

# ENVIRONMENTAL MONITORING REPORT

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Final Bi-Annual  
January – June 2014

**Georgia: Urban Services Improvement Investment Program (Tranche 2)**

Prepared by “United Water Supply Company of Georgia”, LLC, Tbilisi, Georgia for the Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

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## ABBREVIATIONS

|               |  |
|---------------|--|
| <b>ADB</b>    | Asian Development Bank                                   |
| <b>EA</b>     | Executing Agency   |
| <b>EARF</b>   | Environmental Assessment and Review Framework            |
| <b>EIA</b>    | Environmental Impact Assessment                          |
| <b>EIP</b>    | Environmental Impact Permit                              |
| <b>EMP</b>    | Environmental Management Plan                            |
| <b>GoG</b>    | Government of Georgia                                    |
| <b>USIIP</b>  | Urban Sector Improvement Investment Program              |
| <b>IA</b>     | Implementing Agency                                      |
| <b>IEE</b>    | Initial Environmental Examination                        |
| <b>MDF</b>    | Municipal Development Fund                               |
| <b>MFF</b>    | Multi-tranche Financing Facility                         |
| <b>MoENRP</b> | Ministry of Environment and Natural Resources Protection |
| <b>MoRDI</b>  | Ministry of Regional Development & Infrastructure        |
| <b>UWSCG</b>  | United Water Supply Company of Georgia                   |

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## I. INTRODUCTION

1. The present Bi-annual Environmental Monitoring Report covers the time period from January 2014 till June 2014.
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 will be financed by the ADB through its Multi-tranche Financing Facility. Ministry of Regional Development and Infrastructure is the Executing Agency and 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 headworks, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, trunk sewers and sewage treatment facilities.
4. 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.

**ANAKLIA Water and Sewerage Networks** (Contract ANA-01). The construction involves the supply and installation of approximately 69 kilometers of water supply and 70 kilometers of sewerage networks and service connections to all residents and hotels defined for the year 2040 for Anaklia and Ganmukhuri villages (total projected population of about 25,600 people).

The construction works under Contract ANA-01 started on 16th of January 2012 and was completed in May 2014. The proposed Bi-Annual Environmental Monitoring Report is prepared considering the time period from January 2014 to June 2014.

**MESTIA Water and Sewerage Networks** (Contract MES-02). The construction/rehabilitation of approximately 30 kilometers of water supply and 46 kilometers of sewerage network will cover the whole town of Mestia including the historic center and the future touristic zones covering all residents and hotels defined for the year 2040 thus benefiting total projected population of about 25,300 people.

5. Tranche 2 of the Investment Program includes the construction of Anaklia and Mestia Water Supply and Sewerage Distribution Networks, and the construction of Anaklia Wastewater Treatment Plant.
6. The following projects are financed under Tranche 2: The Contract for Construction of Mestia Water Supply and Sewerage Distribution Networks was signed with Joint Venture of New Energy LTD – Georgia and Enguri 2006 LTD – Georgia (From 11 April 2013 the name of Enguri 2006 LTD has been changed into - New Construction LTD) in October 2011. Works are scheduled for completion by the end of August -2014.
7. ANAKLIA Wastewater Treatment Plant (Contract REG-02): The scope of works includes the construction of a Wastewater Treatment Plant (the treated wastewater to be discharged into Enguri River). The bidder is required to bid for the design and construction of the first stage of a modular wastewater treatment plant (WWTP) in Anaklia. The design is to cater for the full flow and pollution loads for the 2040 population equivalent of 25,611PE but the first stage of construction is to provide all treatment processes for only half of the flow and loads calculated for 2040. In addition to the WWTP, the Contractor shall design and build the pressure lines leading from the collector network to the WWTP and from the WWTP to the outlet into the river.
8. Within the reporting period UWSCG has submitted the Second Stage Bid Evaluation Report to ADB for their review and no-objection.
9. The Project's Environmental Impact Monitoring and Mitigation is carried out in accordance with the Environmental Management Plans prepared by the contractor. The construction activities affecting the environment are as follows: (As the contract for REG-02 has not been awarded as of this reporting period, only ANA-01 and MES-02 are reported on in this report)
  - a. Contractor's mobilization and site installation;
  - b. Excavation works;
  - c. Removal of soil;
  - d. Pipe installation;
  - e. Backfilling and compaction.
10. The main parameters monitored during the construction period were loss of top soil, disposal of surplus waste soil, compaction and reinstatement, disturbance to business and people during construction and generation of dust.
11. The subproject construction sites under both Contracts 1 and 2 are located in Government-owned land. There are no protected areas, wetlands, mangroves, or estuaries. A land Acquisition and Resettlement Plan was prepared and approved during the reporting period for the purchase under contract MES-02 of a small land

parcel for the future installation of sewerage pump station #2. Trees, vegetation (mostly shrubs and grasses), and animals in the subproject sites are those commonly found in built-up areas.

**A. Construction activities and Project Progress during previous 6 months**

12. **ANAKLIA Water and Sewerage Networks** (Contract ANA-01). The detailed activities which were carried out by the Contractor of ANA-01 in the past 6 months (January-June 2014) are as follows:

**ANA-01**

|   |   |
|---|---|
| ANA-01 (water)                            | <b>Water Supply Network</b>   |
| Sites                                     | <ol style="list-style-type: none"> <li>1. Anaklia network</li> <li>2. Ganmukhuri network</li> </ol>   |
| Works Undertaken during January-June 2014 | <ul style="list-style-type: none"> <li>➤ 78 no. underground valves installed</li> <li>➤ 1 booster pump installed</li> <li>➤ Test at completion and commissioning test of entire water system</li> <li>➤ Water quality test at completion</li> </ul> |

|                                  |  |
|----------------------------------|--|
| ANA-01 (wastewater)              | <b>Sewerage Network</b>  |
| Sites                            | <ol style="list-style-type: none"> <li>1. Anaklia network</li> <li>2. Ganmukhuri network</li> <li>3. Existing WWTP</li> </ol>  |
| Works Undertaken during S-1/2014 | <ul style="list-style-type: none"> <li>➤ 1 no. sewerage pump shaft installed</li> <li>➤ 16 no. sets of sewerage pumps/temporary switchboards installed (1-7 May for temporary commissioning test)</li> <li>➤ 16 no. permanent switchboards installed (26-29 June, with final commissioning test)</li> <li>➤ Interconnection of existing WWTP on 7<sup>th</sup> May 2014</li> </ul> |

|   |  |
|---|--|
| ANA-01 (Service Center)                   | <b>Service Center Building</b>   |
| Sites                                     | <ol style="list-style-type: none"> <li>1. Service Center Zugdidi</li> </ol>  |
| Works Undertaken during January-June 2014 | <ul style="list-style-type: none"> <li>➤ Excavation works</li> <li>➤ Foundation, structural and roofing works</li> <li>➤ Landscaping/exterior works</li> </ul> |

13. **MESTIA Water and Sewerage Networks** (Contract MES-02). Overall physical progress of the work under Mes-02 sub-project is 79%. The activities which were carried out by the Contractor in the past 6 months (January-June 2014) are as follows:

## MES-02

|                                  |  |
|----------------------------------|--|
| MES-02 (water)                   | <b>Water Supply Network</b>  |
| Sites                            | <ol style="list-style-type: none"> <li>1. Water supply network (new)</li> <li>2. Bridge crossings</li> <li>3. Lanchavil service reservoir</li> </ol>   |
| Works Undertaken during S-1/2014 | <ul style="list-style-type: none"> <li>➤ 7.571 km of water pipes installed</li> <li>➤ 4.5 km of water pipe tested</li> <li>➤ 2 no. hydrants installed</li> <li>➤ Installation of 2 river crossings to support water mains</li> </ul> |

|                                  |   |
|----------------------------------|---|
| MES-02 (wastewater)              | <b>Sewerage Network</b>   |
| Sites                            | <ol style="list-style-type: none"> <li>1. Sewerage network (new)</li> <li>2. Bridge crossings</li> <li>3. Discharge points (4)</li> </ol>   |
| Works Undertaken during S-1/2014 | <ul style="list-style-type: none"> <li>➤ 1.289 km of sewerage collector installed (gravity and pressure lines)</li> <li>➤ 83 no. of manholes installed</li> <li>➤ 16.1 km of CCTV inspection carried out in new collectors</li> </ul> |

|   |  |
|---|--|
| MES-02 (Service Center)                   | <b>Service Center Building</b>   |
| Sites                                     | <ol style="list-style-type: none"> <li>2. Service Center Mestia</li> </ol>   |
| Works Undertaken during January-June 2014 | <ul style="list-style-type: none"> <li>➤ Excavation works</li> <li>➤ Foundation, structural and roofing works</li> <li>➤ Landscaping/exterior works</li> </ul> |

## B. Environmental Management Team

### (A) Agencies Involved in Investment Program Implementation

14. 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
- 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 Department for Investment Projects Management (the name of department is changed from April 2014) is established within the UWSCG for all Investment Program related functions. The IPMO coordinates construction of subprojects, and ensure consistency of approach and performance
- UWSCG as responsible IA for the project recruited a Supervision Consultant (SC). The national and international team of consultants assist UWSCG as project supervision for the construction of sub- projects under the USIIP. The SC also provides capacity building training to contractor staff for management and operation and maintenance for the Projects. The SC assist UWSCG in assuring that the project is implemented according to the specified standards. SC assignment includes the supervising of the implementation of the environmental management plan
- All mitigation measures during construction have to be implemented by the contractor that will be monitored by the supervision consultant (SC). To ensure smooth Implementation of EMP of sub-projects, an Environmental Management Specialist (EMS) is employed by the SC. SC/EMS conducts routine observations and surveys, prepares quarterly environmental reports and submits to UWSCG
- The Contractor has the following obligations:
  - to employ Environmental Consultant responsible for developing and implementing the construction phase EMP and for provision of corresponding information to UWSCG and SC;
  - to prepare SEMP;
  - to develop, if required, a Spoil Disposal Plan and Construction Waste Disposal Plan agreed with the MoENRP and Local Government;
- ADB is the donor financing the Investment Program.
- DC is responsible for incorporation of mitigation measures in design and construction
- The environmental specialist (ES) is hired by UWSCG under the USIIP to assist and advise the Division of Resettlement and Environmental Protection (DREP) of UWSCG 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 safeguard compliance. ES supports DREP in EARF

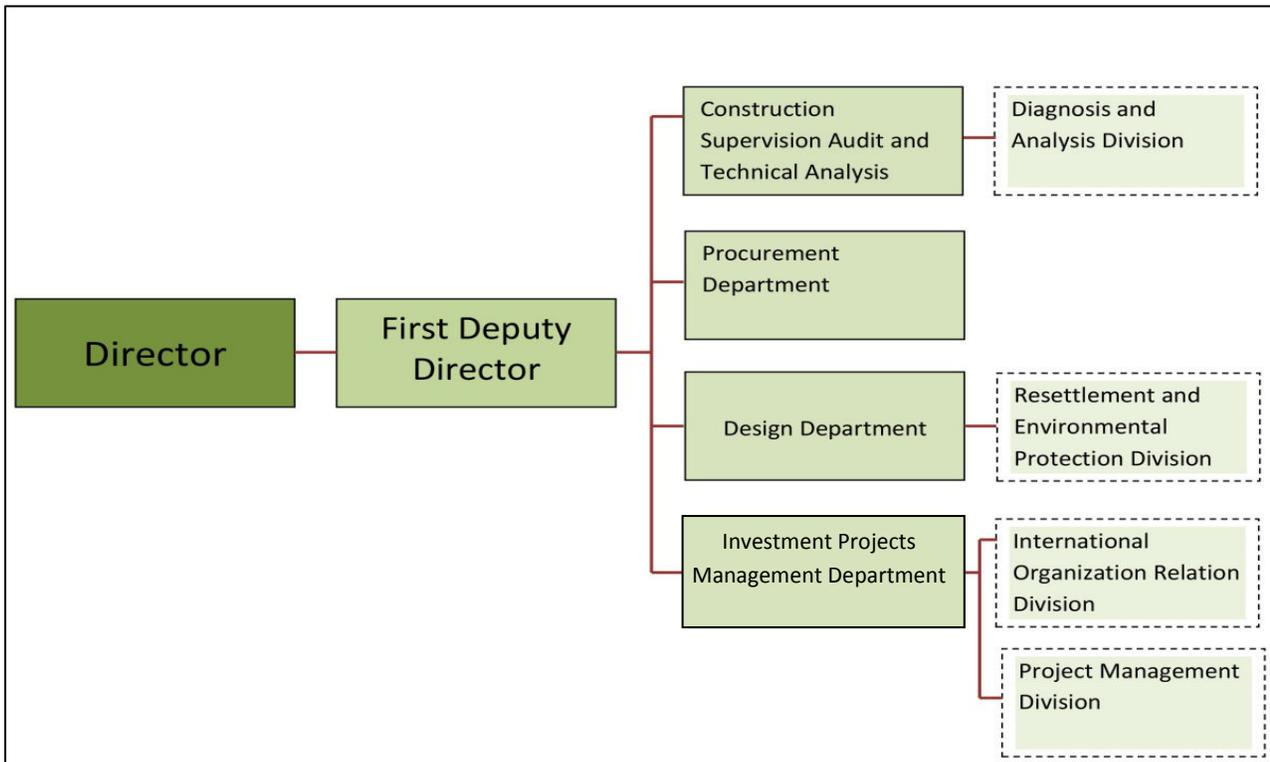
implementation, in particular, reviewing IEE/EIA Reports and overseeing implementation of EMP/SEMPs. In training and capacity building activities. The ES prepares bi-annual reports and submits to ADB

- DREP is responsible for Implementation of mitigation and monitoring measures during construction and operation of sub-projects under USIIP. Currently DREP is staffed with a Head of Division, who is responsible for both resettlement and environmental issues, and Senior Environmental Specialist (SES).

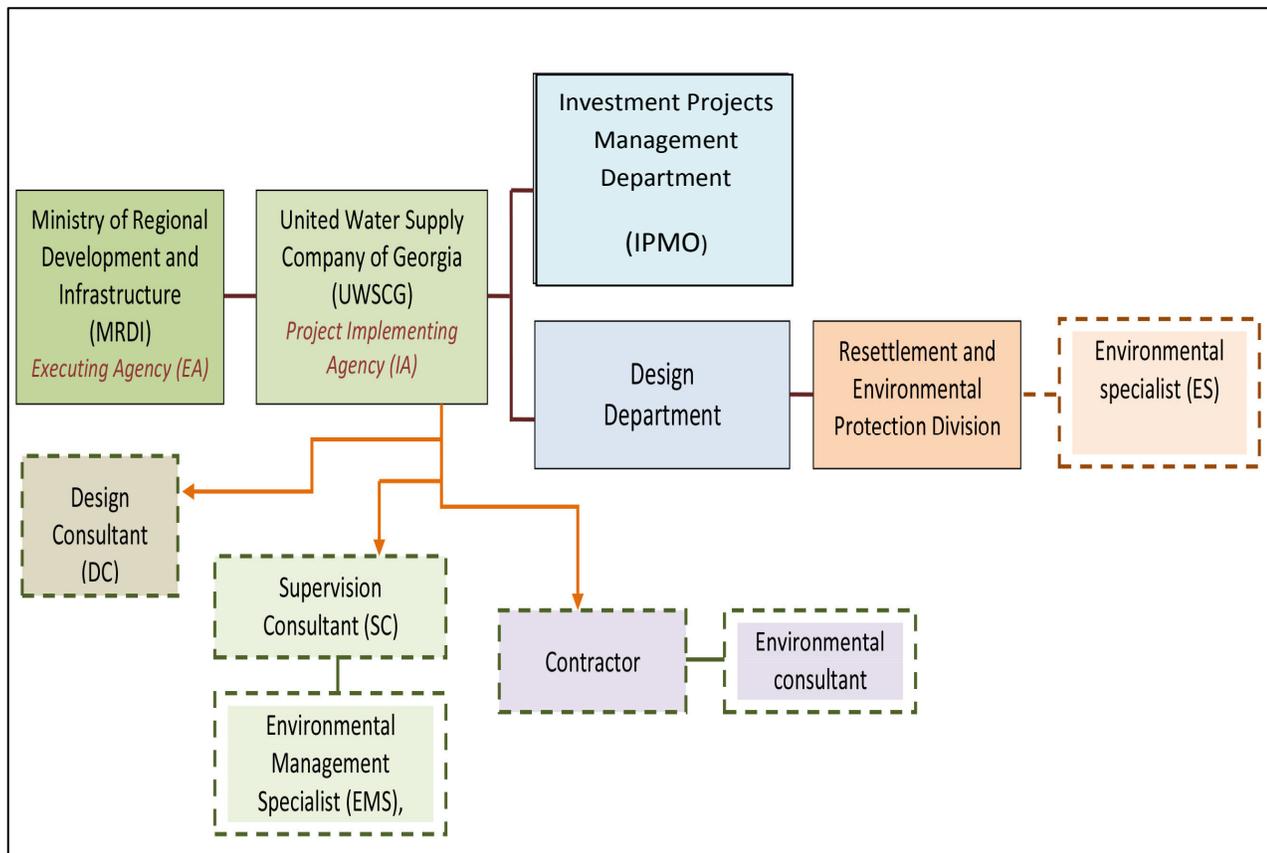
14. Environmental management organization is shown in Figure 1 and Figure 2.

**(B) Organizational structure of the Project's Environmental Management System**

**Figure 1.**  
Structure Diagram of the Environmental Management Unit of UWSCG



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



### C. Awareness and trainings

#### (a) Anaklia and Ganmukhuri water supply and sanitation rehabilitation project

15. In May 2014 the preparations have started for the PA campaign for sanitation project. Several households were interviewed to identify the topics of particular interest for the population. As this is the first time most of the households in Anaklia and Ganmukhuri will have access to central sanitation system a special focus will be paid to technical issues. Based on the successful cooperation the same NGO that carried out the PA activities for the water supply project was selected to conduct the Sanitation PA campaign. The text for the brochure was prepared and is being approved. The active PA campaign consisting of the door to door campaign and consultation meetings will start from July, 2014. The Environmental team of Eptisa and UESCG will be actively involved in public consultation process.

## **(b) Mestia water supply and sanitation rehabilitation project**

16. During the reporting period PA specialists conducted a survey in Mestia to find out how well the population was informed about the project and what were the main topics that they were interested to receive more information on and through which communication channels. 40 households were interviewed in Mestia based on which the main topics and communication channels for the Mestia water supply and sanitation project PA campaign were identified. Based on the results of the survey the text of the brochure was created. The brochure will be printed and distributed to the local population in July in parallel with the public consultation meetings with the population that will be carried out by Eptisa and UWSCG. As there are no media outlets in Mestia the main communication channels will include door to door campaign and public consultation meetings.

### **D. Grievance redresses mechanism (GRM)**

17. Implementation of grievance redress mechanism is clearly defined in approved IEEs under USIIP. The grievance redress mechanism implementation includes the following main steps: structure of GRM implementation of operation; Administrative and functional distribution of responsibilities; clear steps on information (complaints) treatment and flow within UWSCG and ADB.
18. UWSCG on its part, is responsible to provide a direct channel to the affected and concerned citizens for approaching project authorities and have their grievance recorded and redressed in an appropriate time frame.
19. The DREP at the head office of UWSCG is available for the local complaint cells for establishing direct links to relevant environmental authorities.
20. As the main construction works are finalized and sub-projects have modest impact on environment that may be easily mitigated, No GRM was established under Mes-02 and Ana-01 projects. No complaints by local population were received during the reporting period.
21. **Updating of IEE / EIA for Mestia:** At the initial stage of USIIP inception, construction of WWTP in Mestia was envisaged. UWSCG developed EIA for Construction of Treatment Plant and obtained the Environment Impact Permit from the Ministry of Environment of Georgia for the Construction in 2011. Then previous government agreed with ADB of exclusion of the component from the investment program. As the result, if not immediate actions undertaken untreated waste water from newly rehabilitated network in Mestia will be directly discharged in Mestiachala river until construction of the WWTP. According to the SPS 2009 and Loan

Agreement this is an unanticipated impact and requires immediate actions to address the problem.

22. Based on above mentioned UWSCG instructs EPTISA to conduct a full feasibility study for wastewater treatment at the foreseen location and land available which to meet is large enough for either a bioreactor plant type similar to BIOTAL or a small activated sludge plant, including costs.
23. The FS conducted during the reporting period by EPTISA has resulted in the following recommendation: A first phase to be constructed immediately, which includes two sewerage pumps for conveying waste waters to the WWTP site, a pre-treatment and a physical treatment (primary treatment), to achieve BOD reduction to the limits set on EU Directive (Art.4.2). This will avoid discharging untreated effluent improving thus river water quality, and the operation costs would be affordable for the UWSCG. A second phase, complimentary with the previous one, to be implemented as the population forecast develops, where a secondary (biological) treatment is included to increase the quality of the effluent discharged to the river, for fully achieve EU standards requirements and Georgian Standards.
24. The final FS report will be delivered in July 2014 considering a third treatment option using a bioreactor system similar to BIOTAL type used in other cities of the country.
25. In addition Eptisa have prepared the Terms of Reference for a study to evaluate the impact of untreated effluent discharge at 4 river location outfalls from the sewerage collection system which is 99% completed as at June, 30, 2014. Testing of the sewerage system built under Contract MES-02 is expected to be completed by end of Aug. 2014 and the system put in operation at the time. The study for the Untreated Wastewater Outfalls and 4 Sewerage Collectors is expected to be conducted during Aug. 2014.
26. The updated IEE study will be based on the results of the above study for the Untreated Wastewater Outfalls and 4 Sewerage Collectors and will be delivered to ADB by the end of August.

## **II. ENVIRONMENTAL MONITORING**

27. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and USIIP Environmental Specialist on a regular basis in Anaklia, and only two times in Mestia because of weather condition, during the period January-June 2014. Monitoring sheets (Mitigation Compliance & Inspection Monitoring Forms submitted by ADB) were filled in during the site visits.

28. Unscheduled monitoring visits were carried out in Anaklia, and non-compliance notes has been issued to the contractor as needed. Mitigated measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.
29. The monitoring activities included:
- The monitoring of compliance of construction activities under Mes-01 project sites to the EMP requirements;
  - The monitoring of compliance of construction activities under Ana-01 project sites to the EMP requirements;
30. Environmental Monitoring Specialist of SC/Eptisa develops quarterly monitoring reports for UWSCG/DREP based on the environmental site inspection.
31. USSIP ES of DREP performs monitoring of contractor's performance with the approved EMPs, environmental Standards and other environmental commitment of the contractor. ES develops bi-annual EMRs and submits to ADB based on the quarterly reports prepared by SC and site monitoring results.

#### **A. Water quality**

36. Bacteriological water sampling and analyses was carried out at the commissioning stage of ANA-01. As a result of minor contamination of the raw water from the 2 production wells the disinfection and flushing of the wells and distribution network were carried out through super-chlorination of the facilities to ensure the safety of distributed water. A second round of sampling after chlorination indicated an acceptable level of residual chlorinate in all part of the network.. Water quality is now in compliance with Georgian and European water quality regulations and the system is now commissioned..

#### **B. Baseline Data**

37. No baseline data is provided in IEE of Anaklia WWS and Mes-02 sub-projects for air and noise. As the main construction works are finalized project has modest impact on environment that may be easily mitigated, therefore monitoring was limited to inspections to verify compliance with mitigation requirements.

### III. ENVIRONMENTAL MANAGEMENT

#### A. Site Inspections

38. Regular site monitoring visits have been carried out during the reporting period by Eptisa and UWSCG for both Ana-01 and Mes-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 to the Contractor's personal responsible for Environmental issues. Mitigation measures have then been discussed with the contractor on-site and detail instructions were delivered. Good Practice in compliance with Georgian and international H&S legislation were therefore enforced in accordance with the legislation and the Contractor's contract for both Mes-02 and Ana-01 projects.
39. The contractors were always informed on the detected non-compliances and were demanded to improve the deadline set and send photos on improvements. Environmental team of Eptisa and UWSCG monitored the improvements during the next monitoring visits. An unimproved environmental issues were qualified as non-compliances and notices issued to contractor (Annex B).
40. 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 below.

**Table 2: Implementation of Recommended Mitigation Measures – Ana 01 (deadline for improvements 7-01 days)**

| Impact on Environment                                     | May 2015   | June 2014 | July 2014 |
|---|--|-----------|-----------|
| Impacts caused by excavation and generation of waste soil | <p><b>Recommended Mitigations:</b></p> <p>Utilize surplus/waste soil for other construction activities or to raise the ground-level of low level sites</p> | Completed |           |

|   |   |   |  |
|---|---|---|--|
| loss of top soil                            | <p><b>Recommended mitigations:</b></p> <p>Top soil of about 1 ft depth (0.3 m) shall be removed and stored separately during excavation work, and after pipeline construction the same soil shall be replaced on the top</p> <p>Carry out reinstatement works along road trenches and around service manholes</p> | <p>In spite of the fact that main construction activities are finalized still there remain some reinstatement activities to be done</p> <p>Filled trenches are mostly covered with local vegetation</p> | Completed, but in some places still need improvement |
| Safety risk for local residents and workers | Ensure that all workers are provided with and use safety - helmets, hand gloves, boots, masks   | Completed<br>Contractor's safety advisor controlled the sites. All workers were equipped with relevant PPE.   |  |

**Table 3: Implementation of Recommended Mitigation Measures – Mestia 02**

**MES-02 Project**

| Impact on Environment                                     | May 2015   | June 6, 2014   | July 30, 2014       |
|---|--|--|---------------------|
| <b>To be improved immediately</b>                         |  |  |                     |
| Impacts caused by excavation and generation of waste soil | <p><b>Recommended Mitigations:</b></p> <p>The surplus/waste soil pile should be stored separately for further use at the dedicated place</p> <p>Utilize surplus/waste soil for other construction activities or to raise the ground-level of low level sites</p> | <p>The majority of works is accomplished but still there are some places at the construction sites where reinstatement activities are not completed and some additional works has to be done by graders.</p> <p>Non-compliance notes issued (06.06.2014)</p> | Completed partially |

|  |   |  |                            |
|--|---|--|----------------------------|
| <p>Disturbance to business, people, activities and socio-cultural resources due to construction work</p> | <p><b>Recommended mitigations:</b></p> <p>All openly left trenches should be fenced properly with standard warning signs and safety tapes</p> <p>Provide wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required; Increasing workforce to complete the work in minimum time in the town.</p> <p>Refilling/compaction and reinstatement process should bring site at the same condition as it was before construction</p> | <p>Not completed</p> <p>Non-compliance notes issued (06.06.2014)</p> | <p>Completed partially</p> |
|--|---|--|----------------------------|

## B. Non-Compliance Notices

### Mes-02

41. Corrective actions requested after the Monitoring of sites were not always addressed adequately. During the course of the construction supervision in the previous six months of the works “non compliance Notice” was written by Eptisa and UWSCG to the contractor.
42. This particular “non compliance Notice” was issued because of continues non-compliance with instructions given during each monitoring visits. Namely network construction activities in Mestia didn’t comply with EHS requirements.
43. The issued “non compliance notice” is annexed to the report (Annex B).

### Ana-01

44. No written notes have been issued during the reporting period. All notes were verbal and given to the contractor during the site visits.

## C. Corrective Action Plans

45. To resolve the observed issues, the regular Environmental Meetings have been initiated with participation of UWSCG/IPMO/DREP, Eptisa, Contractors. During the meetings environmental issues and implementation of the mitigation measures were discussed. Agreements were reached that contractor shall respond on the monitoring of the compliance carried out by SC and UWSCG. On-site inspection and monitoring of the mitigation measures were carried out jointly by Eptisa and UWSCG with the contractor to document progress of corrective actions being implemented.

**Table 4:** Actions taken for implementation of mitigation measures under REG-01 and MES- 01 projects and status of improvements by the June 30, 2014.

### ANA-01

| Construction Site | Environmental Issues   | Action taken |
|-------------------|--|--------------|
| Mes-01            | Impacts caused by excavation and generation of waste soil  | Completed    |
|                   | Top soil removed and stored separately during excavation work, and after pipeline construction the same soil replaced on the top | Completed    |

|  |   |                     |
|--|---|---------------------|
|  |   |                     |
|  | Carry out reinstatement works along road trenches and around service manholes                     | Completed partially |
|  | Disturbance to business, people, activities and socio-cultural resources due to construction work | Completed           |
|  | Safety risk for local residents and workers   | Completed           |

**MES-02**

| <b>Construction Site</b> | <b>Environmental Issues</b>   | <b>Action taken</b> |
|--------------------------|---|---------------------|
|                          |   |                     |
| Mes-01                   | Impacts caused by excavation and generation of waste soil   | Completed partially |
|                          | Disturbance to business, people, activities and socio-cultural resources due to construction work | Completed partially |
|                          | Safety risk for local residents and workers   | Completed partially |

#### IV. CONCLUSIONS AND RECOMMENDATIONS

46. As presented in this report, tranche-2 of this Investment Program is being implemented in compliance with the ADB Safeguard Policy Statement, 2009, National Legislation and overall EARF.
47. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the Environmental Management Plan for Ana-01 and Mes-02 projects.

**Table 5: Recommendations to address Environmental Issues**

| Recommendations  | Responsible Party   |
|--|---|
| <b>Mes-02</b>  |   |
| The surplus/waste soil should be stored separately for further use at the dedicated place to avoid disturbance of the population, if trenches are left open more than 24 hours | Contractor to perform physical interventions; Contractor's Site engineer to monitor progress and provide weekly reports to Eptisa |
| Relevant wooden/metal walkways/planks should be installed across open trenches when passing settlement area  | Contractor to perform physical interventions; Contractor's Site engineer to monitor progress and provide weekly reports to Eptisa |
| Cover trucks with tarpaulins and spraying water on the road to avoid dust generation   | Contractor to perform physical interventions; Contractor's Site engineer to monitor progress and provide weekly reports to Eptisa |
| The standard fixing should be used for warning signs or safety tape  | Contractor to perform physical interventions; Contractor's Site engineer to monitor progress and provide weekly reports to Eptisa |
| Refilling/compaction and reinstatement process should bring site at the same condition as it was before construction   | Contractor to perform physical interventions; Contractor's Site engineer to monitor progress and provide weekly reports to Eptisa |
|  |   |

#### V. ACTION PLAN FOR THE NEXT PERIOD

48. Conduct public awareness campaign in July 2014 under contract MES-02 by Eptisa and UWSCG;

49. Update Mestia IEE for the Waste Water Treatment on the bases of Conducted full Feasibility Study by Eptisa and submit to ADB (end of August 2014);
50. Finalize post-construction Environmental Audit of Ana-01 project (end of August 2014);
51. ANA-01 project construction phase is completed and all preparatory issues to conduct post-construction audit has already been addressed. the post construction audit report will be submitted to ADB by the end of August 2014. The audit will be carried out by the independent environmental consultant who has relevant qualification.

**Annex A: Projects photos:  
Ana-01**



**Mes-02**



Annex B:



Urban Services Improvement Investment Project - Georgia

Date: 06/06/2014

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**Non Compliance Notice**

|  |  |
|--|--|
| Project: USIIP   | <b>Non-compliance Notice<br/>Mes-01, Mes-02<br/>Mestia</b> |
| Contract No : Mes-01, Mes-02   |  |
| Contractor : New Construction  |  |
| Reference : Mes-01, Mes-02 networks  |  |
| Monitoring of projects was conducted by Ketevan Chomakhidze Environmental Specialist of USIIP (UWSCG)  |  |
| 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 <b>urgently</b>   |  |
| <p><b>Non-Compliance at networks under Mes-01 and Mes-02 Projects</b></p> <p><b>To be improved immediately</b></p> <ul style="list-style-type: none"> <li>- The surplus/waste soil should be stored separately for further use at the dedicated place to avoid disturbance of the population, if trenches are left open more than 24 hours</li> <li>- Installed walkways by New Construction not corresponding the standards and instructions given to Contractor by Environmental Specialists of Eptisa and UWSCG, therefore relevant wooden/metal walkways/planks should be installed across open trenches when passing settlement area</li> <li>- Cover trucks with tarpaulins and spraying water on the road to avoid dust generation</li> <li>- Ensure that all workers are provided with and use safety - helmets, hand gloves, boots, masks, safety belts (while working at heights etc);</li> <li>- All openly left trenches should be fenced properly with standard warning signs and safety tapes</li> </ul> |  |