუტი, ხელთათმანი, ჩექმები, დამცავი სათვალე, და სხვა) სრულად გამოყენება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓				
3.20	სიმაღლეზე მუშაობის დროს სპეციალური დამცავი აღჭურვილობის გამოყენება Use of special safety equipment during working at heights	✓				
3.21	სამშენებლო ტერიტორიის მუდმივად დალაგება და დასუფთავება Regularly cleaning of construction territory	✓				
4	**Monitoring Measurements**					
4.1	Monitoring measurement data (air, water, soil, erosion, noise, dust, vibration, etc). ნყლის, ჰაერის, ვიბრაციის, ეროზიის, ხმაურის, მტვრის და ნიადაგის მონიტორინგის გაზომვების მონაცემები.	✓				დაფიქსირდა ხელმეორეული შესაბამისი გაზომვების ჩატარების შესახებ (ყვარელური)
5	**Top Soil Protection**					
5.1	Topsoil is stripped and stored according to standard procedures and used further for landscaping and reinstatement. ნიადაგის ბოიტენტიალური ფენის დაცვა	✓				
6	**Safety Measures**					
6.1	The workers use all personal safety equipments required for individual technological processes (hard hats, gloves, respirators, glasses, etc.). მუშახელი იყენებს ცალკეული ტექნოლოგიური პროცესებისათვის აუცილებელ პირად დამცავ საშუალებებს (ჩაფხუტები, ხელთათმანები, რესპირატორები, სათვალეები და ა.შ).	✓				
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lightning, signs are installed, etc .	✓				

კოველკვირეული გარემოსდაცვითი მონიტორინგი

Weekly Environmental Monitoring

Name of the Contractor and project number/lot მშენებელი კონტრაქტორის სახელი და პროექტის/ლოტის ნომერი	SMK Ulusal Insaat Ve Ticaret A.S. (Turkey). Construction and Rehabilitation of Water Supply System in Kutaisi / Phase 2 (KUT-01)
კონტრაქტის #: Contract #:	Contract No: P43608-ICB-KUT-01
Description and Location of the Site სამშენებლო საიტის ადგილმდებარეობის აღწერა	ტყიბული/Mukhrari
Implementing Agency განმახორციელებელი საგენტო	შმს „საქართველოს გაერთიანებული წყალმომარაგების კომპანია" "United Water Supply Company of Georgia", LLC
Date of Visit (Year/Month/Day) ვიზიტის დრო და თარიღი	24-21 მაისი/May
Supervisor's Identity (name, last name, contact information and signature) სუფთამხედველი კომპანიის წარმომადგენლის სახელი, გვარი, საკონტაქტო ინფორმაცია და ხელმოწერა	კონტრაქტორი/Contractor: Signature and stamp/ხელმოწერა და ბეჭედი ორაკლი ლეგეშვილი
Current Stage of Civil Works სამშენებლო სამუშაოების მიმდინარე სტატუსი	მიმდინარე On-going
Weather Conditions ამინდის პირობები	ზვრიანი, ცხელი Rainy/cloudy

ობიექტის უსაფრთხოებასა და გარემოს დაცვაზე პასუხისმგებელი პირი (კონტრაქტორი) Staff responsible for environment/safety at the site (contractor)	სახელი: მანუკა დარახველიძე Name: Manuka Darakhvelidze	ხელმოწერა/ Signature:
მშენებლობის ინსპექტორი (ზედამხედველი) Construction site inspector (supervisor)	სახელი: Name:	ხელმოწერა/ Signature:

	სამშენებლო ობიექტზე განთავსებულია სამანქანო-ტექნიკური და სამშრომელო სამკეთილი დასმარების სამართალი ნაგრეხი. სიცივე შესაფერისია, გასაჭეს დამონტაჟებულია, ხანძარსაწინააღმდეგო დაფეთქებები გაკეთებული და სხვ...				
7	**Works Completion**				
7.1	After completion of main works, the site undergoes final cleanup, harmonization with outward landscape and landscaping. ძირითადი სამუშაოთა დასრულებისას წარმოების ობიექტის საბოლოო დალაგებაა, გარე ლანდშაფტთან ჰარმონიზება და გამწვანება.	✓			სამშენებლო სამუშაოების დასრულების შემდეგ/After completion construction works
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 ექსპლუატაციის დასრულებისას წარმოების ფუჭი მასალის უკუსავსება, კომპაქტირება, ტერასირება, და ლანდშაფტთან ჰარმონიზება.			✓	
7.3	Final Post Construction Environmental Audit/monitoring is conducted and Final Environmental Audit Report is prepared //სამშენებლო გარემოს დაცვის მონიტორინგი/აუდიტი ჩატარებულია და საბოლოო გარემოსდაცვის აუდიტის ანგარიში მომზადებული.	✓			სამშენებლო სამუშაოების დასრულების შემდეგ/After completion of construction

შენიშვნა/Comment:

გარემოს დაცვის სპეციალისტი (კონტრაქტორი) Environmental Specialist (contractor)	სახელი: თამთა ქუთათელაძე Name: Tamta Kutateladze	ხელმოწერა/ Signature:

N	Documents and Facts to be Examined შესამოწმებელი დოკუმენტები და ფაქტები	კი/ yes	არა/ no	ნაწილ ად Partially	არ ეხება N.A	შენიშვნა/ Comment
1	**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. შეფასებული და დამტკიცებული საიტ- სპეციფიკური გარემოსდაცვითი მართვის გეგმა.	✓				Construction of Water Supply System un Kutaisi - phase II
1.2	Construction contractor has National Environmental Specialist in staff. მშენებელი კონტრაქტორს დაფიქსირებული აქვს ხელშეკრულება ადგილობრივ გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.	✓				
1.3	Construction contractor has International Environmental Specialist in staff. მშენებელი კონტრაქტორს დაფიქსირებული აქვს ხელშეკრულება საერთაშორისო გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.	✓				
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to the Supervision Consultant. მომზადებული გარემოსდაცვითი მართვის გეგმის განხორციელების ყოველთვიური ანგარიშები კონტრაქტორის მიერ და წარდგენილია კონსულტანტისათვის	✓				
1.5	Emergency Response Plan is prepared and approved. შემუშავებული და მიღებული ავარიული სიტუაციებზე რეაგირების გეგმა.	✓				
1.6	Health and Safety Management Plan is prepared and approved. შემუშავებული და მიღებული ჯანმრთელობის და უსაფრთხოების მართვის გეგმა და ჯანმრთელობა და უსაფრთხოების მართვის სისტემა მშენებლობის პერიოდში.	✓				
1.7	Complaints log exists on construction site. საჩივრების ჟურნალი/ფაქტი არსებობს სამშენებლო საიტზე.	✓				
1.8	Site inspection non-compliance notices issued and corrective action requests implemented.	✓				

	შეუსაბამობის შეტყობინებების მიმართვა და წარდგენა კონტრაქტორისგან და მოთხოვნილი ქმედებების განხორციელება.					
1.9	Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings. გაფორმებული და ხელმოწერილი შემუშავების ტრენინგი ჯ ოქმი ჯანმრთელობა და უსაფრთხოების საკითხებზე. ტრენინგის ანგარიში მომზადებულია და ინახება საიტის კვმზე.	✓				
2	**Permits, Licenses and Contracts**					
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste/კონტრაქტორს მიღებული აქვს სამშენებლო ნარჩენების სანაგვრო განთავსების ნებართვა ან შესაბამისი კონტრაქტი ადგილობრივ ორგანოებთან.	✓				
2.2	The Contractor has a permit for final disposal of municipal waste. კონტრაქტორს მიღებული აქვს საყოფაცხოვრებო ნარჩენების სანაგვრო განთავსების ნებართვა.	✓				
2.3	The Contractor has executed the contract with the licensed organization on the hand over and disposal of hazardous waste. კონტრაქტორს გაფორმებული აქვს სახიფათო ნარჩენების გადაცემისა და გატანის ხელშეკრულება ლიცენზირებულ ორგანიზაციასთან.	✓				
2.4	The Contractor has a license for tree felling/კონტრაქტორს გააჩნია ლიცენზია ხის ჭრისთვის.	✓				
3	**Performance of civil works**					
3.1	სამშენებლო ტერიტორიის სრულად შემოღობვა Adequate fencing of construction area from all sides	✓				
3.2	საკეტიანი შესასვლელი კარის მოწყობა, სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნებით აღჭურვა Arrangement of lockable gate with standard warning and information signs	✓				
3.3	სამშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების განთავსება Placement of standard warning and information signs at the perimeter and inside of construction area	✓				
3.4	ღიად დატოვებულ თხრილებზე და ჭებზე უსაფრთხოების ღობეების, ბარიერების და გამაფრთხილებელი ნიშნების განთავსება Installation of safety signs/tapes and trench side barriers around of open trenches				✓	
3.5	1.5 მეტრზე მეტი სიღრმის ტრანშეებში ეზღუდვის გამაგრება				✓	

	Strengthening of walls of the deep trenches (>1.5m) by boards					
3.6	დასახლებულ ადგილებში ღიად დატოვებული თხრილებზე დროებითი გადასასვლელების მოწყობა Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas				✓	
3.7	სამშენებლო ტერიტორიაზე, სამუშაოების ზონასთან არსებული ხეების შენარჩუნება (დაზიანების თავიდან აცილება მიზნით) Protect all trees nearby construction zone to avoid its damage	✓				
3.8	უმაგალითის დრის, ნიადაგის ნაყოფიერი (დაახლოებით 20-30 სმ სიღრმე) ფენის მოხსნა და ცალკეულ ადგილას გროვებად შენახვა Removal of top soil (about 30 cm depth) and separately storing in appropriate place	✓				
3.9	სამშენებლო ნარჩენების და ჭარბი ნარჩენი გრუნტის დროული ვატანა/განთავსება Timely removal/disposal of construction waste and surplus waste soil	✓				
3.10	სამშენებლო ტერიტორიის ღამის საათებში განათება Provide adequate lighting of construction territory	✓				
3.11	სამშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დასაფუძვნების ორგანიზებულად განთავსება (საჭიროებიდან გამომდინარე) Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	✓				
3.12	სამშენებლო ტერიტორიაზე საწვავის და საპოხი მასალების დაღვრის შედეგების სალიკვიდაციო საშუალების (ქვიშა, ნახერხი, მეორე ზომის ავზი და სხვა) ხელმისაწვდომობა Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	✓				
3.13	საწვავის და საპოხი მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადახურულ ადგილებში Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)	✓				
3.14	სამშენებლო ტერიტორიაზე საყოფაცხოვრებო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓				
3.15	სამშენებლო ტერიტორიაზე სახიფათო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the special dedicated place with relevant indication signs (for example "Hazardous Waste")	✓				
3.16	სამშენებლო ტერიტორიაზე ან მის გარეთ ტრანსპორტისთვის პარკირების ადგილის მოწყობა და ნიშნით აღჭურვა (მაგ. P) Arrangement of proper Parking area in the adequate place inside/outside of construction territory with relevant sign (for example P)	✓				
3.17	სამშენებლო მასალების და ნარჩენების ტრანსპორტირების დროს ავტოტრანსპორტის სპეციალური საფარით (ბრეზენტით, ტენტითდასხვა) აღჭურვა Use tarpaulin cover during materials transportation		✓			
3.18	საჭიროებიდან გამომდინარე მტვრის წარმოქმნის პრევენცია Dust generation prevention activities (when needed)	✓				
3.19	მუშების და ინჟინერ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (ჩაფხუტი, ყაზაღი, ხელთათმანი, ჩექმები, დამცავი სათვალე, და სხვა) სრულად გამოყენება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓				
3.20	სიმაღლეზე მუშაობის დროს სპეციალური დამცავი აღჭურვილობის გამოყენება Use of special safety equipment during working at heights	✓				
3.21	სამშენებლო ტერიტორიის მუდმივად დალაგება და დასუფთავება Regularly cleaning of construction territory	✓				
4	**Monitoring Measurements**					
4.1	Monitoring measurement data (air, water, soil, erosion, noise, dust, vibration, etc). ჭაღის, ჰაერის, ვიბრაციის, ეროზიის, ხმაურის, მტვრის და ნიადაგის მონაცემების გაზომვების მონიტორინგი.	✓				quarterly measurements
5	**Top Soil Protection**					
5.1	Topsoil is stripped and stored according to standard procedures and used further for landscaping and reinstatement. ნიადაგის ზედაპირული ფენის დაცვა	✓				
6	**Safety Measures**					
6.1	The workers use all personal safety equipments required for individual technological processes (hard hats, gloves, respirators, glasses, etc.). მუშახელი იყენებს ცალკეული ტექნოლოგიური პროცესებისათვის აუცილებელ პირად დამცავ საშუალებებს (ჩაფხუტები, ხელთათმანები, რესპირატორები, სათვალეები და ა.შ).	✓				
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lightening, signs are installed, etc .					

	საშენებლო ობიექტზე განთავსებული ხანძარსაწინააღმდეგო და სანიტარიული დანადგარების საპარსი ნაგები. სარეზერვოლია, ეანაგები დაბინძურებულია, ხანგრძლივი დაყენებისგან გაფუჭებული და სხვ...	✓				
7	**Works Completion**					
7.1	After completion of main works, the site undergoes final cleanup, harmonization with outward landscape and landscaping. ძირითად სამუშაოთა დასრულებისას ნარჩენები ობიექტის საბოლოო დასუფთავება, ეარე ლანდშაფტთან ჰარმონიზება და გაწვანება.	✓				after completion construction activities
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 ექსპლუატაციის დასრულებისას ნარჩენები ფენა-ფენად ეყრება, კომპაქტირება, ტერასირება, და ლანდშაფტთან ჰარმონიზება				✓	
7.3	Final Post Construction Environmental Audit/monitoring is conducted and Final Environmental Audit Report is prepared //საბოლოო ეარეშის დაეგეგ მონიტორინგ/აუდიტი ჩატარებულია და საბოლოო ეარეშმდგომი აუდიტის ანგარიში მომზადებული.	✓				

ANNEX G: CORRECTIVE ACTION PLANS

ULUSAL INSAAT ve TICARET A.S.

Date: 10/06/2017

Corrective Action Plan

Project Name: *Construction of Water Supply in Kutaisi*	**Corrective Action Plan**
Project No: *P 43405-ICB-KUT-01*	
Project Location: *Kutaisi*	
Site: *Maisuradze/Baratashvili/Agmashenebeli/Tsereteli*	
Location: *Kutaisi*	
Consultant: *EPTISA*	
Issue: *Health, Safety and Environmental Issues*	
Date of Site visit: 29/30.05.2017	**Notification Date: 06.06.2017**

Corrective Action Plan

SMK has already taken action to correct the subject items

- SMK's safety manager took action and safety signs/tapes and trench side barriers around of all open trenches are installed to avoid accident of population
- SMK took action and enough and proper wooden/metal walkways/planks are installed across open trenches.
- SMK took action about piles of surplus waste soil which are removed from construction area and disposed in a proper place
- SMK took action and resident houses nearby areas are clean from construction materials to avoid disturbance of residents and businesses
- SMK took action and construction activities information signs are installed at each construction segment
- SMK has taken action about dust prevention activities (watering of territory) which will be carried out in dry/windy weather
- SMK took action and special blinking signs are provided where necessary when passing streets to avoid disturbance of car movements
- SMK will take measures about the tarpaulins to cover during materials transportation
- SMK's all workers use PPE

MUKHNARI

- Proper fuel/oil spill response items (sand, sawdust, special containers) are available at the site
- Transport is parked only at the parking area
- All construction materials are properly segregated and stored adequately
- Topsoil disposal location is well labelled
- All workers even personnel of subcontractor are equipped with PPE

Photos of Network and Mukhnari Reservoir

Maisuradze str

Maisuradze str

Tsereteli str

Tsereteli str

Baratashvili str

Baratashvili str

Baratashvili turn

Baratashvili str

Agmashenebeli str

CAP of 1 May 2017

Corrective Action Plan

Project Name: *Construction of Water Supply in Kutaisi*	**Corrective Action Plan**
Project No: *P 43405-ICB-KUT-01*	
Project Location: *Kutaisi*	
Site: *Gugunava/9 April turn/Monk Tevdore street/Gurieli street/Mukhnari Reservoir*	
Consultant: *EPTISA*	
Issue: *Health, Safety and Environmental Issues*	
Date of Site visit: 20/21.04.2017	**Notification Date: 27.04.2017**

Corrective Action Plan

SMK has already taken action to correct the subject items

- SMK's safety manager took action and safety signs/tapes and trench side barriers around of all open trenches are installed to avoid accident of population
- SMK took action and enough and proper wooden/metal walkways/planks are installed across open trenches.
- SMK took action about piles of surplus waste soil which are removed from construction area and disposed in a proper place
- SMK took action and resident houses nearby areas are clean from construction materials to avoid disturbance of residents and businesses
- SMK took action and construction activities information signs are installed at each construction segment
- SMK has taken action about dust prevention activities (watering of territory) which will be carried out in dry/windy weather
- SMK took action and special blinking signs are provided where necessary when passing streets to avoid disturbance of car movements
- SMK will take measures about the tarpaulins to cover during materials transportation
- All transmission line construction segments are cleaned/well organized on regular bases as it is possible before paving works
- SMK's all workers use PPE

MUKHNARI

- Proper fuel/oil spill response items (sand, sawdust, special containers) are available at the site
- Transport is parked only at the parking area
- All construction materials are properly segregated and stored adequately
- Topsoil disposal location is well labelled
- All workers even personnel of subcontractor are equipped with PPE
- One side of Mukhnari Reservoir site is opened for permanent usage, as the machinery (crane, pump etc) stand there. As soon as it is finished, mentioned part will be fenced.

Photos of Network and Mukhnari Reservoir

Tevdore Beri str

Tevdore Beri str

Tevdore Beri str

Gurieli str

Gurieli str

9 April str

Gugunava turn