

Environmental Monitoring Report

Semestral Report
March 2017

GEO: Urban Services Improvement Investment Program – Project 4

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: 43405-026

July-December 2016

Loan Number 3238-GEO (SF)

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 4) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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December 2016

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DREP	Division of Resettlement and Environmental Protection
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SEMP	Environnemental 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
USIIP	Urban Sector Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoENRP	Ministry of Environment and Natural Resources Protection
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sewerage

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PART I – INTRODUCTION

1.1 Construction activities and project progress during the previous 6 months

A. General information about the program/Subprojects

1. The present Bi-annual Environmental Monitoring Report covers July-December 2016 time period.
1. 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.
2. 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.
3. The Investment Program will improve the health of residents in the urban centers of Mestia, Anaklia, Kutaisi, Poti, Ureki, Zugdidi and Marneuli. The outcome of the Investment Program is improved WSS services in these urban centers.
4. Tranche 4 of the Investment Program includes: 1. Construction of Water Supply System in Zugdidi (Zug 01); 2. Construction of Sewerage System in Poti (Pot-01) and 3. Construction of Wastewater Treatment Plant in Poti (Pot-02).

The Following Projects are Financed under Tranche 4:

Construction of Water Supply System in Zugdidi (Zug 01)

5. The project comprises of the construction of 1 water supply pumping station – 1,170 m³, construction of new reservoirs (3,300 m³x3); distribution network - laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells - drilling of 10 drinking water wells.

Construction of Sewerage System in Poti (Pot-01)

6. Pot-01 project includes the construction of 112.4 km of new sewerage pipes, and construction of 28 sewage pumping stations.

Construction of Wastewater Treatment Plant in Poti (Pot-02).

7. The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 11,663 m³/day for Poti.
8. Supervision Consultant for Tranche 4 of USIIP is “SAFEGE France with Engineering Solution LLC Georgia”.

Construction activities and project progress during the previous 6 months

9. During the reporting period, project scheduled construction activities were carried out under Zug-01 project. Construction progress of Zug-01 project, during the period of July-December 2016 is presented in Table 1 below. Construction activities for Pot-01 project is under termination with approval of Pot-01. Details of termination process are presented in paragraphs (11-16) below.

Construction progress during the previous 6 months under Zug-01 project (July-December 2016)

**Table 1: Project Progress during the Previous 6 Months
Zug-01**

Zug-01	Zugdidi Water Supply System Construction
Sites	Zugdidi Water Pipeline Network; Bashi Reservoir, Ingiri Pump Station & Water well Field
Works undertaken during July-December 2016	Bashi existing reservoir demolished, basement of 3 new reservoirs excavated. Mobilization for Ingiri site completed. Pump station construction is in progress.
Zug-01	Zugdidi Transmission Pipelines
Works undertaken during July-	OD 63 PE – 3528.95m 46.13%

December 2016	OD 75 PE – 8734.78m 31.5% OD 90 PE – 5156.77m 32.5% OD 110 PE – 55025.97m 40.7% OD 125 PE – 4503.57m 57.3% OD 140 PE – 2554.72m 54.6% OD 160 PE - 447.36m 30.2% OD 180 PE – 3619.93m 32.6% OD 200 PE – 1011.77m 63.2% OD 225 PE – 1816.58m 36.04% OD 250 PE - 794.46 17.38% OD 280 PE – 462.05m 48.6% OD 315 PE – 1215.49m 49.8% OD 355 PE - 526.96m 12.6% Total: 89399m
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Zug-01	Zugdidi Reservoirs & Pump Stations
Site	Bashi Reservoir
Works undertaken during July-December 2016	Demolition of existing reservoir 98% Excavation of foundation for new reservoir (for 3 reservoir) – 100%
Site	Ingiri Pumping Station
Works undertaken during July-December 2016	Mobilization - 100%; Excavation of foundation for new Pumping station – 100% Ingiri Well Field: Mobilization – 100% Drilling Well N4 – 70m (Finished); N9 – 70m (Finished)

Termination of Pot-01 Project

10. The contract for the “Construction of Sewerage System in Poti” under POT-01 project (“Azeragrartikinti” JSC) is in the process of termination, due to the non-conformity works, which the contractor continued to exclude without taking into the consideration warnings and letters of SC/Safege and UWSCG. Termination should strictly follow procedure stipulated in the contract between employer and contractor and is approved by ADB.
11. During the ADB’s mission in November 2016, UWSCG was advised to implement safety and environmental mitigation measures in Pot-01 project sites. In particular, the Mission observed incomplete works in the streets of the town that may pose serious safety risks to the population.
12. To avoid negative consequences related to the health and safety of the Poti population and visitors it was advised to carry out mitigation measures (e.g. putting tapes or signs, or doing basic backfilling on the streets, etc.).
13. Various warnings and letters were sent to the Contractor, verbal instructions were given and non-compliance notice has been issued by Environmental Specialists of SC/Safege and USIIP requesting Contractor to improve Health, Safety and Environmental condition on sites (see Annex C). The Environmental section was not recorded in Contractor’s monthly progress reports as well.

Major Environmental Issues Identified by SC and UWSCG after the Termination of Pot-01 Project

Topsoil

14. The original topsoil was removed during the erection of the site compound. The Contractor has removed the topsoil off site without the Engineer’s agreement. As the project Pot-01 will be re-tendered, the cost of topsoil to restore a working connection will be included in the new contract amount and will be implemented by new Contractor selected on the tender basis for the implementation of Pot-01 project.

Pot Holes and Road Subsidence due to poor Reinstatement and Compaction

15. Temporary mitigations will be implemented by UWSCG. Local Service Centers of Company will fill in and maintain dangerous potholes and tape off damaged sunken manholes with high visibility tape, as at present the Contractor will not return and maintain. All associated costs for further reinstatement and compaction of sites will be included in the new contract amount and will be implemented by the new contractor.

1.2 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

1. The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for

management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.

2. United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. An Investment Program Management Office (IPMO) which is the Strategic Planning and Donors Relations Department (the former name of the Donors Relations Department was changed in July 2016) is responsible for the implementation of all Investment Program related functions. Resettlement and Environmental Protection Unit (UREP) is part of this Department. The IPMO coordinates construction of subprojects under USIIP, and ensures consistency of approach and performance.
3. In December 2016 the name of IPMO was changed and became an International Procurement and Donors Relations Department. A new Department of Environmental Protection, Resettlement and Permit (DEPRP) was established instead of UREP as well. DEPRP will include Unit of Construction Permission and will consist of five staff members. The new structural changes will enter into force from January 2017. A new structural diagram will be presented in July-December EMR of 2017.
4. 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.
5. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the supervision consultant (SC). To ensure the smooth implementation of EMPs and SEMP 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.
16. 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
17. DC is responsible for developing and incorporation of mitigation measures in design and construction.
18. The environmental specialist (ES) is hired by UWSCG under the USIIP to assist and advise the Resettlement and Environmental Protection Unit (UREP) 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 UREP 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.

19. UREP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently UREP is staffed with a Head of Division and one specialists, who is responsible for both resettlement and environmental issues.
20. 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

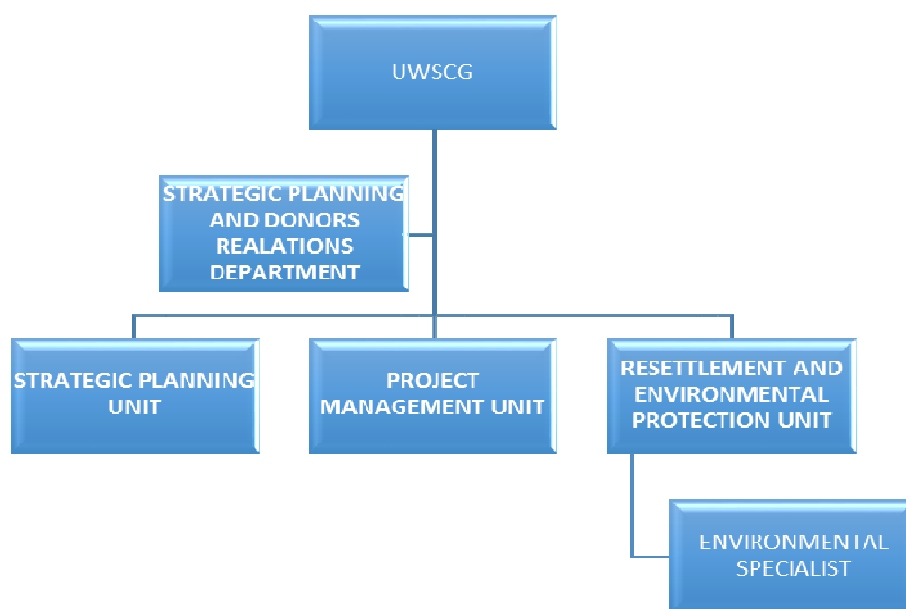
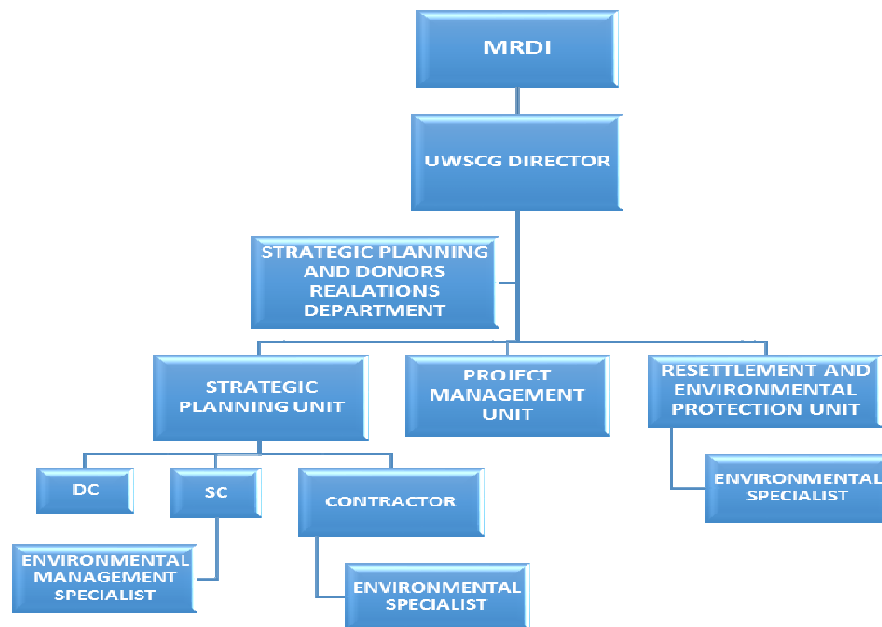


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



1.3 Relationships with Contractors, Owner, Lender, etc

21. Relationships with Contractors, Owner and Lender are considered as normal working relationships. At the working level, coordination of environmental issues has been satisfactory, the government agencies, UWSCG, consultants and contractors are in frequent communication and consultation.
22. Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for oversee progress and provide guidance on the Investment Program implementation; convene regular meetings in consultation with the SC and UWSCG; ensure compliance with Investment Program covenants.
23. Oversight of the USIIP with regards to environmental management is the responsibility of the environmental safeguards team, in particular UWSCG/UREP and the Environmental Specialist of USIIP.
24. The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.
25. SSEMPs were prepared by contractor, endorsed by SC/Eptisa and approved by UWSCG/UREP.
26. SC is responsible for environmental capacity building, monitoring of implementation of SSEMPs and for developing quarterly reports. The Contractor has a full time Environmental Specialist who carries out day to day monitoring and submits monthly progress reports.
27. ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.

- 28.** To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/UREP, Safege/ESL and Contractors. During the meetings environmental issues and implementation of the mitigation measures are discussed.
- 29.** A Grievance Redress Committee, which was established under the REG-01 project in Zugdidi, for Anaklia water supply component, will consider complaints within the framework of Zug-01 project as well. GRC for Poti-01 project has also been established during the reporting period.
- 30.** Contractor of Zug-01 project during the reporting period signed agreements with the following sub-contractor:
- Agreement between Az Inshaat-N LTD and Laboratory Research Center LTD on drinking water and sewage full bacteriological and chemical analyze.
 - Agreement between Az Inshaat-N LTD and Zugdidi Municipal Service on domestic waste removal and disposal.
 - Agreement between Az Inshaat-N LTD and Zugdidi Municipality on territory allocation for construction material (gravel and sand) temporary stockpiling.
 - Az Inshaat-N LTD - Borrow pit License for 184 500 m3 gravel extraction from Enguri riverbed.
- 31.** Contractor of Pot-01 project during the reporting period operated with the following sub-contractor:
- Agreement between the “Azeragrartikinti” JSC and the Municipality of the Poti City Hall for Disposal of the Inert Waste
 - Agreement between the “Azeragrartikinti” JSC and Municipality of the Poti City Hall for Disposal of the Municipal Waste
- 32.** Monthly site meetings have taken place with all Contractors during the reporting period, with a focus on progress and technical problems as well as environmental safeguard issues.
- 33.** Under the Zug-01 and Pot-01 projects contractors signed agreements with the Ltd “Eco-Spectri” for the monitoring measurements (dust, CO, NO2, SO2, noise) of all construction sites.
- 34.** Project organization for the awarded contracts listed above is given in the table 2 below.

Table 2: List of Contracts under T4

Contract #	Employer	Contractor	Contract Signature date	Contract Final Date
Contract No: P43405-ICB-Zug-01	UWSCG	AS Inshaat-N LLC	26-Oct-15	25-Oct-17
Contract No: P43405-ICB-Pot-01	UWSCG	“Azeragrartikinti” JSC	25-Dec-15	25-Jan-18
Contract #	Employer	Contractor	Contract Signature date	Contract Final Date
Contract No: UWSCG/USIIP/QCBS/02-2014	UWSCG	SAFEGE (France) with Engineering Solution LLC (Georgia)	2-Jul-15	8-Jun-18

PART II - ENVIRONMENTAL MONITORING

35. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of UREP under USIIP on a regular basis, during the period July-December, 2016. Also unscheduled monitoring visits were carried out and on-site verbal instructions have been given to the contractor and its environmental team 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.
36. The monitoring activities included:
- The monitoring of compliance of construction activities under Zug-01 project sites to the EMP/SSEMP requirements;
 - The monitoring of compliance of construction activities under Pot-01 project sites to the overall project EMP/SSEMP requirements.

37. Environmental Monitoring Specialist hired under the ZUG-01 subproject conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
38. Environmental Monitoring Specialist hired under the POT-01 subproject conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
39. Environmental Monitoring Specialist of SC/Safege developed quarterly monitoring reports for UWSCG/USIIP based on the monthly reports submitted by Contractor, and based on environmental site inspection.
40. ES of USIIP performed monitoring of contractor's performance with the approved EMPs and SSEMPs, environmental standards and other environmental commitments of the contractor. ES developed bi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
41. The construction activities affecting the environment during the reporting period are as follows:
 - Excavation works
 - Removal of soil
 - Removal of vegetation
 - Backfilling of trenches
42. 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. Only Zug-01 is reported in this EMR.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Zug-01		
Air Quality	Air Quality Every 3 months Mukhnari Reservoir, Networks, Transmission Main	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 3 months Mukhnari Reservoir,	Ensure that all equipment &

Parameters	Frequency & Location	Remarks
	Networks, Transmission Main	vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Incorrect surplus/waste soil management	Monthly during the site Inspection and audit	Utilize surplus/waste soil for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality
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 removal or protection.
Pot-01		
Dust generation	Monthly during the site Inspection and audit	Use tarpaulins to cover loose material that is transported to and from the

Parameters	Frequency & Location	Remarks
		<p>site by truck</p> <p>Clean wheels and undercarriage of haul trucks prior to leaving construction site</p>
Noise	Monthly during the site monitoring.	<p>Ensure that all equipment & vehicles used for construction activity are in good condition</p> <p>Limiting working hours to 8 am – 6 pm</p>
Loss of topsoil due to incorrect stripping and storage	Monthly during the site Inspection and audit	Top soil of about 15 cm depth shall be removed and stored separately in appropriate location
Impact on Flora and Fauna	Monthly during the site monitoring.	<p>Avoid tree cutting</p> <p>In unavoidable cases, plant four trees of same species for each tree that is cut for construction</p>
Cultural heritage Disturbance to cultural resources	Every time along the alignment Archaeological & Cultural Properties	<p>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.</p> <p>Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.</p>

43. 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.

C. Monitoring Measurement Data

Zugdidi Water Supply Infrastructures (Contract ZUG-01):

44. Environmental monitoring of dust, air condition, noise and vibration is performed as indicated in the relevant EMPs/SSEMPs (on the bi-annual basis).
45. The Environmental Measurements were carried out by the contractor at various locations of construction sites. The National Environmental Standard (Maximum Permissible Level) for Dust is 0,5 Mg/m³, for CO is 5,0 Mg/m³, for SO₂ – 0,5 Mg/m³., Noise level – 55dB (day time), 45dB (night time) is regulated by the Decree No. 297/N “On Approval of Environmental Quality Norms” (August 16, 2001 of the Ministry of Labor, Health and Social Affairs).
46. Noise impacts should not exceed the levels presented in Table 3, in accordance with Decree No. 297/N “On Approval of Environmental Quality Norms” (August 16, 2001 of the Ministry of Labor, Health and Social Affairs), 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	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00
Residential; institutional; educational	55	45
Industrial; commercial	70	70

47. The monitoring measurements were carried out by contractors within the framework of the Zug-01 project in various construction sites on November 2016 (See Annex 1). Location and data are included in the table below. The next monitoring measurements will be conducted in February 2017 and results will be reflected in the next July-December 2017 EMRs. According to data received in November 2016 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 measurement were carried out at day tile (15:00 – 17:00pm).

Table 5: Monitoring Measurements under ZUG-01 Project**ZUG-01**

Place of Measurement	Dust Mg/m ³		CO Mg/m ³		NO ₂ Mg/m ³		SO ₂ Mg/m ³		Noise db		Radiation mR/h		Vibro-acceleration m/s ²	
	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results
Bashi Kemp	0.5	≥0.1	5.0	0.1	0.2	≥0.01	0.5	≥0.1	72	65	30	8	4.0	0.1
Bashi Rezervuar		≥0.1		0.1		≥0.01		≥0.1		62		8		0.1
Gamsakhurdia street		≥0.1		0.7		0.03		0.2		72		12		0.3
Tavisulleba street		≥0.1		0.6		0.05		0.2		70		11		0.2

PART III - ENVIRONMENTAL MANAGEMENT**3.1 The Environmental Management System, Site-Specific Environmental Management Plan (SSEMP) and work plans****SSEMPs prepared under Zug-01 and Pot-01 projects (July-December 2016)**

48. No SSEMPs have been prepared during the reporting period under the Zug-01 and Pot-01 projects. All SSEMPs under Zug-01 (Bashi Reservoir, Ingiri Water Well Field and Pumping Station) and Pot-01 (camp site) projects have been prepared by Contractor, endorsed by SC/Safege, approved by UWSCG and reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 - Ms. Ketil Dgebuadze during the previous reporting period (July-December 2016). Status of Environmental Management Plans are provided in the Table 6 below.

Table 6: Status of Environmental Management Plans under Zug-01 project

Management Plan	Status	Date of Submission
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Company Waste Management Plan (according to Geo legislation) to be agreed with MoENRP	Submitted	Will be submitted by the end of December 2016
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3.2 Site Inspections and Audit

49. Regular (Twice a month) inspection and monitoring of Zugdidi and Poti construction sites have been conducted by the Environmental Specialist of Supervision Consultant/Safege under the Zug-01 and Pot-01 projects. Joint inspection and audit has been carried out by SC and UWSCG on the regular basis as well. The schedule of joint 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 (Zug-01, Pot-01)

#	Zug-01 and Pot-01 Site visits	Organization	Date
1	Site audit	Environmental specialist of USIIP and SC/Safege environmental specialists	12-13.07.2016
2	Site audit	Environmental specialist of USIIP and SC/Safege environmental specialists	28-30.08. 2016
3	Site audit	Environmental specialist of USIIP and Eptisa environmental specialists	18-20.11. 2016

50. Several non-compliances have been observed during the site visits under Zug-01 project and verbal instructions have been given to contractor's relevant staff.
51. The major concerns were related to the open trenches and vehicular and pedestrian access hamper. Unsatisfied housekeeping observed at the camp and construction sites, not properly segregated and stored construction materials to avoid disturbance of residents and businesses.
52. 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 Safege and UWSCG monitored the improvements during the next monitoring visits.
53. 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.

3.3 Non-Compliance Notices

Zug-01, Pot-01 projects

54. All corrective actions requested after the Monitoring of sites were mostly improved by contractor under Zug-01 project. However, there were some environmental issues that were not addressed adequately and are presented in Tables #8 and #9. Finally Contractor improved the situation on sites.
55. Non-compliance Notice has been issued by SC/Safege to the Contractor under Pot-01 project and requested to immediately improve the situation. Unfortunately Contractor ignored all warning letters and non-compliance notice that together with other non-conformity works resulted in termination of project.
56. It should be mentioned that all permits, licenses and agreements are on place under Zug-01 project and available at camp site.

3.3 Corrective Action Plans under Zug-01

57. For the purpose of resolving the observed issues, the corrective action plans have been developed by the contractor. The regular Environmental Meetings were also carried out with the participation of UWSCG/IPMO/UREP, Safege, contractors. During the meetings environmental issues and implementation of the mitigation measures were discussed. Agreements were reached that contractors should respond to the findings of the compliance monitoring carried out by SC and UWSCG.

Table 8: Actions taken for Implementation of Mitigation Measures under Zug-01 Project by the end of December 2016

URE-01

Construction Site	Environmental Issues	Action taken
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Zug-01	There is a lack of hazardous waste containers with labels	Completed
	The drums full of oil have to be stored at special designated area with concrete basement and roofing,	Completed
	Small oil leakages were also observed and d) used tires should be removed and utilized by the licensed company	Completed
Pot-01	Incomplete works in the streets of the town that may pose serious safety risks to the population.	USCG will temporarily (until selection of new consultant) install high visibility tapes and signs, will do basic backfilling on the streets, etc.
	Loss of topsoil due to incorrect stripping and storage	The cost of topsoil for restoration of project sites will be included in the new contract amount under the Pot-01 project



59. These issues were captured in project photos and are shown in Annex B.





60. Annual Environmental Compliance Safeguard Review Mission was carried out by ADB on 29-30 September 2016 to review environmental safeguards compliance of USIIP projects.

3.5 Actions taken to reflect the findings of ADB mission carried out on 29-30 September 2016

Table 9: Status of Findings of ADB Mission Carried out on 29-30 September 2016

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 29-30 September 2016			

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Construction of Water Supply System in Zugdidi – USIIP, T 4			
Zug-01			
	All documents requested by the NES (IEE, EMP, SSEMP, monitoring reports, checklists, licenses, permits, complaints log book, as well as records of trainings) were kept on camp site except monitoring checklists of CC.	October 2016	Completed
	<p>Area of the camp is in a good condition, is fenced and kept clear. But waste management need to be improved within the vehicle maintenance area, in particular: a) there is a lack of hazardous waste containers with labels, b) the drums full of oil have to be stored at special designated area with concrete basement and roofing, c) small oil leakages were also observed and d) used tires should be removed and utilized by the licensed company (see photos below)</p> 	October 2016	<p>Completed, Contractor corrected the situation and sent improved site photos to UWSCG (see photos below).</p> 

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
	 		 
	Company Waste Management Plan has to be submitted to MoENRP for approval according to new Waste Management Code of Georgia.	December 2016	Completed, Waste management Plan is Submitted to the MoENRP

Actions taken regarding the action plan of the EMR July-December 2016:

- 61.** UWSCG, SC carried out public awareness activities for Zugdidi and Poti population including information about the GRM and GRC. Partially completed. Public awareness plan will be developed by SC/Safege and Contractor, SC and UWSCG will implement public awareness activities in February-March 2017.
- 62.** Monitoring of environmental quality under Zug-01 project (Bashi Reservoir, Ingiri well fields and pumping stations and network) have been conducted in September 2016. Completed, monitoring measurement data are provided in Annex A.

63. Contractor to Prepare, SC/Safege to endorse and UWSCG to approve SSEMP for Poti and pumping stations. Not completed. N/A due to the termination of the Pot-01 project. SSEMP for Camp will be updated and a new SSEMP for Pumping Stations will be developed by the new Contractor selected under Pot-01 project on the basis of the tender (May 2017).

3.4 Consultations and Complaints

Public Awareness Activities:

64. Consultation meeting with affected people living in close proximity to the construction site in Zugdidi/Bashi reservoir (Zug-01) and Poti Pumping Stations (Pot-01) were undertaken during the reporting period. The meeting were attended by representatives of UREP/UWSCG, USIIP Environmental Specialist, representatives of SC/Safege, as well as representatives of the local Service Centers of Zugdidi and Poti.
65. The purpose of above mentioned consultation were: to ensure the local residents informed participation in project implementation and monitoring; to inform them of the possible impacts of the project on their health and the environment, and efforts to be undertaken by the contractor to minimize the impact and to mitigate impact when avoidance is not possible; to introduce the project benefits to them as a result of project implementation.
66. During the meeting local population showed a support for the Zugdidi water supply subproject. They stressed the importance and the need to improve the water supply system in Zugdidi.

Trainings

67. On site environmental safeguard training were organized for environmental team of Pot-01 and Zug-01 projects on a regular bases during the site visits. Environmental specialists of the above mentioned contractors were introduced with all necessary safeguard requirements of ADB/SPS 2009.
68. The main issues of discussion were the obligations of contractor in terms of environmental safeguards and issues that are to be managed during construction process.
69. The issues of discussion were as follows:
- Site-specific Environmental Management Plans and their implementation
 - Site management

Grievance redresses mechanism (GRM)

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

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

71. During the reporting period only few complaints have been received by the contractor. No written complaints were registered at the service center of Zugdidi and Poti. These complains were mainly related to the dust generated during the construction process on the narrow streets of Zugdidi and Poti and rehabilitation of roads/problems concerning damaged infrastructure. All complains were resolved at the first level by involving representatives of the local service center of UWSCG, Contractor and SC/Safege under Zug-01 project. Temporary mitigations will be implemented by UWSCG to improve the situation on Poti sites. These mitigation will include putting of high visibility tapes and/or signs on the damaged streets and open tranches left by Contractor or doing basic backfilling on the streets, etc.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

72. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMPs and SSEMPs under Zug-01project.

4.2 Action Plan for the next period

73. Contractor, SC, UWSCG/UREP, UWSCG/PR department to continue Public Awareness activities within the Zug-01 (February-March 2017).
74. Conduct monitoring of environmental quality under Zug-01 project (Bashi Reservoir, Ingiri well fields and pumping stations and network) in February 2016. The specific plan for measurement is as follows:

Table 10: Conduct Monitoring of Environmental Quality under Zug-01 Projects at Each Site

Parameters	Quarterly measurement
Dust	February 2017
Vibration	February 2017
Carbon monoxide	February 2017
Nitrogen dioxide	February 2017
Noise	February 2017

75. Conduct monitoring of temporary mitigation measures implemented by UWSCG for safety of local population of Poti.

ANNEX A: MONITORING MEASUREMENT DATA

Zug-01 monitoring measurements

Annex 1 Results of quality measurements

Place of Measurement	Dust Mg/m ³		CO Mg/m ³		NO ₂ Mg/m ³		SO ₂ Mg/m ³		Noise db		Radiation mR/h		Vibro-acceleration m/s ²	
	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results	Standard	Results
Bashi Kemp	0.5	≥0.1	5.0	0.1	0.2	≥0.01	0.5	≥0.1	72	65	30	8	4.0	0.1
Bashi Rezervuar		≥0.1		0.1		≥0.01		≥0.1		62		8		0.1
Gamsakburdia street		≥0.1		0.7		0.03		0.2		72		12		0.3
Tavisulleba street		≥0.1		0.6		0.05		0.2		70		11		0.2
<div> <div> Irakli Kaviladze Principal Auditor EMS Systems Ltd "Eco-Spectri" </div> <div>  </div> <div>  </div> </div>														

ANNEX B: PROJECT PHOTOS

Zug-01





Zug-01: Bashi Reservoir



Zug-01: Zugdidi Network

Photos of Pot-01 project:





Pot-01: Poti Streets after termination of project

ANNEX C: NON-COMPLIANCE NOTICES

NON-COMPLIANCE NOTICE (21.07.2016) – POT-01

Non-Compliance Notice

Project: USIIP	Non-compliance Notice
Contract No: Pot-01	
Contractor: Azeragartikinti OJSC	
Reference:	
Poti –Camp site; Construction Site.	POTI

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

GENERAL COMMENT FOR ALL SITES:

Hazardous waste storage area (shelter) should be allocated and protected. Hazardous waste containers should be placed on the camp territory at the appropriate places. Sufficient fuel and lubricant storage shelter should be constructed (fuel, lubricants, paint solvents and other analogical substances should be stored only there) and protected. Fuel storage tanks should be bounded with oil containment structure - 110% of the tank volume and roofed-over. Sufficient fire extinguisher, drip tray and spill kit should be on place. Shoring must be used when excavation is deeper than 1.2m. Housekeeping should be improved ASAP. Electrical safety norms should be addressed (switch boxes used - no open wires and contacts). Oxygen cylinders must be stored and used addressing relevant HSE standards.

NON-COMPLIANCE IN POTI

POTI CAMP SITE

- Camp – Poti main office; Oil drums without containment trays outside of the fuel storage area, uncovered. Contaminated ground surface.



- Fuel storage tanks should be surrounded with oil containment structure- 110% of the tank volume. Sufficient fire extinguisher, drip tray and spill kit should be on place.



- Gas cylinder, Oxygen cylinder, Industrial oil drum. Prohibited to keep oxygen cylinders near oil containing vessels and without special cage. High risk of explosion.



- Very bad housekeeping. Poti camp yard; Manhole assemblies dumped everywhere mixed with different type waste and tools.



POTI CONSTRUCTION SITE

- Deep trenches without shoring, taking into consideration excavation edge angle and geological aspects, there is extremely high risk of cave-in.



All these conditions have to be remedied within seven days by the prime Contractor (Azeragartikinti OJSC).	
Date of site visits: 21.07.2016	
Shalva Bosikashvili - Environmental specialist – SAFEHGE/ESL	
Ketevan Chomakhidze - Environmental specialist "UWSCG"	

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT

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

Reference	Requirement	Action to date	Action required/comment
Zug-01			
	There is a lack of hazardous waste containers with labels	Completed	Contractor is requested to keep the standards.
	The drums full of oil have to be stored at special designated area with concrete basement and roofing,	Completed	Corrective Action Plan is developed by Contractor to improve the situation
	Small oil leakages were also observed and d) used tires should be removed and utilized by the licensed company	Completed	
Pot-01			
	Topsoil should be stored and protected adequately and watering regularly	NOT Completed	Temporary mitigation measures will be implanted by the UWSCG to protect local population in Poti, in particular, high visibility tapes and signs will be installed in open tranches and temporary backfilling will be implemented on streets.
	Install safety signs, tapes and trench side barriers around all open tranches and damaged streets	NOT Completed	

ANNEX E:

Grievance Redress Mechanism

The GRM allows affected people to appeal any disagreeable decision, practice or activity arising from project implementation.

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.

During the first stage, complaints are discussed within two weeks of being received by the local service centre of UWSCG (e.g. Zugdidi and Poti offices), 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.

The service centre operators, who are trained¹ 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 system² 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.

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.

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

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

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

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

The GRC should make a decision within two weeks after the registration of the grievance. The GRC is staffed as follows: (i) Representative of self-government – the head of committee; (ii) 99. Director/ Manager of UWSCG service centre; (iii) Investments Project Management Division representative of the company; (iv) Representative of local authoritative NGO (according to the claim reference); (v) Stakeholders' female representative; (vi) Stakeholders' informal representative; and (vii) Heads of local municipalities.

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.

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