

SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-027

Reporting Period: January-June 2018

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 5)

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

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

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ABBREVIATIONS

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

1. INTRODUCTION

1.1 Preamble

1. This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for the Urban Services Improvement Investment Program, Tranche 5.
2. This report is the 2nd Environmental Monitoring Review (EMR) of Tranche 5 under USIIP.

1.2 Headline Information

Not yet applicable.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

3. 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.
4. 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.
5. Tranche 5 of the Investment Program includes:
 - Construction of Sewage System in Zugdidi (ZUG-02);
 - Construction of Wastewater Treatment Plants in Zugdidi (A) and Construction of Waste Water treatment Plant in Mestia (B) (REG-03);

The following projects are financed under Tranche 5:

6. **Construction of Sewage System in Zugdidi (ZUG-02).** The Zugdidi wastewater project envisages the rehabilitation and extension of the sewer network with gravity sewers and pressure lines and the construction of wastewater pumping stations. The project measures for the sewer network comprise the laying of 160 km new gravity pipes (DN 100 to DN 800) and 9.7 km new pressure pipes (OD 110 and OD 630). There will be 24 new wastewater pumping stations. The new network will convey the wastewater to a new wastewater treatment plant, which will be constructed under Reg-03 – Zugdidi (A) WWTP project.
7. **Construction of Wastewater Treatment Plant in Zugdidi (REG-03a).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 22,000 m³/day.

- 8. Construction of Wastewater Treatment Plant in Mestia (REG-03b).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 3,200 m³/day.

2.2 Project Contracts and Management

- 9.** 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.
- 10.** Ministry of Environmental Protection and Agriculture of Georgia (MEPA). MEPA has the overall responsibility for protection of environment in Georgia. The Department of Permits of MEPA is responsible for reviewing EIAs and for issuance of the Environmental Permits. MEPA is the main state body pursuing state policy in the sphere of environment. Their functions for regulating economic or development activities with regard to environmental protection include:
- Issuing permits for project development (Environmental Decision)
 - Setting emission limits and issuing surface water intake and discharge consents
 - Responding to incidents and complaint
- 11.** 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. In June 2018, the Director and Deputy Director of UWSCG were changed. Ms. Ekaterina Galdava was appointed as the new director, Ms. Maia Gikoshvili became the new Deputy Director. Investment Program Management Office (IPMO) under UWSCG is an International Procurement and Donors Relations Department. Department of Environmental Protection, Resettlement and Construction Permit (DEPRP) under USIIP replaced the existing Unit of Resettlement and Environmental Protection and consist of six staff members, including Head of Department and Head of Construction Permit Unit.
- 12.** 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.
- 13.** 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 ¹SEMPs, Site Specific EMPs and Topic Specific EMPs of subprojects, an Environmental Management Specialist (EMS) is employed by the SC/Eptisa. SC/EMS conducts routine observations and surveys of project sites, issues non-compliance notes, prepares quarterly environmental reports and submits these to UWSCG.
- 14.** The Contractor has the following obligations:
- to prepare Site Environment Management Plans SEMPs with further Site Specific EMPs Topic Specific EMPs;
 - to employ Environmental Consultant responsible for developing and implementing the construction phase SEMPs and for providing the corresponding information to UWSCG and SC;
 - to develop Solid Waste Disposal Plan and agreed the MEPA and Local Government

¹According to new Monitoring Manual of ADB for Environmental Safeguards Implementation, since June 2018 instead of Site Specific Environmental Management Plans (SSEMPs) a "Site Environment Management Plan" (SEMP) with further Site Specific EMPs and Topic Specific EMPs must be developed by the Contractor.

15. DC is responsible for developing and incorporation of mitigation measures in design and construction.
16. 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 SEMP's and in training and capacity-building activities. The ES prepares bi-annual and annual environmental monitoring reports and submits to ADB.
17. DEPRP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPRP is staffed with a Head of Department. Head of Construction Permission Unit and 4 specialists, those are responsible for resettlement, environmental protection and construction permission issues.
18. 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

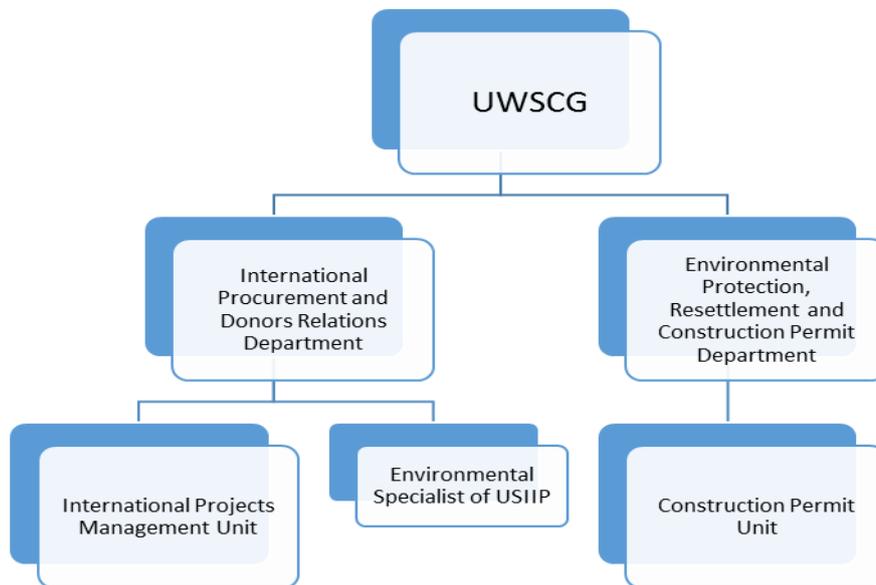
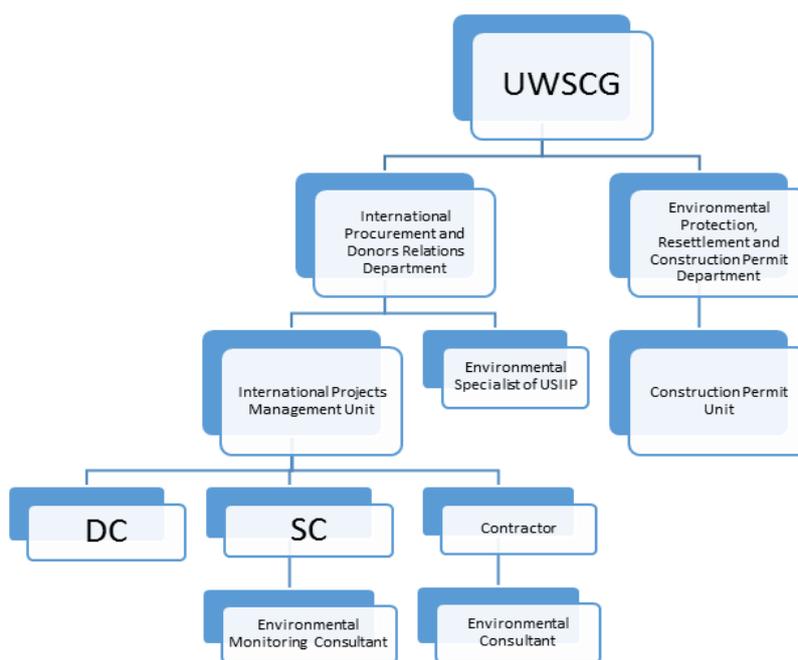


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



19. Main organizations involved in the project and related to environmental safeguard are presented in the table below:

Table 1: List of contracts under T5 – Zug-02 and Supervision Consultant for T5

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date	Contact Details of Environmental Staff
Contract No: P43405-ICB-Zug-02	Contractor: ZUG-02	UWSCG	Ludwig Pfeiffer Hoch- und Tiefbau GmbH & Co.KG	1-Feb-17	1-Feb-2010	<p>Environmental Specialist of CC: <i>Mr. Nikoloz Neparidze</i> Tel: +995 599 346821 E-mail: niko@telenet.ge</p> <p>Environmental Specialist of SC: <i>Ms. Tinatin Zhizhiashvili</i> Tel: +995 577 380113 E-mail: Tikozhizhiashvili@yahoo.com</p> <p>Environmental Specialist of USIIP/UWSCG <i>Ms. Ketevan Chomakhidze</i> Tel: +995 577 380309</p>

Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date	Contact Details of Environmental Staff
						<i>E-mail:</i> Chomakhidzek@yahoo.com
Contract #	SC for T5	Employer	Consultant	Contract Sign. date	Contract Final Date	
Contract No: UWSCG/USIIP/QC BS/03-2016	Supervision Consultant: Posch&Partners Consulting Engineers	UWSCG	JV of Posch&Partners Consulting Engineers (Austria), Hydro Ingenieure Umwelttechnik GmbH (Austria) and Wardrop&Alexander (Georgia) as sub-consultant	1-Feb-17	1-June-2020	Environmental Specialist of SC: Ms. Tinatin Zhizhiashvili Tel: +995 577 380113 <i>E-mail:</i> Tikozhizhiashvili@yahoo.com
Contract #	Sub-project Title	Employer	Contractor	Contract Signature date	Contract Final Date	
Contract No: UWSCG-USIIP- ICB-REG-03a	REG-03a	UWSCG	JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeiffer Hoch – and Tiefbau GmbH7Co. KG (Germany)" and "EMIT Group – Ercole Marelli Impianti Tecnologici S.r.l. (Italy)	11-Dec-17	1-Jan-20	Environmental Specialist of CC: <i>Mr. Nikoloz Meparidze</i> Tel: +995 599 346821 <i>E-mail:</i> niko@telenet.ge Environmental Specialist of SC: Ms. Tinatin Zhizhiashvili Tel: +995 577 380113 <i>E-mail:</i> Tikozhizhiashvili@yahoo.com

2.3 Project Activities During Current Reporting Period

20. During the reported period under Zug-02 project, Contractor has intensified all activities to improve the progress of the works on site and exchanged several sub-contractors with more experienced staff. The Engineer has processed frequent instructions to the Contractor for the planning and outstanding documents preparation which shall ensure steady improvement of the works progress.

21. Several management meetings between the Employer, Consultant and Contractor on project implementation issues have been conducted. Up to the end of the reported period the Contractor has not finalized his revised Work Program which after prolonged discussions was agreed to split the works in New Pipelines Installation and Existing Collectors Rehabilitation.
22. The contractor's overall progress to date is recorded with delays of the actual works which started to be reduced in the last two months. The site inspection and surveying works are also gaining momentum to ensure the expected progress with actual works.
23. The actual works on site have progressed with the required 5.2 km completed pipe installations per month.
24. Separately progress of works are recorded below:

Mobilization:

- Site offices completed with facilities (furniture, internet, phone connection, and water and toilet facilities) are established on site, both for Contractor and for Engineer/Employer.
- Concrete Batching Plant is delayed in final start-up.
- Surveying team is fully active on site (work on setting out, design survey checks and reports)
- Health and safety equipment mobilization is in completion stage but with more open sites, there will be again missing equipment for all.
- Proposal and procurement of materials is ongoing.
 - PP manholes are in delivery stage
 - PE fittings are approved on manufacturer with no further actions by the Contractor

Construction of a new sewerage system

- Submitting of detailed method statements and QcQa documents is ongoing.
- Process for RFIs and site positions is established and functional
- Works in the Western zone are progressing and two lines in the Hospital zone have started by the end of the reported period
- Machinery for construction is on site (as presented in table)

25. The contractor has proposed additional sub-contractors which indicate better experience with similar works and improved progress. The Engineer has given positive consent for the Employer's approval.

26. According to the quarterly report of SC, the Contractor had the following main staff on site:

Table 2: List of staff under Zug-02 project

PERSONNEL , ZUG-02, End of June 2018	
Manager	2
Engineer	9
Office Assistant	3
Interpreter	2
Surveyor	17
Assistant Surveyor	2
GIS Specialist	1

PERSONNEL , ZUG-02, End of June 2018	
Site Foreman	19
Worker	110
Operator	40
Driver	32
Batching Plant Operators	8
CCTV Operators	4
Cleaning Truck Operators	3
Cleaning Staff	1
Security Guards	6
Warehouse Clerk	1
Health and Safety Supervisor	1
Environmental Specialist	1
Quality Testing Specialist	6

27. The full team was on site, including the Contractor's Representative/Project Manager who was transferred from the Reg-02 project (Anaklia WWTP and Mestia WTP, USIIP/T1 and T2) to the Zug-02 project.

28. The actual works on site have progressed with the required 5.2 km completed pipe installations per month.

29. Almost 173km pipes out of 251km have been already installed in Zugdidi city. More detailed information is provided in the Table 3 below.

Table 3: List of staff under Zug-02 project

Site	Cleaning and reconstruction of existing collectors
Zug-02	
Works undertaken during January-June 2018	5 km
Site	New pipelines installation
Works undertaken during January-June 2018	15km

Photo 1: Zug-2, Sewerage Pipes



30. **No construction activities were carried out under REG-03a Contract.** REG-03a Contractor has completed the required mobilization works and established fully functional site with some three months delay. Much more concerning is the cumulated delay with the preparation of design documentation which is necessary for starting of the actual construction works.

Photo 2: Site Mobilization Reg-03/a



2.4 Description of Any Changes to Project Design

N/A

2.5 Description of Any Changes to Agreed Construction methods

N/A

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

31. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, during the period January-June 2018. 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.
32. The monitoring activities included:
 - The monitoring of compliance of construction activities under Zug-02 project sites to the IEE/EMP requirements;
 - The monitoring of mobilization activities under Reg-03/a project sites to the overall project EMP/SSEMP requirements.
33. Environmental Monitoring Specialist hired under the ZUG-02 project Mr.Nikoloz Meparidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Posch.
34. Environmental Monitoring Specialist, Ms.Tinatin Zhizhiashvili was hired by SC under T5 of USIIP, ZUG-03a in the end of Q2 of 2018.
35. SC/Posch developed quarterly monitoring reports for UWSCG/USIIP based on the monthly reports submitted by Contractor, and based on environmental site inspection.
36. 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 Semi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
37. The construction activities affecting the environment during the reporting period are as follows:
 - Excavation works
 - Removal of Top Soil
 - Removal of Surplus Soil
 - Backfilling of Trenches
 - Reinstatement Activities
38. 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 4 below. Only Zug-02 project is reported in this EMR.

Table 4: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Zug-02		
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

Parameters	Frequency & Location	Remarks
Noise	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
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
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.

39. 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.

3.2 Site Audit

40. Regular inspection and monitoring of Zug-02 construction sites have been conducted by the Environmental Specialist of UWSCG. Joint inspection and audit has been carried out by the newly appointed environmental specialist of SC and UWSCG on the regular basis as well.

41. Site inspection monitoring and audit during the reporting period have been carried out on: 16,17 January 2018, 27-30 January 2018; 20,21 February 2018; 21-23 March, 2018; 24 April, 25 May 2018 and 29-30 June 2018. The schedule of conducted monitoring and audit during the reporting period is presented in the Table 7 below.

Table 5: The Schedule of Conducted Audits and Monitoring during the Reporting Period

#	Zug-02 Site visits	Organization	Date
1	Day-to-Day Site	Environmental Specialists of Contractor Mr. Nikoloz Neparidze under Zug-02 project	1 January – 30 June 2018

#	Zug-02 Site visits	Organization	Date
	Inspection		
	Site Monitoring and Inspection	Environmental specialists of USIIP Ms.Ketevan Chomakhidze	16,17 January 2018
2	Site Monitoring and Audit	Environmental specialist of USIIP, environmental specialists of CC, International-Regional Environmental Safeguards Consultant Ms. Keti Dgebuadze and Mr. Duncan Lang, Environmental Specialist, ADB	27-70 January 2018
3	Site Monitoring and Inspection	Environmental specialists of CC	20,21 February 2018
	Site Monitoring and Inspection	Environmental specialists of CC	21-23 March 2018
4	Site Monitoring and Inspection	Environmental specialist of USIIP, environmental specialists of Posch Ms.Tinatin Zhizhiashvili	24 April 2018
5	Site Monitoring	Environmental specialist of Posch	25 May 2018
8	Site Monitoring	Environmental specialist of USIIP	29-30 June 2018

3.3 Issues Tracking (Based on Non-Conformance Notices)

42. Several non-compliances have been observed during the site visits under Zug-02 project. 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 Posch and UWSCG monitored the improvements during the next monitoring visits. Unimproved environmental issues under Zug-02 project was qualified as non-compliances and notices were issued by SC and UWSCG. Non-conformances issued by UWSCG on 23 March 2018 is presented in **ANNEX C** of this EMR.

43. A summary of the identified environmental issues during the site monitoring by ESs of SC and USIIP and actions required are presented in table below.

Table 6: Summary of the identified environmental issues and actions required

Reference	Requirement	Action to date	Action required/comment
Zug-02			
Camp Site	All workers should be equipped with PPE during the construction and safety rules has to be followed	Completed	Contractor is required to keep the standards.
	Hazardous waste containers should be placed with labels on secondary drip tray High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	
	A flagman should be hired by	Completed	

Reference	Requirement	Action to date	Action required/comment
Zug-02			
	contractor for the driver of caterpillar during the tranche excavation activities to avoid accidents related to transmission lines.		
	Household Waste should be placed at the proper container, at special designated area, labeled and discharged timely	Completed	

44. An Annual Environmental Compliance Safeguard Review Mission was carried out on 27-30 January 2018 by Mr. Duncan Lang, Environmental Specialist, ADB and RETA Regional Environmental Consultant of ADB under RETA 8663 - Ms. Keti Dgebuadze. The mission was attended also by the Environmental Specialists of CC, SC and UWSCG. Status of Findings carried out by contractor on 27-30 January 2018 is presented in the Table 6 below.

Table 7: Status of Findings of ADB Mission Carried Out on 27-30 January 2018

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 27-30 January 2018			
Zug-02 Construction of Waste Water System in Zugdidi, Zug-02 project			
	ADB requested that the IPMO and the supervision consultants for the USIIP program employ dedicated Health and Safety personnel. These personnel must be additional to existing staff (particularly at IPMO level) to ensure that sufficient capacity is present to cover H&S on this large portfolio of projects.	Q1,2 2018	Completed.
	Metal protective shields should be installed and temporary planks placed on open tranches for pedestrians.	Q1 2018	Completed
	It was revealed that not all workers use PPE during the construction activities and safety rules are not always followed.	Q1 2018	Completed
	ADB Mission asked CC to hire flagman for the driver of caterpillar during the tranche excavation activities to avoid accidents related to transmission lines.	Q1 2018	Completed

3.4 Trends

Not yet applicable

3.5 Unanticipated Environmental Impacts or Risks

Not yet applicable.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

45. Monitoring measurements under Zug-02 project was conducted by the National Environmental Agency under the MEPA in the nearest sensitive receptors in June 2018 (See Table 8 and Annex A). Location and data are included in the table below. The next monitoring measurements will be conducted in September 2018 and results will be reflected in the next July-December EMR 2018.

46. According to data received in June 2018 noise level does not exceed the standards required by National Regulations and World Health Organization (IFC/WHO),1999, and therefore no additional measures are required. IFC/WHO standards for Noise and Air pollution are presented in Table 9 below. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:30pm to 15:00pm and no complaints were received from the local population about the noise during the reporting period.

Table 8: Monitoring Measurements under Zug-02 Project

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	Noise db
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	Zugdidi X 0734032 Y 4708177		0.013	0.89	0.004	<0.1	52.4

47. Noise standards defined by IFC/WHO 1999, are presented in the Table 9a below.

Table 9a: Noise Level Guidelines

Noise	dB		dB	
	National Regulations		WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

48. Air pollution standards by IFC/WHO 1999, are presented in the Table 9b below

Table 9b: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit) mg/m ³)
1	2
Inorganic dust	(*IFC does not have a standard for "inorganic dust". Instead IFC applies standards for PM2.5 and PM10). PM10 – 0,02/1 Year 0,05/24 Hour PM2,5-0,01/1 Year 0,025/24 Hour
Carbonic monoxide	n/a
Nitrogen dioxide (NO ₂)	0,2/ 1 Hour 0,04/1 Year
Aldehyde	n/a

49. No monitoring measurements were carried out under Reg-03/a – Zugdidi WWTP project during the reporting period. Contractor is required to carry out baseline measurements before starting the construction works. Based on above mentioned the environmental measurements will be carried out in July-August 2018 and results will be presented in EMR July-December 2018.

4.2 Trends

Not yet applicable.

4.3 Summary of Monitoring outcomes

Note yet applicable

4.4 Material resources Utilization

4.4.1 Current Period

Not yet applicable

4.4.2 Cumulative Resources Utilization

Not yet applicable

4.5 Waste Management

4.5.1 Current Period

50. This information currently is not yet available. Contractor is requested to provide the following information under Zug-02 project which will be presented in the next EMR July-December 2018.

- Description and classification of waste produced during the construction (e.g. hazardous – non-hazardous):
- Waste Source – what activity generated the waste and where;
- Quantity of waste generated;

- Treatment/disposal route – information on quantities of waste reused, recycled and sent to landfill or incineration; and
- Final disposal sites for waste.

51. In addition to above mentioned, contractor is requested to provide information about the site cleaning under Reg-03a project as well, as the site was used as illegal landfill by local population.

4.5.2 Cumulative Waste Generation

Not yet applicable.

4.6 Health and Safety

4.6.1 Community Health and Safety

52. During the ADB's Annual Environmental Compliance Safeguard Review Mission in January 2018, H&S Near Misses incidents were observed.

53. ADB Mission asked CC to hire flagman for the driver of caterpillar during the tranche excavation activities to avoid accidents related to the damage of power line. The incident was resolved and the contractor hired a flagman as it was requested.

4.6.2 Worker Safety and Health

54. Contractor's Environmental Specialist Mr. Nikolz Neparidze, who will be responsible for Health and Safety issues under Zug-02 project as well.

4.7 Training

55. On site environmental safeguard training were organized for environmental teams of Zug-02 and Reg-03/a project on a regular bases during the site visits. Environmental specialists of contractors were introduced with all necessary safeguard requirements of ADB/SPS 2009.

56. 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.

57. The issues of discussion were as follows:

- Site-specific Environmental Management Plans and their implementation
- Site management

58. Grievance Redress Mechanism (GRM) Focal Points were appointed by contractor at the sites under Zug-02 and Reg-03/a projects during the January-June 2018. Implementation of GRM System under USIIP is presented in **ANNEX D** of this EMR.

5. FUNCTIONING OF THE SEMP

5.1 SEMP Review

59. SSEMP for Zugdidi WWTP under Zug-03/a project was prepared by Contractor, endorsed by SC and approved by UWSCG in 13 March 2018. SSEMP was reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 - Ms. Ketu Dgebuadze.

60. No SSEMPs have been prepared during the reporting period under Zug-02 project.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

Not yet applicable.

6.2 Opportunities for Improvement

Not yet applicable.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

61. As presented in this report, Tranche-5 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.

62. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SSEMP's requirements for Zug-02 and Reg-03/a projects.

7.2 Recommendations

55. The following activities are recommended for the next reporting period:

- Contractor, SC, UWSCG/DEPRP, UWSCG/PR department to conduct Public Awareness activities within the Zug-02 and Reg-03/a projects (July-December 2018).
- Conduct measurement of environmental quality under Zug-02 project sites in September 2018.
- Conduct measurement of environmental quality under REG-03a project sites in July 2018.
- Carry out noise measurement at the nearest sensitive receptors near the Hospital under Reg-02/a project in September 2018.

The specific plan for measurement is as follows:

Table 10a: Conduct Monitoring of Environmental Quality under Zug-02 project

Parameters	Quarterly measurement
Dust	September 2018
Vibration	September 2018
Carbon monoxide	September 2018
Nitrogen dioxide	September 2018
Noise	September 2018

Table 10b: Conduct Monitoring of Environmental Quality under REG-03a Projects at Each Site

Parameters	Quarterly measurement
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Dust	July 2018
Vibration	July 2018
Carbon monoxide	July 2018
Nitrogen dioxide	July 2018
Noise	July 2018



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30 03 2018წ.

შპს "ლუდვიგ პვაიფერ ჰობ უნდ ტიფბაუ და
კო.კგ-ის წარმომადგენლობა საქართველოში"-ს
დირექტორს ქ-ნ ჰელენ სპრინგერს

ქალბატონო ჰელენ,

საქართველოს გარემოს დაცვისა და სოფლის მეურნეობის სამინისტროს სსიპ
„გარემოს ეროვნულ სააგენტო“-სა და შპს „ლუდვიგ პვაიფერ ჰობ უნდ ტიფბაუ და
კო.კგ-ის წარმომადგენლობა საქართველოში“-ს შორის 2018 წლის 05 მარტს გაფორმებული ფასიანი
მომსახურების შესახებ ფმ-3/133 ხელშეკრულების თანახმად, გაწვდილი ქ. ზუგდიდსა და დაბა
ურეკში, თქვენს მიერ მითითებულ ატმოსფერული ჰაერის ორ წერტილში - ხმაურის, ნახშირის
დიოქსიდის, აზოტის დიოქსიდის, მტვერისა და გოგირდის დიოქსიდის შემცველობის
გაზომვის შედეგებს, ქართულ და ინგლისურ ენაზე.

დანართი: 2 გვ.

პატივისცემით,

სააგენტოს უფროსი



ნინო თანდილაშვილი



ინფორმაცია
 ატმოსფერულ ჰაერში დამაბინძურებელ ინგრედიენტთა კონცენტრაციის და ხმაურის შესახებ
 შპს „ლუდვიგ პრაიდერ ჰობ უნდ ტიფბაუ და კო.კგ-ის წარმომადგენლობასაქართველოში“
 მარტი 2018წ.

ხელშეკრულება 05.03.2018წ. № მფ-3/133
 პასუხის დანართი

სინჯის ადგილის ადგილი,კოორდინატები	ხმაური დბ	მტვერი მგ/მ ³	გოგირდის დიოქსიდი ppm	აზოტის დიოქსიდი მგ/მ ³	ნაზშირყანგი მგ/მ ³
ზუგდიდი X 0734032 Y 4708177	52.4	0.013	<0.1	0.004	0.89
ურეკი X 0730260 Y 4650631	54.6	0.015	<0.1	0.005	0.35

შემსრულებლები:

მთავარი სპეციალისტი

მთავარი სეციალისტი

სპეციალისტი

შეთანხმებულია:

გარემოს დამაბინძურების მონიტორინგის

დეპარტამენტის უფროსი



ომარ ყენია

სერგო ხაცავა

გიგლა მორგოშია

მარინე არაბიძე

Photos of Zug-02 project - Rehabilitation of Sewerage Network in Zugdidi



Photos of Reg-03/a project – Mobilization process



Zug-02

Non-Compliance Notice

Project: USIIP	Non-compliance Notice Zugdidi
Contract No: Zug-02	
Reference: Zugdidi – Camp site and networks	
<p>This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently.</p>	
<ul style="list-style-type: none"> • All workers should be equipped with PPE during the construction and safety rules has to be followed • A flagman should be hired by contractor for the driver of caterpillar during the tranche excavation activities to avoid accidents related to transmission lines. • Hazardous waste containers should be placed with labels on secondary drip tray High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population • Household Waste should be placed at the proper container, at special designated area, labeled and discharged timely <p style="text-align: right;">23 March 2018. Kate Chomakhidze, ES of USIIP</p>	

Grievance redresses mechanism (GRM)

- 3 Any affected person can apply at a UWSCG local service centre in Zugdidi through different ways, either by going to the service centre, sending a letter to the service centre, or calling a hotline. The operators of the service centre can respond by going directly to the affected person if they are disabled to get the written grievance from them. As it was mentioned above the GRM in Zugdidi has been operational since implementation of Reg-01, Anaklia sub-project. GRM system operates in three stages.
- 4 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.
- 5 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 system ³ allows the UWSCG Tbilisi Office to immediately see claims. Therefore, claims submitted to any regional service centre can be monitored by the Head of the Investment Projects Management Office (IPMO), as well as the Head of the Department of Environmental Protection, Resettlement and Construction Permits, Ms.Maka Goderdzishvili.
- 6 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.
- 7 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
- 8 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) 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.
- 9 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

² UWSCG and Supervision Consultant (Eptisa) conducted trainings for service center operators covering general procedures of GRM functioning in order to ensure proper coordination of different departments.

³The **eDocument - Task Management System** was developed by LEPL Financial-Analytical Service of the Ministry of Finance of Georgia. It is an innovative electronic document and task management mechanism for electronically processing of documents. Used by almost all the major budgetary organizations in Georgia, the eDocumentservice offers an opportunity to manage, find, and track documents for information-intensive organizations.

will prepare a brief resume and protocol and the protocol signed by complainant and all parties will be registered in a grievance log.

- 10 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.