Initial Environmental and Social Compliance Audit

Project Number: 49223-001 June 2016

GEO: Nenskra Hydropower Project

Prepared by Mott MacDonald

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Executive Summary

Mott MacDonald was appointed by the Asian Development Bank (ADB) to act as Lenders Technical Advisor (LTA) in connection with the construction of Nenskra Hydropower Project (the Project) located in the Republic of Georgia. The LTA scope includes for environmental, health, safety and social (EHSS) monitoring of the Project.

ADB requested that Mott MacDonald undertake an EHSS audit of the early works connected with the Project. The objective of the audit was to perform an initial review of the early works package and to prepare a corrective action plan to facilitate the management of improvement actions going forward. Included in the review were the contractor's scope of works, the Project timeframe and programme and the EHSS management plans prepared for the early works package.

This report presents the findings of the EHSS audit. The audit comprised a site visit undertaken by two Mott MacDonald consultants, one environmental and one social, accompanied by a Georgian environmental and social (E&S) consultant between 18th and 20th January 2016 as well as a review of Project documentation and discussions/meetings with members of the Project team and site operatives. The audit findings relate to the status of the Project at the time of the site visit and unless otherwise stated do not reflect any subsequent changes or improvements that may have been made.

The Project is being developed by JSC Nenskra Hydro, whose main shareholders are K-water, a Korean government agency and a Partnership Fund (an investment fund owned by the Government of Georgia) who are working with a group of international finance institutions (IFIs), which include EBRD, ADB, European Investment Bank (EIB) and SACE.

At the time of the site visit in January 2016 EHSS management on site was of a reasonable standard, considering the early stage of construction works. JSC Nenskra Hydro and the EPC Contractor had produced an initial Environmental Management Plan (EMP), reviewed in January 2016, which was considered a good starting point and were working to develop all required EHSS management plans and procedures. These were required to be prepared as a priority and in



advance of any relevant construction activity commencing to ensure compliance with the Lender guidelines and Good International Industry Practice (GIIP).

The EPC Contractors EHSS staffing levels were found to be below expectations and employment of additional EHSS staff, including a social specialist to oversee implementation of the H&S and Social issues on site is considered a priority¹. It has also been highlighted that some additional environmental expertise may be required on site to assist JSC Nenskra Hydro which Mott MacDonald fully supports.

The site visit identified a number of high risk items with regards to waste management, pollution prevention, land acquisition and physical displacement and working conditions that should be rectified as soon as possible to further improve EHSS management. We also identified a number of other areas for improvement which are presented in the form of a Corrective Action Plan.

During the construction phase of the Project, Mott MacDonald estimates an overall budget for environmental and social activities of 1,450,000 USD. It is assumed however that costs associated with a number of activities have already been included within the EPC Contractors costs.

The table below highlights the high risk compliance issues identified by the audit and provides a summary of suggested mitigations measures to be put into place.

EHSS Topic	Compliance	Risk	Corrective Action
Site Environmental Monitoring and Reporting	Informal site inspections were being undertaken regularly by the HSE Officer for the EPC Contractor; however, monitoring by JSC Nenskra Hydro had not commenced in January 2016.	н	JSC Nenskra Hydro and EPC Contractor to develop and implement a checklist which incorporates SLR Consulting ESMP parameters and general good housekeeping site checks.
	A site inspection checklist had been produced but was not formally approved and therefore was not in use. Monthly Progress Reports were not undertaken by JSC Nenskra Hydro or the EPC Contractor.		Record and maintain a registry of all daily and weekly site inspections and monitoring results in line with the Environmental Management Plan (EMP).
			Implement weekly and monthly Progress Reports once approved by EPC Contractor head office and JSC Nenskra Hydro. This is to include reporting of GHG emissions.

Table 1.1: High Risk Items and Corrective Actions

¹ As of 01 June 2016 we understood the recruitment process to have commenced.



EHSS Topic	Compliance	Risk	Corrective Action
Materials Handling and Storage Re-fuelling	All plant and equipment were being re-fuelled directly from a fuel tanker that visits the site on a regular basis. The re-fuelling process was not controlled by procedures and no additional pollution prevention measures were put in place, or undertaken by operatives designated and trained.	н	To ensure that re-fuelling on site is undertaken in a controlled manner, a Re- fuelling Procedure is to be developed and implemented. A dedicated site operative is to undertake all re-fuelling on site. This person is to be trained and seen to be competent at re- fuelling and spill response. Re-fuelling to be undertaken within a dedicated area/s only which is/are to be located on hardstanding and covered to reduce water ingress. Spill response equipment is to be situated within the re- fuelling area and close to all fuel tankers. All fuel containing tankers, fixed or mobile are to be doubled skinned.
Materials Handling and Storage Oil containment	At the time of the site visit in January 2016, all fuel containing plant, equipment and fuel cans in relation to the geotechnical works were stored within their dedicated storage area when not in use. This store was locked and covered to restrict water ingress. During the visit it was observed that bunding/ impermeable bases were not used to prevent pollution to soils/groundwater in the event of a spill or leakage (refer to Figure A.12) Spill response equipment in the form of sand and wood-chippings were observed to be in use, however these were located within the stores area and not at the point of works.	Н	A construction Materials Handling and Storage Plan should be developed. Appropriate materials storage areas should be provided for the Project. The size and location of these areas will need to be based on the maximum volume of storage that will be required at each site at the peak period of construction for that site. The space for the storage area will need to be taken into account in determining the area of land required to be purchased and the storage area will need to be carefully planned into the layout of each construction site. Oil/chemicals should be stored in tanks or drums located in bunded areas on impermeable surfaces, which can hold 110% of the capacity of the largest tank or drum or, for multiple drum storage, 25% of the total volume of material stored. Spill kits should be provided adjacent to areas where hazardous liquids are stored or used. All material and oil/chemical storage is to be located as far as possible away from water courses.
Hazardous, non-hazardous waste and inert management	A WMP was not developed at the time of the site visit by JSC Nenskra Hydro or the EPC Contractor to manage Project waste. Once this is developed, the WMP is to be issued to the Ministry of Environment and Natural Resources Protection, as required under Georgian law During the site visit it was noted that a number of segregated waste bins were provided within the site laydown area and appeared to be used effectively (refer to Figure A.11) Minimal volumes of waste had been produced as of January 2016. No formal waste collection had been set up. Waste was transferred by the	Η	Develop and implement a WMP for the roadworks and main dam works (this will need to be revised as construction activity increases). Issue WMP to the Ministry of Environment and Natural Resources Protection. Obtain quotes and hire suitable waste contractors prior to the commencement of the roadworks to collect and dispose of waste, including hazardous, non-hazardous and inert wastes, and hold copies of their certification or licences on record. We recommend that further opportunities



EHSS Topic	Compliance	Risk	Corrective Action
	EPC Contractor to the nearest disposal site operated by the Municipality. No formal permit is required for the transfer and disposal of waste at this time, as defined under Georgian law. This is due to be updated in the future to align with EU Directives. Records of waste transferred off site were not maintained. Waste was only being monitored qualitatively (visually) and no quantification of waste generation was being recorded; this is a moderate concern.		for reuse of some of the waste on site or by local communities are investigated prior to disposing to landfill and that these activities are recorded. Develop waste transfer forms to record all waste removed from site. These are to be kept on site and used to inform the WMP and waste register. We also recommend initiating the registry of all waste transfers and hazardous and non-hazardous waste generation, handling and ultimate disposal (detailing type of waste and quantities/volumes). A quarterly report should be prepared during construction and included in the relevant
Land acquisition and physical displacement	The Land Acquisition and Livelihood Restoration Plan (LALRP) had not been prepared at the time of the site visit, so there is no official procedure to acquire land or displace people in the Project area. The dam site area is already acquired through the construction permit. The dam and reservoir area is the main local pastureland and there are an additional two wooden sheds with cultivated land and fencing. These sheds had not been officially acquired or compensated. The LALRP is a crucial document to manage the land acquisition and physical displacement processes. Physical displacement of two permanent residents from the powerhouse area was planned for April 2016 ² . Land will be required to undertake the widening and upgrading of roads through the residential areas, as well as for the permanent camps and installations near the dam site area. The sites selected for the temporary camp and technical installations are on pasture sites used during the summer periods. Neither the EPC Contractor nor JSC Nenskra Hydro has set up temporary land acquisition processes. These processes should build on the main land acquisition process and be used when additional land is needed for temporary storage areas.	Η	Monthly Progress Report. Adopt the Land Acquisition and Livelihood Restoration Plan developed by SLR Consulting and ensure all land acquisition activities are undertaken in line with the plan. Document all activities including, but not limited to, agreements with landowners and users with respect to valuation, date of moving/acquiring land, and compensation received. Ensure compliance with Lender requirements for private sector responsibility under government-managed resettlement. Develop procedures to acquire land temporarily. The principles, compensation, valuation should be in line with the LALRP. All temporary land acquisition activities need to be documented in the same way as for permanent land acquisition.
Working conditions	The dam site area had a temporary shelter and resting area for the workers. This is not adequate to provide shelter for all workers and does not have any toilet or hand washing facilities. The EPC Contractor and the subcontractor confirmed that mobile toilets will be set up on the site. There was no bottled water provided to workers	н	Set up and maintain a resting area on site where workers can warm up and take refreshments and lunch. Make sure this resting area includes bathrooms and hand washing facilities. Separate facilities for male and female workers should be provided. Ensure that appropriate measures are taken to ensure acceptable

² As of 01 June 2016 (outside of the auditing period) negotiations with the owners of the properties had stagnated with the owners refusing toparticipate in negotiations.



EHSS Topic	Compliance	Risk	Corrective Action
	on site in January 2016. They were encouraged to access drinking water from the river and springs. The majority of workers working for the subcontractor are from the valley so they are used to drinking the water from the river and springs. The shelter area did not provide heating or refrigerating facilities or other kitchen and dining equipment. There was a fireplace in the shelter but it was not operating at the time of the site visit. With temperatures well below zero in the winter it should be operational.		working conditions taking into account seasonal variations in tempreature. During the winter period the resting area should be heated and during the summer period it should be cooled. Insect repellents and screens to prevent flies and mosquitoes entering the resting area should be installed. Adequate drinking water should be provided on site.



1 Introduction

1.1 Overview

Mott MacDonald was appointed by the Asian Development Bank (ADB) to act as Lenders Technical Advisor (LTA) in connection with the construction of Nenskra Hydropower Project (the Project) located in the Republic of Georgia. The LTA scope includes for environmental, health, safety and social (EHSS) monitoring of the Project.

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1.2 Project Context and Construction Progress

The Project involves the construction and operation of a high head hydroelectric power plant (HPP) with an installed capacity of 280MW, located within the Nenskra and Nakra valleys in North West Georgia.

The Project comprises the following key components:

- A 135m high and 820m wide asphalt-core rock fill dam of on the upper Nenskra River, creating a reservoir with an approximate storage of 182Mm³ and covering an area of 3km² (at full supply level).
- A 13m high and 57m long weir on the Nakra River.
- A 12.4km long by 4.5m diameter free flow transfer tunnel which will divert water from behind the Nakra weir and into the Nenskra River reservoir. The maximum water transfer capacity will be 46m³ per second.
- An above ground powerhouse located on the left bank of the Nenskra River that is 15km downstream of the dam. This will contain 4 x 70MW Pelton power generation units.
- A 15.1km long by 4.5m diameter concrete lined headrace tunnel and a pressure shaft and underground penstocks totalling 1,580m.
- A 220kV transmission line running from the switchyard of the powerhouse to the Jvari substation (which is still to be constructed)³.

The Project location and layout of key components is shown in Figure 1.1.

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³ This information was accurate at the time of the site visit. As of 01 June 2016 there had been a number of changes to the information presented here.





Figure 1.1: Project Location and Layout of Key Components

Source: SLR Project Definition

The Project is being developed by JSC Nenskra Hydro, whose main shareholders are K-water, a Korean government agency and a Partnership Fund (an investment fund owned by the Government of Georgia) who are working with a group of international finance institutions (IFIs), which include EBRD, ADB, European Investment Fund (EIB) and SACE.

The main construction period is planned to start in September 2016 and will last four years. Power generation is scheduled for 2020 but could commence early generation in 2019 if the conditions are favourable.

Early construction works commenced in September 2015 and included topographical surveys, geotechnical surveys, rehabilitation of access roads, construction of workers camps and technical installations. These works are due to be completed by September 2016 but were behind schedule due to changes in design of the roads and bridges by the appointed EPC Contractor. As of January 2016 some of the access roads had been rehabilitated outside of Chuberri village and these works were undertaken in conjunction with the Municipality. The EPC Contractor was preparing plans and designs with an alternative dam



location. These were based on topographical survey results and were to be shared and discussed with JSC Nenskra Hydro with a view to confirming the new design by May 2016. Local architects had been employed to design the construction camps and associated installations due to be constructed in July 2016.

At the time of the site visit works underway included geo-technical site investigations and site establishment in preparation for the access road works; however the weather conditions had delayed the site investigations due to heavy snowfall.

The following sub-contractors employed directly by JSC Nenskra Hydro were on site in January 2016:

- Salini: EPC Contractor
- Georgian Construction Company (GCC): current minor civil works associated with the roadwork preparation and geo-technical investigation
- Welt3: geo-technical investigation

1.3 Site Visit Methodology

A site visit was undertaken by Nicola Catt (Mott MacDonald Environmental Auditor), Ildiko Almasi (Social Auditor) and Irakli Kaviladze (Georgian E&S consultant) hereafter known as the 'Consultants', to assess the status of the construction phase between 18 and 20 January 2016 with the objective of evaluating the EHSS management for the Project site and construction activities. Table 1.1 sets out the site visit itinerary.

	e visit funerally			
Date	Activity	Time		
Saturday 16 th Jan 2016	Arrive in Tbilisi	00:30		
Sunday	Travel to Zugdidi	10:00 – 17:00		
17 th Jan 2016	Meeting with JSC Nenska Hydro Project Team and Stucky (Engineering Company)	18:00 – 19:00		
Monday	Travel to the Nenskra Site	09:00 - 11.00		
18 th Jan 2016	Visit roadworks and key Project locations including bridges, the proposed power house location, proposed construction camps and installation areas	11:00 – 12:00		
	Meeting with EPC Contractor (Salini)	12:00 – 15:00		
	Visit of the dam site and current geo-technical works	15:00 – 16:00		
	Travel to Zugdidi	16:00 – 18:00		
Tuesday	Travel to the Nenskra Site	09:00 - 11:00		
19 th Jan 2016	Visit to the dam site and discussions with the GCC.	11:00 – 13:00		
	View GCC and Welt3 site cabins and storage areas			
	Travel to Tbilisi	13:00 – 20:30		
Wednesday	Meeting with Salini	10:00 – 12:00		
20 th Jan 2016	Close Out meeting with JSC Nenskra Hydro	12:00 – 13:00		

Table	1.1:	Site Visit Itinerary



A document request was sent to JSC Nenskra Hydro and the EPC Contractor in advance of the site visit. This request contained a list of documentation including the Environmental Management Plan, Health and Safety Plan, Stakeholder Engagement Plan, Community Health and Safety Plan, Human Resources records and Labour Management Plan and any other applicable site specific management plans that were readily available.

Documentation was reviewed on site and soft copies were acquired for further review. The site visit allowed for two meetings with the management team of the EPC Contractor; on the first day for an initial interview and on the last day to ask further questions about the reviewed documentation. The EPC Contractor delivered the available management plans used for the early works; however the package was not complete and was still being updated based on JSC Nenskra Hydro's comments.

Interviews with various site personnel were undertaken based on a previously identified set of questions covering various EHSS topics including labour and working conditions, occupational health and safety and internal grievances. These interviews extended not only to the management team of the EPC Contractor, who did not have workers on site in January 2016, but also to the subcontractor GCC.

The interviews were organised in a mini focus group format due to the lack of translation available on site. These groups comprised of 6-8 workers who provided answers to the questions. The conditions on the site did not allow for interviews longer than 20 minutes due to heavy snowfall. The Consultants walked around the sites and conducted short interviews with groups of workers who were operating machinery. These interviews focused on health and safety and environmental aspects. The Consultants inspected the work site including all available facilities and storage areas. This allowed for observations to verify information shared by EPC Contractor and subcontractor management teams.

The Consultants had planned to interview people from Chuberri village; however a national holiday and a funeral made it impossible to reach out to the villagers while the team was on site. GCC confirmed that all of their workers are from the valley so we can assume that villagers are informed about works through the people employed by the subcontractor. The Consultants met the two Community Liaison Officers (CLOs) and conducted an interview to find out more about stakeholder engagement activities and information disclosure, especially focusing on the Nenskra valley where the early works have already started. This allowed for a verification of information provided by JSC Nenskra Hydro and the EPC Contractor on community engagement.

The official land acquisition activities had not been undertaken and only state owned land had been provided for the Project early works at the time of the site visit. All records of land acquisition, whether state owned or private, were requested for review; although no documentation was available. The state owned land being used for the early works, in particular the dam site, was acquired as part of the permitting process. The Consultant built on the previous site visit and information from the Social Impact Assessment (SIA) to determine which state owned land used by the villagers was acquired by the Project without the official land acquisition process being implemented.



Photographs taken during the site visit are contained within Appendix A. Key reports received and reviewed during this site visit are listed within Appendix B, these are the reports that were due for submission prior to the site visit in accordance with the agreed scope of works.

1.4 Legislative Framework

1.4.1 Asian Development Bank Standards and Guidelines

The EHSS audit has been performed against the ADB Safeguard Policy Statement 2009 and the following Safeguard Requirements:

- Safeguard Requirement 1 Environment
- Safeguard Requirement 2 Involuntary Resettlement
- Safeguard Requirement 3 Indigenous Peoples

The following Safeguard Requirements have not been deemed applicable to this EHSS audit and have therefore not been included within the audit scope⁴:

- ADB Safeguard Requirement 1: Environment, Section D, Environmental Assessment
- ADB Safeguard Requirement 4: Special Requirements for Different Finance Modalities.

The following ADB policies have also been considered as part of the audit process:

- The ADB Gender and Development Policy 2003
- The ADB Public Communication Policy 2011

1.4.2 Georgian Legislative Requirements

Following the declaration of independence in 1991, Georgia has updated its legislation, including those related to environmental law. The national environmental laws are largely based on EU legislation and the principles of the Rio Declaration on Environment and Development. Whilst developing new environmental law, focus was given to the environmental challenges that the country faces and the principles of sustainable development.

The following Georgian legalisation is deemed relevant for the Project:

- Georgian Law of Environmental Protection (as amended 26.12.2014)
- Law of Georgia on Environmental Impact Permits (14/12/2007)
- Law of Georgia on Soil Protection (as amended 14.06.2014)
- Law of Georgia on Animal Wildlife (as amended 15.01.2015)
- Law of Georgia on Minerals (as amended 26.12.2014)
- Law of Georgia on Water (as amended 26.12.2014)
- Law of Georgia on Ambient Air Protection (as amended 5.02.2014)
- Forestry Code of Georgia (amended 6.09.2013)

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⁴ Please note that all ADB Safeguard Requirements, including those not relevant to this EHSS audit have been considered as part of the Mott MacDonald Environmental and Social Due Diligence for the Project completed in July 2015.



- Red List and Red Book of Georgia (as amended 6.09.2013)
- Law of Georgia on Cultural Heritage (as amended 26.12.2014)
- Law of Georgia, Waste Management Code (26.12.2014)
- Technical regulation approved by Governmental Decree No424, December 31, 2013 issued by the Government of Georgia On Removal, Retaining, Utilization and Re-cultivation of Fertile Layer of Soil

1.5 Report Structure

The report is structured into the following chapters:

- Chapter 2: EHSS Compliance this chapter presents a review of the Project against the ADB standards described in Section 2.1.
- Chapter 3: Conclusions and Corrective Actions this chapter builds upon the recommendations made in Chapter 2 to form the Corrective Action Plan (CAP).



2 EHSS Compliance

2.1 Overview

This section presents the findings of the EHSS review of the Project, which has been informed by document review and the site visit and meetings undertaken between 18th and 20th January 2016. The audit has been performed against the ADB standards as set out in Section 1.4.1.

Overall EHSS management on site was found to be of a reasonable standard in January 2016, considering the early stage of the construction works.

The findings of the EHSS audit are provided in Table 2.2. Any non-compliances identified have been discussed and ranked using the criteria defined below in Table 2.1. Additional comments, justifications and recommended actions are also presented. These have been transposed into a CAP that is included in Section 3.2 with recommended timeframes for implementation.

	LI 100 Misk Matings	
Category	Risk	Description
	No Risk	Good international practice being implemented.
L	Low Risk Item	Not representative of good international standards.
М	Medium Risk Item	Poses a potential risk to environment and / or workforce and / or community.
Н	High Risk Item	Immediate risk posed to environment and / or workforce and / or community.

Table 2.1: EHSS Risk Ratings



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
ADB Safeguard R	Require	ment 1: Environme	ent, Section D, Page 30 – 40		
Section D.2: Envire	onmenta	al Planning and Mar	nagement		
Section D.2.12 – D.2.16	1.1	Environmental Management System and Management	 Plans and procedures required to be produced by JSC Nenskra Hydro were not completed in full so could not be reviewed during the site visit. An Environmental Management Plan (EMP) for the construction of new, and rehabilitation of existing access roads had been developed by the EPC Contractor which defines the Project's policies, outlines what plans and procedures are to be prepared and identifies aspects and impacts associated with the Project. 	Μ	 Prepare full Environmental and Social Management System (ESMS) for JSC Nenskra Hydro and EPC Contractor. All plans, procedures and mitigation measures outline
		Plans			within the ESMP produced by SLR Consulting are to be produced and referenced within the updated ESMS
					 Where mitigation measures outlined within the SLR ESMP are not required on the ground then a marked up ESMP must be submitted to JSC Nenskra and the
		 Mott MacDonald has reviewed this document and considers it appropriate for the early works. No other environmental plans or procedures have been produced at the time of the site visit in January 2016. 	considers it appropriate for the early works.		Lenders with justification included for any deviations. Any deviations would be subject to approval. This process would be ongoing throughout construction.
				 At present the current EPC Contractor's EMP is relat to the roadworks only and is not site or task specific. 	
			 An Environmental and Social Management Plan (ESMP) has been produced by SLR Consulting as part of the Environmental and Social Impact Assessment (ESIA) for which JSC Nenskra Hydro will ultimately be responsible for implementation. The EPC Contractor has sub-contracted a consultancy to prepare all required EHSS plans and procedures 		 ESMS to be completed in full, referencing the site an task specific aspects for all construction works.
					 EHSS management systems, plans, policies and procedures will need to be continually reviewed and
					checked for relevance as the construction phase progresses.
			required. The scope of works is as follows: – Prepare master EMP which will follow the existing plan		 Additional plans required during construction that should be developed as a priority to manage current
			 Prepare each required management plan specific to the site 		Project activity include but are not limited to: – Waste Management Plan (WMP)
			 Produce risk assessment and mitigation plans 		- Waste Management Plan - Traffic Management Plan
					 Hazardous Substance Handling and Storage Management Plan

Table 2.2: Environmental Health Safety and Social Review - January 2016



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.2	Human Resources (HR) Policies	 The Loan agreement and the EPC contract specify compliance with international standards and Lender requirements in terms of HR policies. The EPC Contractor's HR policy is in line with EU legislation and is governed by the human resources framework set up in the head office in Italy. Elements of the policy have been modified to reflect Georgian legislation. The EPC Contractor applies equal opportunities and non-discrimination policies. 	L	No further action
	1.3	Permits	 Environmental Permit was obtained from The Minister of Environment and Natural Resources Protection of Georgia in October 2015. This was viewed at the EPC Contractor's office. 	М	 Additional permits and licences will be required during the construction works, including Tree Removal, Spoil Storage (temporary and permanent), water abstraction and water discharge.
			 No other permits or licences had been obtained at the time of the site visit. 		 Permits and licences obtained to date and those required were not included within the EMP. A permit register should be included within the EMP and this should be updated on a regular basis. This register should also be included within the Monthly Progress Report.
					 Any Georgian standards included within the permits must be researched at the pre-construction stage and mitigation on site designed to ensure all likely permit requirements can be complied with. This information should be captured in a detailed preliminary draft of the permit register and the technical team must be informed of likely requirements at the design stage.
					 It should be noted that in particular, Georgian standards for water discharge quality and spoil disposal area design can be onerous for projects of this nature and compliance will require very careful management.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.4	Site EHS Personnel	 Roles and responsibilities of the EPC Contractor were identified within the EMP viewed in January 2016. EPC Contractor employed one HSE Officer in January 2016. JSC Nenskra Hydro employed one Environmental Manager in January 2016. It is understood that additional resources will be employed by the EPC Contractor, including roles for EHSS. No other resources are proposed to be employed by JSC Nenskra Hydro. 	L	 Based on the Lender requirements and the scale of the Project, it is the opinion of Mott MacDonald that additional EHSS resources will be required during the construction phase of the Project. JSC Nenskra Hydro to employ additional EHSS personnel. EPC Contractor to employ additional EHSS personnel. It is expected that one dedicated EHSS representative is to be present on each distinct construction site on a full time basis for JSC Nenskra Hydro and the EPC Contractor. Provision should therefore allow for shift work. The EHSS representatives must be provided with the authority to stop works as and when required to maintain EHSS standards. Provision must also be allowed for EHSS staff to have unhindered access to transport and any other equipment or facilities required to perform their role effectively. CV's of the proposed new team members to be provided to Mott MacDonald for review.
Section D.3: Information Disclosure	1.5	SEP containing measures to disclose Project information	 A SEP was developed as part of the ESIA in 2015 and it was updated based on comments from the Lenders in January 2016. The workshop in January 2016 in Tbilisi resulted in further updates to the SEP. The final document is still to be approved by JSC Nenskra Hydro and the Lenders group. The planned billboards, posters and other disclosure methods are to be set up. The Project website is not set up as of May 2016. Information online can only be found on the Lenders' and EPC Contractor's website. 	Н	 The SEP needs to be finalised and disclosed immediately. The SEP should specify roles and responsibilities for information disclosure, methods and schedules for disclosing certain project information, and maintaining the functional grievance mechanism.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Section D.4: Consultation and Participation	1.6	Regular and documented consultation events with meaningful participation of interested and affected stakeholders	 Project information was disclosed during the stakeholder meetings organised in 2015. During these meetings the ESIA, draft SEP and draft supplementary studies were disclosed and discussed with the local people. The consultation activities in 2015 were transparent and inclusive. The opportunity was given to affected people to ask questions or raise concerns about the Project. A meeting with non-governmental organisations (NGOs) is scheduled for 2016 to introduce the Project and discuss the report findings with NGOs and other interested stakeholders. A specific date for this consultation had not been committed to at the time of the January site visit. 	Н	 Develop and implement the SEP immediately. Establish procedures to meaningfully involve all interested and affected stakeholders in regular consultation activities throughout the Project life cycle. Meetings to be attended by Salini and other contractors to share construction schedule and information about construction impacts.
Section D.5: Grievance Redress Mechanism	1.7	Establish and document a grievance mechanism (GM)	 A GM has been defined in the draft SEP 2016 that is expected to be finalised by the end of May 2016, but it has not been fully implemented. There is no grievance log or database, and the roles and responsibilities are not clearly defined about recording and responding to grievances. 	Н	 Develop and implement a formal GM immediately including: Designating responsibilities about recording and responding to grievances both for JSC Nenskra and for Salini. Ensuring personnel responsible for operation are appropriately trained and have a clear understanding of their role and the time and resources available to them. Establish grievance log Disclosed the GM to communities with grievance telephone numbers and/or the project website/email address displayed on signage around the Project site.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Section D.6: Monitoring and Reporting	1.8	Site Environmental Monitoring and Reporting	 At the time of the site visit informal site inspections were being undertaken regularly by the HSE Officer for the EPC Contractor; however, monitoring by JSC Nenskra Hydro had not commenced. 	Н	 JSC Nenskra Hydro and EPC Contractor to develop and implement a checklist which incorporates SLR Consulting ESMP parameters and general good housekeeping site checks.
			 A site inspection checklist had been produced but was not formally approved and therefore was not in use in January 2016. 		 Record and maintain a registry of all daily and weekly site inspections and monitoring results in line with EMP.
			 Monthly Progress Reports were not undertaken by JSC Nenskra Hydro or the EPC Contractor at the time of the site visit. 		 Implement weekly and monthly Progress Reports once approved by EPC Contractor head office and JSC Nenskra Hydro.
					 Implement weekly environmental meetings between the client, owners engineer and EPC Contractor environmental managers to monitor compliance and issues arising in relation to the ESMP and to share relevant environmental information, including findings of any environmental monitoring or surveys as may inform onsite mitigation and any project non- conformances. Minutes of these minutes are to be recorded.
	1.9	-	 Due to the early stage of the works, no formal environmental monitoring was being undertaken on site. Once the roadworks and main dam works commence in 	М	 In advance of the works commencing, monitoring is to be set up, for example equipment to be ordered, monitoring procedures and checklists are to be
			September 2016, formal monitoring will be undertaken by the EPC Contractor in line with the SLR Consulting ESMP.		 developed. Undertake all environmental monitoring as defined within the Project EMP and SLR Consulting ESMP, for example dust, water emissions and noise.
					 Monitoring results must be reviewed and shared with relevant parties (such as at the weekly environmental meetings as described above). Additional mitigation can then be identified, agreed and implemented efficiently where monitoring results identify issues.
Section D.7: Unanticipated Environmental Impacts	1.10	Emergency Preparedness and Response Plan	 JSC Nenskra Hydro was finalising its EPRP to be in line with Lenders' requirements in January 2016. The EPC Contractor has a generic emergency response plan that is not detailed and not aligned to the specifics of the site. The workers were not informed about specific emergencies and actions, i.e. when asked what they do in case of an oil spill they said they just use the sand provided by the EPC to cover it. 	М	• EPC Contractor to develop a site specific EPRP. Share the EPRP with emergency service providers, especially ambulance, police and fire services.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
•			stainable Natural Resource Management	TISK	- comment and recommendations
a) Modified Habitats	1.11	Ecology and biodiversity	At the time of the site visit no intrusive works were being undertaken within the works site.	No risk	
b) Natural Habitats			 All impacts from the Project have been reviewed as part of the Due Diligence. 		
c) Critical Habitats			 As part of the overall the EHSS management system, management of ecology and biodiversity is to be 		
d) Legally Protected Areas		_	included in terms of what mitigation measures may be required as identified within the ESMP produced by SLR Consulting.		
e) Invasive Alien Species	1.12		 At the time of the site visit it was observed that no invasive species were present and none were introduced. 	No risk	
f) Managemen and Use of Renewable	1.13		 At the time of the site visit minor works were being undertaken and no evidence of the sustainable use of resources was available. 	No risk	
Natural Resources			 As part of the overall EHSS management system, the management of resources is to be included in terms of their sustainable use and where practicable renewable energy could be implemented during the construction phase as identified within the ESMP produced by SLR Consulting. 		
			 The Project itself is a renewable energy source. 		
Section D.9: Poll	ution Pre	vention and Abateme	ent		
a) Pollution Prevention, Resource	1.14	Re-fuelling	 At the time of the site visit all plant and equipment were being re-fuelled directly from a fuel tanker that visits the site on a regular basis. 	н	 To ensure that re-fuelling on site is undertaken in a controlled manner, a Refuelling Procedure is to be developed and implemented.
Conservatior and Energy Efficiency			 The refuelling process was not controlled by procedures and no additional pollution prevention measures were put in place, or undertaken by designated and trained 		 A dedicated site operative is to undertake all refuelling on site. This person is to be trained and seen to be competent at re-fuelling and spill response.
			operatives.		 Refuelling to be undertaken within a dedicated area/s only which is/are to be located on hardstanding and covered to reduce water ingress. Spill response equipment is to be situated within the refuelling area and close to all fuel tankers.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations	
	1.15	Oil containment	 At the time of the site visit all fuel containing plant, equipment and fuel cans in relation to the geotechnical works were stored within their dedicated storage area when not in use. This store was locked and covered to restrict water ingress. During the visit it was observed that bunding/ impermeable bases were not used to prevent pollution to 	н	 A construction Materials Handling and Storage Plan should be developed. Appropriate materials storage areas should be provided for the Project. Oil/chemicals should be stored in tanks or drums located in bunded areas on impermeable surfaces, which can hold 110% of the capacity of the largest tank or drum or, for multiple 	
			soils/groundwater in the event of a spill or leakage (refer to Figure A.12).		drum storage, 25% of the total volume of material stored.	
			 Spill response equipment in the form of sand and wood- chippings were observed to be in use, however these were located within the stores area and not at the point of works. 		 Spill kits should be provided adjacent to areas where hazardous liquids are stored or used. 	
b) Wastes	1.16	6 Waste water, drainage and water discharge	 At the time of the site visit waste water was not being produced and dewatering not carried out on site. 	L	 Confirm location and design of settlement ponds in line with the SLR Consulting ESMP and Good International 	
			 The location of the required sedimentation and settlement ponds had not been confirmed in January 2016. The design of these required ponds will be aligned 		Industry Practice (GIIP). Specific procedures will be required to cover the following different types of settlement pond as applicable:	
				to the SLR Consultancy ESMP.Wastewater collection systems for both grey and black		 Tunnel waters (treatment of continuous (potentially high) flows of high sediment load, potential cement contamination)
			water from the current accommodation and offices have been installed as per standard industry practices and in compliance with national regulatory requirements. This		 Cement contaminated settlement waters from concrete batching plant 	
			included a septic tank.		 Very high sediment load waters from crusher plant 	
			 During the main construction phase dewatering will be undertaken on a regular basis from excavations and 		 Vehicle wash waters (potential oil contamination) 	
			tunnelling activities. The ESMP prepared by SLR Consulting details that any water to be discharged to ground or watercourses is undertaken in a controlled manner. No procedure or management plan for this activity has been developed at the time of the site visit.		 Develop and implement a site specific procedure and system for the pumping and discharge of water to ground or watercourses. 	



ADB Safeguard Requirement	l #	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.17	Hazardous, non- hazardous waste and inert management	 A WMP had not been developed by JSC Nenskra Hydro or the EPC Contractor to manage Project waste at the time of the site visit. Once this is developed, the WMP is to be issued to the Ministry of Environment and Natural Resources Protection, as required under Georgian law. 	н	 Develop and implement a WMP for the roadworks and main dam works (this will need to be revised as construction activity increases). Issue WMP to the Ministry of Environment and Natural Resources Protection.
			• During the site visit it was noted that a number of segregated waste bins were provided within the site laydown area and appeared to be being used effectively (refer to Figure A.11).		 Obtain quotes and hire suitable waste contractors prior to the commencement of the roadworks to collect and dispose of waste, including hazardous, non-hazardous and inert wastes, and hold copies of their certification or licences on record.
			 Minimal volumes of waste were being produced at the time of the site visit. No formal waste collection had been set up and waste was being transferred by the EPC Contractor to the nearest disposal site operated by the Municipality. No formal permit is required for the transfer 		 We recommend that further opportunities for reuse of some of the waste on site or by local communities are investigated prior to disposing to landfill and that these activities are recorded.
			and disposal of waste at this time, as defined under Georgian law. This is due to be updated in the future to align with EU Directives.		 Develop waste transfer forms to record all waste removed from site. These are to be kept on site and used to inform the WMP and waste register.
			 Records of waste transferred off site were not being maintained at the time of the site visit. 		 We also recommend initiating the registry of all waste transfers and hazardous and non-hazardous waste
			 At the time of the sit visit waste was only being monitored qualitatively (visually) and no quantification of waste generation is being recorded; this is a moderate concern 		generation, handling and ultimate disposal (detailing type of waste and quantities/volumes). A quarterly report should be prepared during construction and included in the relevant Monthly Progress Report.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
c) Hazardous Materials	1.18	Hazardous materials	 The EPC Contractor and the geo-technical contractor maintained copies of Material Safety Data Sheets (MSDS) for all hazardous materials held on-site to inform storage and handling requirements and so that in the event of a spill or leak, information is available on potential risks, both to nearby receptors and the health and safety of construction workers. The MSDS's were seen to be held within the EPC Contractor office and therefore not located at or near the point of works. Materials were stored near to and within the stores area and at point of works. During the visit it was observed that bunding/ impermeable bases were not used to prevent pollution to soils/groundwater in the event of a spill or leakage (refer to Figure A.12) 	Μ	 All MSDS's are to be present on site at the point of storage or works. Appropriate materials storage areas should be provided for the Project. The size and location of these areas will need to be based on the maximum volume of storage that will be required at each site at the peak period of construction for that site. The space for the storage area will need to be taken into account in determining the area of land required to be purchased and the storage area will need to be carefully planned into the layout of each construction site. Oil/chemicals should be stored in tanks or drums located in bunded areas on impermeable surfaces, which can hold 110% of the capacity of the largest tank or drum or, for multiple drum storage, 25% of the total volume of material stored. A complete inventory of hazardous materials (ie chemicals, oils) should be held onsite so that in the event of a spill, information is available on volumes present.
d) Pesticide Use and Management	1.19	Use of pesticides on site	 At the time of the site visit no intrusive works were being undertaken within the works site. All impacts from the Project have been reviewed as part of the Due Diligence. As part of the overall EHSS management system, management of pesticides is to be included, as identified within the ESMP produced by SLR Consulting. 	No risk	
e) Greenhouse Gas (GHG) Emissions	1.20	Reporting of GHG emissions	 Due to the low level of works on site in January 2016, recording and reporting of the estimated carbon and GHG emissions was not undertaken. Monthly Progress Reports were not being undertaken at the time of the site visit by JSC Nenskra Hydro or the EPC Contractor. As part of the overall the EHSS management system, management of carbon emissions is to be included in terms of what carbon reductions could be made. 	L	 Include the estimated carbon emissions from the construction phase within the monthly Progress Reports. Implement monthly Progress Reports once approved by EPC Contractor head office and JSC Nenskra Hydro.

Section D.10: Health and Safety



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
a) Occupational Health and Safety	1.21	Workers training	 All employees onsite go through basic training in HSE procedures as part of their site induction. Training in specific skills is to be given to relevant employees, including waste management, hazardous materials management and spill response. Informal toolbox talks and site briefings were given to the site operatives; however these were not recorded at the time of the site visit. 	L	 Provide HSE and specific training for all workers, including waste management, hazardous materials management and spill response. Record all toolbox talks and site briefings, information to be provided within the Monthly Progress Meeting.
	1.22	Health and safety	 Health and safety concerns are addressed through the EPC Contractor's general policy, national legislation and industry good practice. The workers receive training on basic health and safety and the use of PPE before starting on the job. The health and safety plans were not site specific at the time of the site visit, and reference of PPE use was generic in the employment contract. The site visit confirmed that all of the workers were wearing their PPE specific to the task they were performing. The workers of the subcontractor were also wearing the PPE, however some of their equipment was not secured. The site and machinery on the site were not secured, i.e. unauthorised access is not prevented and the machinery is parked randomly on site. At the time of the site visit the informal weekly health and safety check is not documented. The site manager or Owners Engineer provides verbal warning for any noncompliance he notices. The EPC Contractor is committed to providing medical support on site; however, there was no first aider on site in January 2016. The workers are required to use the first aid kits from the car in case of an accident and there is no clear procedure for reporting or notifying the authorities in case of an emergency. 	Μ	 Develop a site specific Health and Safety Plan. The Health and Safety Plan should contain measures and procedures for securing equipment, machinery and the work site. Monitoring and auditing requirements and procedures should be included in the Plan and documented. Document training that is provided to workers on health and safety and PPE use. Develop training with task specific health and safety and PPE requirements and ensure that the personnel are trained before commencing employment. Train first aiders and provide equipment for them on site. Develop procedures for medical emergency response clearly indicating the roles and responsibilities and the procedures.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.23	Working conditions	 At the time of the site visit no temporary camp was set up for workers so they stayed in the Tita hotel or rent rooms from local people in the valley. EPC Contractor had approximately 20 people on site on a permanent basis who were renting accommodation 	Н	 Set up permanent shelter on the dam site area including toilet and hand washing facilities. The permanent shelter should consist of basic kitchen and dining facilities. Provide bottled drinking water.
			• The dam site area was being used to store equipment and carry out preliminary works in January 2016. There was a temporary shelter set up by the works that had heating and benches. This temporary shelter can only house a maximum of 15 people so it is not adequate to cater for all the workers on site.		
			 At the time of the site visit the workers had an informal agreement with the owners of the two wooden sheds on site to use the facilities of the shed. There were no bathrooms or hand washing facilities. Drinking water was taken from the streams and rivers and no bottled water was provided. 		
	1.24	Working relationships	 There was no employment relations officer on site for the EPC Contractor at the time of the site visit. 	М	 Develop a Code of Conduct and include it in the employment contract. The Code of Conduct needs to
			 A Workers Management Plan is still to be developed by the EPC Contractor tailored to the site and the required works. 		be site specific and reflect the different phases of the construction.Develop a Workers Management Plan or Labour
			 The need for a specific Code of Conduct is required due to the large number of workers during the peak construction period. 		Management Plan.
			 The camp near the powerhouse area will be in close proximity to Chuberri village so there is a need for a management plan to mitigate impacts on local residents. 		
	1.25	Terms of employment	 The terms of employment are laid out in the employment contract that contains all required information for the EPC Contractor's employees. This includes personal details, start of employment period, probationary period, occupational health and safety (OHS) requirements, salary and payment date, maximum overtime and salary for overtime, termination of employment and more. Based on site interviews, workers are aware of their rights to terminate the contract and of personal protective equipment (PPE) that should be worn on site. 	L	 EPC Contractor to provide training on task specific requirements of PPE use. EPC Contractor to provide records of any training undertaken as part of the induction.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.26	Trade unions	 EPC Contractor was not fully staffed during the early works so there were no trade unions identified during the January visit. 	L	
	1.27	Child labour	 The Georgian legislation stipulates the minimum working age at 18. There were no minors on site and both the EPC Contractor and the subcontractor confirmed they are not employing children. The Consultants did not see any underage workers during the site visit. 	L	 Undertake a detailed labour audit to confirm.
	1.28	Forced labour	 There was no sign of forced labour. The workers can retain their passports and identity documents. The workers are aware that they have the right to terminate employment and are free to leave the premises. 	L	 Undertake a detailed labour audit to confirm.
	1.29	Non- discrimination and equal opportunities	 EPC Contractor confirmed having policies in place to ensure there is no discrimination and equal opportunities are provided for all workers. As of January 2016, women are only employed in the EPC Contractor's Tbilisi office in administrative positions. 	L	 The recruitment process should reflect an inclusive approach to targeting, identifying and retaining workers and employees.
			 EPC Contractor confirmed that certain tasks on the site will be undertaken by women. The EPC Contractor is consulting community leaders to identify vulnerable or socio-economically disadvantaged households to provide them with employment on the Project. 		
	1.30	Labour grievance mechanism	 The EPC Contractor has an informal and undocumented grievance mechanism. This means that the workers can approach their supervisors or the site manager to discuss any issues they may have. 	L	 Implement a site specific internal grievance mechanism. Document the grievance mechanism in a grievance log recording the details of the grievance, the responsibilities and actions taken and the
			 As it is undocumented, there is no information whether any grievances have been received and how the EPC Contractor responded to it. 		resolution. The details of the complainant might also be recorded, though the right to anonymity should be provided.
			 The generic management plans of the EPC Contractor contain provision for setting up a grievance mechanism, though the exact date for setting it up is not specified. 		
	1.31	Supply Chain	 No supply chain assessment has yet been made. 	L	 A supply chain assessment should be undertaken during the next quarter. Sourcing of food, housekeeping and other services for accommodation are areas where the potential for using child or forced labour are higher and should be reviewed in the assessment.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.32	Wages, benefits and conditions of work	 The employment contracts of the EPC Contractor clearly establish the salary, benefits, place of employment and the allowed maximum overtime. The salaries are paid on the 20th of the month. The overtime hours are paid for at a rate 1.5 times the regular rate. The maximum working hours are stipulated at 40 hours a week, while the maximum overtime is 20 hours a week. EPC Contractor pays the benefits and other required contributions such as national insurance, taxes and health coverage. Although no evidence of non-compliance has been identified to date, risks to non-employee workers due to compliance lapses (e.g. paying incorrect overtime) by the construction contractors are always inherent in projects of this nature. 	Μ	 Undertake internal payroll and HR checks of contractors and interview workers to determine that they are paid correctly (especially for over-time), on time and that they understand their timesheets, pay and conditions of work. Where non compliances are identified through staff grievances (once the workers grievance mechanisms has been established), levy penalties on contractors. Consider commissioning an independent labour audit in the event of widespread, multiple and/or repeat non-compliances.
	1.33	Infrastructure and equipment safety	 The site was not deemed secure in January 2016; there were no gates or guards to prevent unauthorised access. The machinery and larger equipment were not parked or stored in a fenced off area. The containers that store other equipment and hazardous waste have locks which are used when there is no work on site. Some of the equipment is not secured 	Μ	 Develop a Site Security Plan that addresses the issues of site and equipment security.
			inside the containers of Well3 the subcontractor. These observations have been shared with the EPC Contractor.		
	1.34	Site Compound	 At the time of the site visit a small site compound was established on site for use during the geo-technical investigation works. Additional cabins had been delivered to the site to be installed for the roadworks. 	М	 Establish the site compound and installation areas in line with SLR ESMP and GIIP.
			 Full site establishment including the construction camps, accommodation and installation facilities are to be constructed by September 2016. 		
			 Suitable facilities are to include requirements stated within the SLR Consulting ESMP and GIIP. 		



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.35	Security personnel on site	• There were no personnel employed to secure the site in January 2016. The plan is to employ a third party company to provide personnel monitoring the site 24 hours a day. Potentially, the security guards will carry weapons.	L	 Develop monitoring mechanisms to ensure that security personnel comply with key Lender requirements. Require training transcripts and frequent drug and alcohol tests for all personnel carrying weapons although it is recommended that security staff do not carry firearms. Security personnel to adhere to UN Voluntary Principles of Security and Human Rights.
b) Community Health and Safety	1.36	community exposure to disease	 As of January over 60% of the workforce employed by the subcontractor was from the Nenskra valley. This minimises the exposure to communicable diseases likely to occur because of the influx of workers. 	М	 Identify procedures for health screening and containing and reporting communicable diseases.
			 Drinking water from the river and streams may increase workers getting sick. 		
			 JSC Nenskra Hydro is finalising its management plans to identify the health and safety risks and propose mitigation measures. EPC Contractor's general Community Liaison Management Plan identifies the issue and requires medical screening prior to the start of employment and randomly throughout the employment. 		
Section D.11: Physical Cultural Resources	1.37	 Protection of cultural heritage in project design and execution 	 The Project was designed to avoid any cultural heritage sites or maintain the flexibility to change elements of the design to avoid impacting on such sites. The detailed designs are informed by the ESIA 2015 and supplementary package. 	L	
			 The EPC Contractor has a policy to protect cultural heritage sites during the construction phase. This policy is generic. 		
	1.38	Screening for risks and impacts on cultural heritage	 An assessment has been undertaken as part of the ESIA 2015 to identify potential impacts and risks on cultural heritage sites. 	L	Implement existing procedures.
			 There are generic procedures developed for the EPC Contractor to undertake an ongoing screening of cultural heritage impacts. 		
			 JSC Nenskra Hydro was developing their site-specific policies since January 2016. 		



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
	1.39	1.39 Screening for risks and impacts on cultural heritage	 An assessment has been undertaken as part of the ESIA 2015 to identify potential impacts and risks on cultural heritage sites. 	L	Implement existing procedures.
			 There are generic procedures developed for the EPC Contractor to undertake an ongoing screening of cultural heritage impacts. 		
			 JSC Nenskra Hydro has been developing their site- specific policies since January 2016. 		
	1.40	Impacts on intangible cultural heritage	 Impacts on intangible heritage such as the herding lifestyle in the valleys have been assessed through various project documentation. 	L	
			 Intangible heritage includes pasturelands traditionally belonging to the families of the valley and Svaneti language/culture that is dominant in the region. 		
	1.41	Chance finds procedures	 JSC Nenskra Hydro and the EPC Contractor are both committed to establish a chance finds procedure. JSC Nenskra Hydro has developed such a process, while the EPC Contractor only has a generic policy which does not details institutional responsibilities and procedures. This needs to be updated and tailored to the site. 	• M	 Develop and implement a site specific chance finds procedure. Train staff on the procedure.
	1.42	Consultation with affected communities	 Consultation activities were undertaken in 2015 during the ESIA process and in December 2015 as part of the supplementary studies. 	L	 Continue ongoing engagement in line with the SEP.
			 These consultations covered issues around cultural heritage and gathered information based on living memory. 		
			 The SEP requires ongoing consultation activities that will allow for discussing any issues around cultural heritage that may emerge during construction. 		



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
ADB Safeguard R	equirer	ment 2: Involuntary	Resettlement, Section D, Page 45 – 50		
Compensation, Assistance and Benefits for Displaced Persons	2.1	Compensation package set out for people affected by physical and economic displacement	 The dam site area was acquired through construction permits granted on communally used government land. There was no compensation provided for people who had wooden sheds, crops on the land or who used it seasonally as pasture land to graze livestock. Construction has commenced and there is no mechanism in place to compensate for temporary loss or harm, or losses or harm to assets during the construction phase. The Land Acquisition and Livelihood Restoration Plan (LALRP) is currently being revised and the compensation packages are currently being developed by SLR Consulting for JSC Nenskra Hydro. It is expected that the Plan will be finalised during May/June 2016. The compensation packages will be approved by the Lenders prior to land acquisition activities commencing. 	Η	 Develop a draft Entitlements Matrix clearly stating compensation measures for the affected people. Disclose this to affected communities for their agreement before finalisation and preparation of consultation packages.


ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Social Impact Assessment	2.2	Social impacts of physical and economic displacement assessed	 As part of ESIA process. Additional impact assessment specifically focusing on resettlement is being undertaken by SLR as part of the supplementary package and will be included in the LALRP. These documents are being finalised as of May 2016. 	М	 Finalise outstanding impact assessments as part of the LALRP supplementary package.
			 The assessments are expected to contain alternative pasture assessment to compensate people who temporarily or permanently lose livelihoods. 		
			 The January 2016 site visit revealed that three households living near the powerhouse area will be physically and economically displaced. Two households contain permanent residents who are reluctant to move due to their emotional attachment to the land. One of the households also has graveyards on the land plot that will be acquired. The third household is a second seasonal home for a family living in the valley. 		
			• The EPC Contractor confirmed in January 2016 that it will try to keep the houses intact so that after the temporary construction phase displacement impacts, they can return.		
			 Further physical displacement is not foreseen, however there will be significant livelihood impacts including the restricted and/or lost access to several pasture areas in the Spring. 		
			 The dam site area is already acquired through the construction permit. The site connects to the main pasture land and houses two wooden sheds with gardens and crops. These were accessible on the site in January, however, no compensation has been paid to the owners, and neither are there measures to protect the fragile structures from damage. Pictures of the dam site area and the structures are included in Appendix B. 		
Resettlement Planning	2.3	Land Acquisition and Livelihood Restoration Plan (LALRP)	 The LALRP is being revised to meet lender standards based on the feedback from the Lenders during the workshop in January 2016. This LALRP will need to be compliant with Lenders' policies and international best practice. It is expected that this document will be finalised during May/June 2016. 	н	 Finalise the LALRP in accordance with Lenders' requirements



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Negotiated Land Acquisition	2.4	Land agreements	 There are three households in the powerhouse area that need to be resettled. The current approach is to negotiate the terms and conditions of the physical displacement based on the draft Entitlements Matrix. These negotiations started in April 2016 and are currently ongoing. 	Н	 Finalise an Entitlements Matrix, document land negotiations and produce land agreements with people affected by physical displacement.
Information Disclosure	2.5	Resettlement related information disclosed and shared with affected people	 To date the LALRP and the Entitlements Matrix has not been finalised or disclosed. 	н	 Brochures and other information material should be developed and disclosed detailing the land acquisition process, compensations and benefits.
Consultation and Participation	2.6	Public meetings organised with resettlement affected people.	 Community engagement meetings in December 2015 covered issues around accessing pastureland and land acquisition. The LALRP is being updated based on Lenders' recommendations and further consultations will be necessary to identify relevant mitigation measures for livelihood impacts. 	н	 Organise consultation meetings with resettlement affected people to describe the Project impacts, compensation packages and Project benefits.
			 Consultations on resettlement of the households in the powerhouse area started in 2015 and are still ongoing. The owners of the houses who reside in the area are not very keen to leave their land and houses due to the graveyards and other intangible attachment to the land. The CLO in the Nenskra valley is also involved in consultations with these landowners. 		
			 There were no specific consultations organised to introduce early works and share potential impacts of those works. 		
Grievance Redress Mechanism	2.7	Grievance mechanism set up and publicised among resettlement	 The new LALRP will contain a grievance mechanism specific to land acquisition, livelihoods and physical displacement. As of January 2016 there are no personnel on site responsible for the collection of resettlement related grievances. 	Η	 Implement a grievance mechanism for the resettlement activities. Delegate roles and responsibilities and set up a grievance log to record complaints.
		affected people	 The CLOs of JSC Nenskra Hydro do not register and report grievances. There is no grievance log, they are not clear about their roles as CLOs and resettlement activities have not started. 		



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Monitoring and Reporting	2.8	Periodic monitoring of activities and status update reports	• The LALRP will be required to establish requirements for internal and external monitoring and reporting of resettlement activities. To date this initial audit is the only monitoring report on the resettlement activities.	М	 Develop and implement the LALRP with clear monitoring and reporting timeframes.
Unanticipated Impacts	2.9	Flexibility to address unanticipated impacts	 The draft LALRP submitted in January 2016 did not contain any measures to address unanticipated impacts. The supplementary package contains additional assessments for instance to map alternative pasture lands that are a result of feedback on the draft LALRP. 	Н	 Closer monitoring and better consultation on resettlement and livelihood related impacts in order to identify any impacts that have not been mitigated through the existing instruments.
			 There are no other tools or procedures to deal with unanticipated impacts. Due to the lack of consultation to date and tensions with the local population, it is necessary to set up procedures to identify, mitigate and manage any new impacts or issues on site. 		
Special Considerations for Indigenous Peoples	2.10	Considerations included in the LALRP	 SLR is currently undertaking additional assessments to determine whether there are any indigenous people in the area. The results of these assessments are expected in June 2016. According to Mott MacDonald's preliminary assessment, the affected people could not be viewed as indigenous, as detailed below. 	L	 In the event that the assessment concludes that there are, specific consultation activities will be undertaken and the Entitlements Matrix will contain specific measures for them.
 ADB Safeguar 	d Requi	rement 3: Indigenou	is Peoples, Section D, Page 55 – 62 .		
Consultation and Participation	3.1	Involvement of indigenous people in the consultation activities	• The consultations undertaken as part of the ESIA in 2015 were inclusive of all people in the valleys. This included any potential indigenous people.	L	 In the event that indigenous peoples are identified, organise specific consultation activities for them.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Social Impact Assessment	3.2	Indigenous people assessment	• It was originally concluded by the ESIA that there are no indigenous people in the area. This was questioned during the preparation of the supplementary package and SLR is currently undertaking additional assessments to establish whether people in the region can be considered indigenous. The results of this will be presented in the revised Social Impact Assessment (SIA).	L	 Based on the outcome of additional assessments to determine the presence of IPs include specific mitigation measures for IPs.
			 According to Mott MacDonald's own preliminary assessment the people in the valleys should not be considered as indigenous because they do not meet three of the four ADB criteria: 		
			 They don't self-identify as members of a distinct indigenous ethnic or cultural group 		
			 Although, they pursue non-wage, subsistence strategies they are also engaged in paid employment and trading of goods 		
			 They don't have a distinct language or dialect, as Svaneti is widely spoken in the region. 		
			 The only criterion that applies is the collective attachment to traditional lands and ancestral territories, including communal pasture lands. 		
			 As part of our final audit we will review the SLR SIA conclusions on IPs where they have been revised from the original position, and confirm or correct them to offer Mott MacDonald's conclusions on the presence of IPs and the extent of IP impacts and mitigation required. 		
Indigenous Peoples Planning	3.3	Special measures included in Project planning.	 As of April 2016 there are no special measures included for indigenous people. 	L	 Based on the outcome of additional assessments include special measures in Project planning reflecting the needs of indigenous people.
Information Disclosure	3.4	Brochures and other information material available for indigenous people.	 As of April 2016 there are no specific information disclosure requirements in pace for indigenous people. 	L	 Based on the outcome of additional assessments include specific requirements for information disclosure in the SEP.
Grievance Redress Mechanism	3.5	Operational grievance mechanism	 The informal grievance mechanism is open for all affected and interested stakeholders. Once the SEP is finalised a grievance mechanism will be put in place. This will not be specific to indigenous people. 	L	 Develop and implement an inclusive and accessible grievance mechanism.



ADB Safeguard Requirement	#	ESHH Parameter	Discussions / Findings	Risk	Comment and Recommendations
Monitoring and Reporting	3.6	Periodic reporting and monitoring of related activities	 There are no reporting or monitoring requirements set up with respect to indigenous people. 	L	 Based on the outcome of additional assessment develop monitoring and reporting requirements specific to indigenous people.
Unanticipated Impacts	3.7	Flexibility to manage unanticipated impacts	 As of April 2016 there are no plans to manage unanticipated impacts related to indigenous people. 	L	 Based on the outcome of additional assessments plan for unanticipated impacts for indigenous people.
Special Requirements	3.8	Ancestral Domains and Lands and Related Natural Resources	 The majority of pasture land that will be acquired for the Project have been used by residents of the valley for generations. Their value is not monetary but there is definitely a deep-rooted attachment. The LALRP will try to identify alternative pasture land in the area and a commitment is made to restore as much of the land taken for temporary use. 	Μ	 Implement any procedures and mitigation measures that are aiming at restoring access to pasture lands, existing pasture lands or the development of new pasturing areas in the region.
	3.9	Consent of Affected Indigenous Peoples Communities	 As indigenous people have not been identified there was no need for consent from the indigenous community. 	L	 Based on the outcome of additional assessments organise additional consultation with indigenous people and obtain their consent for future Project implementation.
	3.10	Indigenous Peoples and Development	 There will be a Community Development Plan that will identify projects to be financed by the Project for the communities in the valleys. 	L	 Based on the outcome of additional assessments include special measures for indigenous people in the Community Development Plan.

Source: Mott MacDonald



2.1.1 Labour and Working Conditions

2.1.1.1 Labour force

Labour related interviews were undertaken on the 18th and 20th of January on site and in the Tbilisi office with the participation of the EPC Contractor's site manager, health and safety manager from the head office, health, safety and environment manager on site and the project manager. In the Tbilisi office staff from the finance and human resources department also joined the discussions, and were interviewed individually during the document checking. The EPC Contractor had no workers on site in January 2016, only management staff, so no EPC Contractor workers were interviewed.

The EPC Contractor has its main office in Tbilisi with engineers and administrative personnel. This office is responsible for human resources related tasks including recruitment, management of personnel data and documentation, as well as payroll activities and bank transfers to employees. This is where the Consultant examined the human resources documents, contracts and payroll data of randomly selected employees. The documents are not kept in one folder for each employee, but the types of documents (copies of passports, contracts, payroll sheets, etc.) are collected by categories.

The contract included the following information both in Georgian and in English:

- Role the person is hired for
- Duration of employment and probation period
- Salary, currency, maximum overtime and the salary paid for overtime and payment date
- Reference to the company's health and safety policy
- Working hours and place of employment
- Ways to terminate the contract

Tita hotel in the Nenskra valley has been rented out to temporarily house the EPC Contractor's site management staff and function as a temporary office before the permanent camp downstream of the dam is built. All 10 rooms in Tita hotel are occupied by the EPC Contractor. The hotel provides meals, as none of the EPC Contractor's staff are local. The EPC Contractor provides transportation to the site and other work areas to all of its workers. The permanent camp will be constructed during the summer of 2016 and all the EPC Contractor staff will move from the temporary camp. The permanent office will be set up in the camp together with additional facilities, including medical, kitchen and dining.

The main administrative centre of the EPC Contractor is in Tbilisi. There is limited documentation on site. EPC Contractor confirmed that the permanent site office will be set up during the summer 2016. This office will store employment contracts and workers' files for people working on site. This office will also contain HR representatives who can assist workers with various issues; this service was not available to workers on site during the January visit. The temporary camp will also house medical facilities that were not provided to people on site. There is no trained first aider and first aids kits from the cars are used to treat medical emergencies.



There were no trade unions of workers employed on the Project during the January visit, although a union might develop as the number of workers rise. The Georgian legislation prevents the use of child or forced labour. There was no evidence of people under 18 employed on the Project. The EPC Contractor confirmed that they have policies to eliminate discrimination and promote equal opportunities. They are planning on hiring women from the valley for specific tasks according to their experience and education. Overtime and working hours are recorded on a timesheet every week by the manager.

The EPC Contractor has no site specific code of conduct that governs the behaviour and responsibilities of workers on site. Due to the large number of EPC Contractor staff on site in proportion to other contractors, this is not an immediate issue; however, as recruitment continues for the main construction phase it might escalate. There was no recruitment plan for the main construction activities in January 2016. Recruitment is undertaken through the Tbilisi office, using an employment agency to advertise, recruit and shortlist workers. The workers do not need to pay the agency to get jobs; the agency is paid by the EPC Contractor. The workers and other staff are either based on site or in Tbilisi with frequent travel to the site.

The only site where work was undertaken in January is the dam site area. This area was covered in snow at the time of the audit. Main access roads were cleared to access the containers, equipment and drilling sites.

An ad-hoc focus group was held with 7-14 workers who are employed by the subcontractor at the dam site area on the 19th January. Heavy snowfall prevented longer discussions and the lack of translation did not allow for smaller groups or individual interviews. Some of the workers who were invited to meet the team were off duty, thus wore no PPE. The staff working wore PPE. Some individual interviews were undertaken to ask about environmental and health and safety measures on the drilling sites.

GCC, the subcontractor, has no permanent or temporary offices on site. In January they have containers on site to store equipment. Over 60% of their workforce is local to the area. The subcontractor provides transportation for the workers from their homes to the site. The workers bring their own meal but there is no heating or refrigeration provided on site. There is a temporary shelter area set up for the workers with a few benches and a heating unit. The subcontractor has two new containers on site that will be set up with better facilities for the workers. These containers were empty. The subcontractor confirmed that these facilities will be set up in the next few weeks. Mobile toilets and hand washing facilities will also be provided. In January there were no such facilities provided for the dam site area.

The subcontractor is also setting up temporary workers' accommodation next to Tita hotel. The project manager for the subcontractor is the owner of Tita hotel, so an agreement was easily made from both sides. There are approximately 10 containers that were empty. These containers will be operational in a few weeks' time to house non-local workers of the subcontractor.

The subcontractor approached people in the valley to offer them employment in project or site management positions. These managers were later asked to recruit more workers from the valley. There is no clarity on the recruitment process. The employees of the subcontractor received a standard employment contract that contained information on the place of work, duration of employment, salaries and



overtime, termination of contract and referenced the health and safety policies of the subcontractor and the EPC Contractor.

When interviewed, the workers were all aware of their rights and responsibilities. They need to complete the basic health and safety training before they can commence employment. There is no information on how task specific this training is. The interview confirmed that the workers are allowed to keep their identification and are free to leave the premises when they want to. They are aware of their right to terminate the contract. The timesheet for each worker is filled out by the manager on site. The workers typically work eight hours a day with one hour allocated for lunch. Longer working days might occur during the summer periods when they work up to 10 hours a day. They are set up to work in groups of eight with a group leader designated to manage tasks. Apart from the one-hour lunch break, the workers can have 10 minute breaks every hour. There is no bottled water provided on site, drinking water is obtained from the rivers and springs. They are transported to the worksite in minibuses from the village. Salaries are paid through bank transfers. The only inconvenience is that the closest ATM is in Zugdidi which is a two hour drive from the village. The EPC Contractor has plans of negotiating a mobile ATM with the bank, so the workers will not need to travel that far to obtain cash.

The working conditions on site are not adequate. There is no toilet or hand washing facilities provided either by the EPC Contractor or the subcontractor. The subcontractor transported two containers on site that will serve as resting areas and confirmed that mobile toilets and hand washing facilities will be installed.

2.1.1.2 Occupational Health and Safety

The EPC Contractor's employees are required to attend a generic health and safety training that includes PPE use. The contents of the training were not available for review, however the signed attendance sheet was provided. PPE is provided by the EPC Contractor to all workers employed by them.

The Health and Safety Policy of the EPC Contractor is generic and does not contain any site specific elements. The EPC Contractor has forms to report incidents, accidents and near misses. There is no clear reference to categorisation of events. To date there have been no accidents, incidents or near misses.

The site manager of the EPC Contractor carries out weekly checks on the health and safety standards, PPE use and site safety of the subcontractors. They also have a meeting after each check to discuss any issues that may emerge. The health and safety manger from the head office of the EPC Contractor provides the checklist for the weekly checks. The EPC Contractor has plans to introduce random drug and alcohol testing especially of employees driving or operating machinery. There is a no alcohol policy on site.

The Owners' Engineer visits the site weekly to undertake meetings and checks of the EPC Contractor. These meetings and checks were not documented in great detail. The checks carried out by all parties are rather informal and usually only result in a verbal warning. This practice will need to change to allow for monitoring of any non-compliance with the health and safety standards determined by the Lenders, national legislation and international best practice.



Contractually both the EPC Contractor and any subcontractors are required to comply with the main Project documents of JSC Nenskra Hydro. The Contracts also contain reference to international practice and Lenders' requirements, as well as Georgian legislation.

2.1.1.3 Labour Grievance Redress Mechanism

The EPC Contractor has an informal and undocumented internal grievance mechanism. The workers who have comments, questions or complaints can approach their supervisor or site manager. The relevant manager then resolves the grievance. Based on the interview, the site manager is responsible for the internal grievances; furthermore they have plans to engage a separate manager responsible for grievance resolution. There is a generic grievance redress mechanism described in the EPC Contractor's Community Safety Plan, though the Social Manager whose responsibility it would be is not employed yet. According to the plans all environmental and social managers will be employed for the construction period starting September 2016. Based on the discussions it was not clear whether the Social Manager will be responsible for internal grievances or only for external grievances. In January due to the small number of EPC Contractor staff on site there are no grievances to report. Labour grievances should be managed by human resource staff.

The subcontractor operates in a similar manner. They have no designated role for recording grievances, neither a grievance log where complaints are systematically recorded. The workers claimed that there are no issues or complaints and confirmed that they would approach the shift or site manger to report any issues. The subcontractor also has no official grievance log or procedure for resolution.

2.1.2 Community Health, Safety and Security

The site was not secured or guarded in January, so unauthorised access to the site is not prevented. The current works only pose a threat to the community when the tractors clean the roads. The majority of the equipment is stored on the dam site area. A few of the tractors are parked in front of houses that are rented for accommodation of workers. The parking of equipment is agreed with the owner and the payment is included in the rent.

There is a generic Community Liaison Management Plan that contains elements of health, safety and security. This Plan is not site specific and not specific to the phase of construction. As part of this plan there is a procurement policy to ensure local people are employed if they are competent. The EPC Contractor confirmed that they had engaged an international consultancy company to support the development of site-specific plans based on the main Project documents provided by JSC Nenskra Hydro.

The Lenders required a dilapidation survey to ensure that there is benchmarking data on the conditions of the houses. The EPC Contractor confirmed that they are planning on surveying some of the houses near the main technical installations and Project sites. The EPC Contractor is waiting for JSC Nenskra Hydro to provide them with the framework ESMP so they can align activities to the requirements under the management plan. The EPC Contractor confirmed that it has flexibility to change the design of the Project or reconsider blasting in case it causes threats to the security of local residents in Chuberri village.



2.1.3 Overview of Land Acquisition and Resettlement Impacts and Activities

An overview of project component construction activities, impacts and compensation responsibilities as of April 2016 is presented in Table 2.3 below.

Site	Type of land acquisition	Losses	Responsible organisation/company	Compensation
Dam and reservoir site	Acquired through construction permit	Largest pasture land 2 wooden sheds with garden and utility building	Salini/JSC Nenskra	Nothing to date
Roads from Bridge No1 to first house (approximately 6km)	No official land acquisition Cleared rocks along the road	No losses due to works avoiding settlements and houses	GCC	Nothing to date
GCC temporary camp on Tita Hotel land	Agreement with owner of Tita Hotel	Pasture land temporarily unavailable due to containers	GCC	Payment according to lease agreement
Parking equipment on private land	Private agreements with house/land owners	Garden	Salini GCC	Payment according to agreement

Table 2.3: Overview of project component construction activities, impacts and compensation responsibilities

As of April 2016 (based on information obtained subsequent to the audit) the only land acquired by the Project was the dam site area that is granted via the construction permit. This area is one of the main pasturelands the villagers use and contains two wooden sheds and cultivated areas with fencing. When asked about compensation for the sheds and consultation with the owners during the January 2016 audit, the subcontractor confirmed that the owner is employed on the Project. There is an informal agreement with the owner(s) of the sheds to use them as temporary shelter and resting area. Despite the lack of compensation and acquisition process, the fact that the owner is employed on the Project suggests that the structures will be preserved and will only be demolished after the official acquisition process.

The road will be upgraded from Bridge no1 to the dam site area. The EPC Contractor confirmed that some of the road works were undertaken by the Municipality as part of their upgrade programme to make remote areas more accessible. The road works undertaken by the Municipality start just after Bridge no1 and go to Chuberri village. The road then continues on the right side of the river, while the Project road will cross Chuberri village and continue on the left side of the river. The Municipality road works do not include the upgrade of bridges. The works carried out to date include the widening to 6.5m and paving of the main road. There was no official land acquisition for these works, as the land and right of way where widening took place is owned by the state.

The road works had no impact on private land or access to the pasture areas. took place is owned by the state. The road works had no impact on private land or access to the pasture areas. The EPC Contractor stated that in January 2016 the road works only resulted in the removal of roadside stones and no trees or fences were moved. There was no blasting or removing of rocks from the mountains along the roads. The



road was not widened in areas that are populated, which suggests they could be waiting for the official land acquisition process to take place before continuing works.

The EPC Contractor has no temporary land acquisition plans. Land is currently rented from private landowners to store machinery since early 2016. The machinery is parked on the land belonging to hotels where rooms are rented for workers. No documentation was shown about the agreements with the landowners about the use of land. It is confirmed that the local people are welcoming the Project as it provides employment and the snow is cleared from the roads every day.

The only area where physical displacement is foreseen is the powerhouse area a few kilometres from Chuberri village. This area is almost impossible to access due to the lack of roads. In January 2016 photographs were taken of the houses from the other bank of the river and the engineers explained the location of the access road and the tunnel boaring machine (TBM) launching tunnel. The houses will be preserved so the residents will be able to move back after the disposal sites are reinstated and the camp is removed from the area. The powerhouse itself will pose no threat to the residents during the operational phase.

Based on the interviews with the CLOs, the two permanent residents on the powerhouse area do not want to leave their houses and the land. They have graveyards on the land and it has a significant sentimental value to them. The negotiations with these landowners were still ongoing as of May 2016 (based on information obtained subsequent to the audit). This physical displacement is the most critical aspect of the Project, as the area was originally scheduled to be clear by the end of March or the beginning of April according to the original construction schedule. As tensions with local population over the Project increased, we understand the owners of the two houses refused to participate in negotiations.

Based on updates from JSC Nenskra in May 2016, the LALRP has not been completed and there is no Entitlements Matrix or compensation package that could be offered during any kind of negotiations with these two households. The same updates confirm that evaluation processes are still ongoing so it is unclear what was discussed or offered for these households. As JSC Nenskra failed to undertake land acquisition through negotiated settlements, they approached the GoG to initiate expropriation procedures. The Lenders expressed their disapproval of this process as this might induce forced eviction complaints from the residents.

At the time of the site visit in January 2016, livelihood impacts were not significant or visible as the pasturelands are only used during the summer time. If the LALRP had been approved and implemented by April, then the livelihood impacts would have been more easily mitigated and compensated before the herding season starts. This is not the case so complaints about lost access to pasture areas as a result of early works are expected. There are no mechanisms in place to mitigate such impacts as the Project documentation is in a draft format and not approved by the Lenders.

As official land acquisition had not started as of January 2016, there was limited information available for review. The detailed resettlement audit in July 2016 will provide a more comprehensive analysis. The grievance mechanism for land acquisition and physical displacement is not yet established, so there is no grievance log. The grievance mechanism must be established alongside the approval of the LALRP. The



community protests experienced in 2016 suggests there will be a significant number of grievances lodged especially with respect to lost pastures.

2.1.4 Stakeholder Engagement

Stakeholder engagement activities started during the ESIA process in June 2015. There was a second round of consultation activities in December 2015 to discuss the findings of the supplementary studies. A draft SEP in 2015 was part of the ESIA package that was updated in December 2015 based on initial feedback from the Lenders group. The SEP was submitted again in January 2016 for further comments from the Lenders and is expected to be finalised by May/June 2016. As of April 2016 (based on information obtained subsequent to the audit) stakeholder engagement was not organised or controlled by JSC Nenskra Hydro or the EPC Contractor. All information disclosure and engagement activities were happening on an ad hoc basis.

The EPC Contractor communicates when it is approached with questions or comments from people in the village. It has no formal mechanism to log interactions with people. The EPC Contractor has wide international experience and the management of staff on site seemed competent, although the lack of documentation did not allow for the verification of information. There is a generic Community Liaison Management Plan that emphasises the need to engage with the communities. They had a Health, Safety and Environment manager with responsibility for engaging with locals. The EPC Contractor was waiting for JSC Nenskra Hydro's specific documentation on engagement activities to develop their own set of Project documents.

The draft SEP 2016 mentions posters in community centres, information boards and other ways to disclose Project information. As of January 2016 there were no posters or information boards set up to let people know about the work schedule for the early works. JSC Nenskra Hydro engaged CLOs from the valleys to serve as a communication channel with the local people. More information on the CLOs and their work can be found in the next section.

As stakeholder meetings were put on hold after December 2016 and did not focus on pre-construction works, tensions with the local populations started. Between February and May 2016 (based on information obtained subsequent to the audit) there have been numerous demonstrations and road blockades by residents of the Nenskra valley to demand more information about the Project, better mechanisms for stakeholder engagement and compensation for losses due to the Project.

Concerns were raised about safety, noise levels during the operational phase and other livelihood impacts of the Project. JSC Nenskra has not been able to fully control the situation and set up systems that allow for meaningful engagement with local people. The fact that negotiations with the two households, who are being asked to move from the powerhouse site have not started indicates a serious miscommunication and disconnect between residents and the Project. As the crucial documents that govern the management of impacts, compensation and Project implementation are not disclosed, affected people get anxious and feel threatened as the early works progress.



JSC Nenskra have made some attempts to hire staff on site to enhance communication and engagement of the local population, but there is no information on the qualifications, education and training of these people to see if they are suitable to undertake such a sensitive task. The community liaison staff include two CLOs – one for each valley –and a 'Field Social Manager'. More information about the CLOs can be found in the next section, while the terms of reference or job description for the Field Social Manager has not been shared for review. The CV was circulated in April 2016 subsequent to the early works audit and Lenders expressed their dissatisfaction with the experience of the selected candidate and requested an external social specialist to support the implementation of stakeholder engagement and resettlement activities.

2.1.5 CLOs

JSC Nenskra Hydro engaged two CLOs who started working in December 2015 and are contracted for a period of three months. There is one CLO for each valley. The names and contact numbers of the CLOs are included in the draft SEP 2016. The CLOs use their personal mobile phones and it is the personal mobile numbers that are included in the reports.

The CLOs were interviewed during the site visit to find out more about their scope of work and engagement activities to date. The CLOs helped with the organisation of consultation events in December 2015 for the supplementary studies and view themselves as the messenger between the people and JSC Nenskra. The CLOs also have regular meetings with the EPC Contractor to discuss early works and planned work schedule. The CLOs find the meetings with the EPC Contractor very useful in terms of understanding Project impacts and risks, and these meetings help them better explain the health and safety risks to the villagers.

The CLOs are not familiar with the draft SEP and, apart from being the messengers, have no clear idea of the scope of work they are required to do. They are in direct contact with the people and are easily accessible so they are usually the first to hear about complaints or grievances, yet they have neither the mandate nor the actual grievance log to record and resolve grievances. They highlighted concerns from people regarding land acquisition and physical displacement. People are worried that the unregistered land and properties will not be compensated and they also raised concerns about valuation and the compensation packages they will receive.

The CLOs are not documenting any meetings or engagement with local people. One of the CLOs offered to put together a document with notes from meetings to provide a better idea of the work that has been done since December 2015. After follow-up emails he was unable to provide this document for review.

2.1.5.1 Community Grievance Redress Mechanism

The Project community grievance redress mechanism has not been implemented by JSC Nenskra Hydro or the EPC Contractor. The SEP contains the description of the procedure and responsibilities allocated, however, there is no assigned manager for Project grievances. The grievance log has not been developed.



The EPC Contractor and the subcontractor implement an informal and undocumented grievance mechanism where the Health, Safety and Environment Manager is responsible for resolution. Some examples of grievances received by the EPC Contractor were requested but it stated that it was mainly comments and people asking for jobs.

The CLOs were also asked about grievances and said that there is one house owner in the Chuberri village who complained to them about cracks in his house caused by construction traffic. The team asked the CLOs if they reported it to anybody but the answer was negative. The CLOs said that people had no complaints about the EPC Contractor or the works and they are quite welcoming as they expect employment and other benefits from the Project.



3 Conclusions and Corrective Actions

3.1 Overview

This chapter provides Mott MacDonald's EHSS relevant conclusions and recommendations and these are contained in the CAP in Table 3.2 where a number of corrective actions are set out for JSC Nenskra Hydro and the EPC Contractor to progress. In this regard it is noted that, while many of the corrective actions need to be completed by the EPC Contractor, the responsibility for ensuring overall compliance is with JSC Nenskra Hydro.

Estimated costs have been provided on the basis of the information available at the time of writing; however these are conservative estimates for budget purposes and the actual costs associated with some measures may change.

During the construction phase of the Project Mott MacDonald estimates an overall budget for environmental and social activities of 1,450,000 USD. Table 3.1 below distributes this sum over key EHSS requirements for both JSC Nenskra Hydro and the EPC Contractor.

Activity	JSC Nenskra Hydro (USD)	EPC Contractor (USD)
Environmental and Social Management System development and maintenance	50,000	100,000 ⁵
Development of Environmental and Social Management Plans and Procedures	-	100,000 ⁵
Permits and Licences	25,000	25,000 ⁵
Employee Salaries for additional EHSS Staff (USD 50,00 pa/employee over four years)	200,000	600,000 ⁵
Pollution Prevention Equipment and Controls	-	150,000 ⁵
Third Party Environmental Monitoring (assumed six monthly over four years at USD 25,000 per monitoring exercise)		200,000
TOTAL E&S Action Implementation Budget	275,000	1,175,000

Table 3.1: Estimated Budget Provision (USD) for Key Actions

Source: Mott MacDonald

⁵ Note: It is assumed that the costs associated with these activities have been included within the current EPC Contract budget and therefore are not additional costs.



3.2 Corrective Actions

Table 3.2:EHSS CAP for the Project

Table							
#	Торіс	Description of Action	Responsibility	KPI	Timeframe	Indicative Cost Estimate (USD)	Status
ADB S	Safeguard Requirement	1: Environment, Section D, Page 30 – 40					
Sectio	n D.2: Environmental Pla	nning and Management					
1.1	n D.2: Environmental Pla Environmental Management System and Management Plans	 Prepare all construction management plans and procedures in line with the SLR Consulting Environmental and Social Management Plan (ESMP) and Environmental Permit conditions. Where mitigation measures outlined within the SLR ESMP are not required on the ground then a marked up ESMP must be submitted to JSC Nenskra and the Lenders with justification included for any deviations. Any deviations would be subject to approval. This process would be ongoing throughout construction. The ESMS and associated management plans are to be site and task specific and include the following elements: To include a list of all potential permits and licences required in addition to those obtained to date. Reference and align with the updated ISO 14001:2015 standard. Note - EHSS management systems, 	JSC Nenskra Hydro EPC	Submit all management plans and procedures to MML	One month prior to the roadworks construction activities commencing in August 2016	USD 250,000	Open
		plans, policies and procedures will need to be continually reviewed and checked for relevance as the construction phase advances.					



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.2	Environmental Management System and Management Plans	Additional plans required during construction that should be developed as a priority to manage current Project activity include but are not limited to: • Waste Management Plan • Traffic Management Plan • Hazardous Substance Handling and	EPC	Submit all management plans and procedures to MML	One month prior to the roadworks construction activities commencing in August 2016	Included in above budget	Open
1.3	Environmental Permit and Licences	Storage Management Plan Obtain all relevant permits and licences required for the works in advance of undertaking related activities, including Tree Removal, Spoil Storage (temporary and permanent), water abstraction and water discharge.	JSC Nenskra Hydro EPC	Submit copies of permits and licences to K Water and MML once obtained.	Ongoing	USD 50,000	Open
		Any Georgian standards included within the permits must be researched at the pre-construction stage and mitigation on site designed to ensure all likely permit requirements can be complied with. This information should be captured in a detailed preliminary draft of the permit register and the technical team must be informed of likely requirements at the design stage.					
1.4	EPC Contractor site EHS personnel	Hire additional environmentally qualified staff. Note: It is expected that one dedicated EHSS representative is to be present on each distinct construction site on a full time basis.	EPC	CV's of new staff members submitted to MML for review.	Two months prior to the main construction activities start in September 2016	USD 600,000	Open



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.5	JSC Nenskra Hydro EHS support staff	Hire additional environmental and socially qualified staff for site audits and Land Acquisition and Resettlement Plan (LARP) implementation.	JSC Nenskra Hydro	Contracts for additional EHS staff to be submitted to MML for review.	One month prior to the main construction activities start in	USD 200,000	Open
		Note: It is expected that one dedicated EHSS representative is to be present on each distinct construction site on a full time basis.			September 2016		
Section	D.3: Information Disclos	sure					
1.6	SEP	Adopt a stakeholder engagement plan specific to the project and the site. This plan should detail the identified stakeholders, means and frequency of communication, information to be shared or discussed and responsibilities. This should be specific to the different stages of construction. All actions under the SEP must be documented.	JSC Nenskra Hydro EPC	SEP and documentation of engagement activities	Within the next 30 days then ongoing through the Project life cycle	Included in ESMS / ESMP development and maintenance budget	Open
Section	D.4: Consultation and F	Participation					
1.7	Stakeholder analysis	Identify all relevant and interested stakeholders who need to be engaged and informed about the Project. This analysis should extend to residents not only in the valley but also along the main routes and access areas.	JSC Nenskra Hydro EPC	Stakeholder Engagement Plan (SEP)	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open
1.8	CLO	Provide training for the CLOs on the role they play in the Project, responsibilities they have and methods to engage with the locals. Provide clear terms of reference for them with a defined scope of work. Familiarise them with the Project SEP and ensure they use a company phone number instead of their private numbers.	JSC Nenskra Hydro	Training documents Terms of Reference for CLOs	Within the next 30 days	Responsibility of EHSS designated personnel, included in salary budget	Open



#	Торіс	Description of Action	Responsibility	KPI	Timeframe	Indicative Cost Estimate (USD)	Status
1.9	Grievance mechanism	Set up and implement a grievance mechanism in line with the SEP. Record all grievances in a grievance log indicating the date, actions, contact details, responsibilities and outcome of the grievance.	JSC Nenskra Hydro EPC	Grievance mechanism disclosed Grievance log	Within the next 30 days then ongoing through the Project life cycle	Included in ESMS / ESMP development and maintenance budget	Open
Sectio	n D.6: Monitoring and Re	eporting					
1.10	Monitoring and reporting	Develop a checklist which incorporates ESMP parameters and general good housekeeping site checks.	JSC Nenskra Hydro EPC	Drafted site walkover checklist.	One week prior to the roadworks construction activities start in August 2016	Responsibility of EHSS designated personnel, included in salary budget	Open
1.11	Monitoring and reporting	Record and maintain a registry of all daily and weekly site inspections and	EPC	Site inspection logs maintained at site with	Commence as soon as possible	Responsibility of EHSS designated	Open
		monitoring results in line with ESMP.		completed checklists.	and then ongoing throughout the construction phase	personnel, included in salary budget	
1.12	Monitoring and reporting	Implement monthly Progress Reports once approved by EPC Contractor head office and K Water. This is to include estimated GHG emissions.	JSC Nenskra Hydro EPC	Monthly EHSS Progress Reports to be sent to MML for review	First report to be produced by July 2016 and then ongoing throughout the construction phase	Responsibility of EHSS designated personnel, included in salary budget	Open
1.13	Monitoring and reporting	Implement weekly environmental meetings between the client, owners engineer and EPC Contractor environmental managers to monitor compliance and issues arising in relation to the ESMP and to share relevant environmental information, including findings of any environmental monitoring or surveys as may inform on site mitigation and any project non- conformances.	JSC Nenskra Hydro EPC	Minutes of meeting are to be used within the monthly EHSS Progress Reports, which are to be sent to MML for review.	First report to be produced by July 2016 and then ongoing throughout the construction phase	Responsibility of EHSS designated personnel, included in salary budget	Open



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.14	Pollution prevention - monitoring	Undertake all environmental monitoring as defined within the EMP and SLR Consulting ESMP. This includes third party monitoring for: • Dust • Water Discharges • Noise Monitoring results must be reviewed and shared with relevant parties. Additional mitigation can then be identified, agreed and implemented efficiently where monitoring results identify issues.	JSC Nenskra Hydro EPC	Results of monitoring to be included within the Monthly EHSS Progress Reports to be sent to MML for review.	Commence once roadworks construction starts in August 2016	USD 200,000 for third party monitoring	Open
Section	n D.7: Unanticipated Envi	ironmental Impacts					
1.15	Emergency Preparedness and Response Plan	Develop a site specific Emergency Preparedness and Response Plan in consultation with representatives of local emergency services (ambulance, fire, and police). Ensure that the workers are familiar with the contents of the Plan and are aware of actions that need to be taken in case of emergency situations.	EPC JSC Nenskra Hydro	Emergency Preparedness and Response Plan	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open
Section	n D.9: Pollution Preventio	on and Abatement					
1.16	Re-fuelling	 Refuelling procedure to be developed and implemented, to include the following: Dedicated site operative to undertake all refuelling on site. Refuelling to be undertaken within a dedicated area/s only which is/ are to be located on hardstanding and covered to reduce water ingress. Spill response equipment is to be situated within the refuelling area and close to all fuel tankers. Checks undertaken by the site inspection logs 	EPC	Refuelling procedure to be issued to MML for review.	Commence as soon as possible and then ongoing throughout the construction phase	Included in ESMS / ESMP development and maintenance budget	Open



#	Торіс	Description of Action	Responsibility	KPI	Timeframe	Indicative Cost	Status
	Горіс	Description of Action	Responsibility		Hillenallie	Estimate (USD)	Status
1.17	Pollution prevention Oil containment	All fuel and oil filled containers or plant are to be stored on a drip dray or suitable bund.	EPC	Inclusion in site inspection logs to be reviewed by MML.	Commence as soon as possible and then ongoing throughout the construction phase	Included in Pollution Prevention Equipment and Controls budget	Open
1.18	Pollution prevention Water emissions	Confirm location and design of settlement ponds in line with SLR Consulting ESMP and GIIP.	JSC Nenskra Hydro EPC	Design of settlement ponds to be issued to MML.	One month prior to construction of settlement ponds	Included in Pollution Prevention Equipment and Controls budget	Open
1.19	Pollution prevention Water emissions	Develop and implement a site specific procedure and system for the pumping and discharge of water to ground or waterbodies.	EPC	Submit all management plans and procedures to MML.	One month prior to the roadworks construction activities start in August 2016	Included in ESMS / ESMP development and maintenance budget	Open
1.20	Pollution prevention Waste	Develop and implement a WMP for the EPC roadworks and main dam works.	EPC	Submit all management plans and procedures to MML.	One month prior to the roadworks	Included in ESMS / ESMP development	Open
				Training logs for WMP implementation to be included in Monthly EHSS Progress Reports.	construction activities start in August 2016	and maintenance budget	
1.21	Pollution prevention Waste	Issue WMP to the Ministry of Environment and Natural Resources Protection.	EPC	Evidence of approval from Ministry of Environment and Natural Resources Protection to be issued to MML.	One month prior to the roadworks construction activities start in August 2016	Responsibility of EHSS designated personnel, included in salary budget	Open
1.22	Pollution prevention Waste	Obtain quotes and hire suitable waste contractors prior to the commencement of the roadworks to collect and dispose of waste, including hazardous, non- hazardous and inert wastes.	EPC	Permits and licences for waste carriers and disposal sites to be issued to MML.	One month prior to the roadworks construction activities start in August 2016	Responsibility of EHSS designated personnel, included in salary budget.	Open
						Costs associated with waste contractor services included in Pollution Prevention Equipment and Controls budget	



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.23	Pollution prevention Waste	Develop waste transfer forms to record all waste removed from site. These are to be kept on site and used to inform the WMP and waste register.	EPC	Issue waste transfer form template to MML for review.	One month prior to the roadworks construction activities start in August 2016	Responsibility of EHSS designated personnel, included in salary budget	Open
1.24	Pollution prevention Waste	Initiate registry of all waste transfers, waste generation, handling and ultimate disposal. Waste transfer and consignment notes for all waste transfers from site are to be held on file.	EPC	Include waste register and permit information within the Monthly EHSS Progress Report to be issued to MML for review.	Commence as soon as possible and then ongoing throughout the construction phase	Responsibility of EHSS designated personnel, included in salary budget	Open
1.25	Pollution prevention Waste	Further opportunities for reuse of some of the waste on site or by local communities are to be investigated prior to disposing to landfill and recording of these activities. Reports are to be submitted to JSC Nenskra Hydro for review.	EPC	Report to be sent to MML.	One month prior to the roadworks construction activities start in August 2016	Included in Pollution Prevention Equipment and Controls budget	Open
1.26	Pollution prevention Materials handling and storage	Appropriate materials storage areas should be provided for the Project. The size and location of these areas will need to be based on the maximum volume of storage that will be required at each site at the peak period of construction for that site. The space for the storage area will need to be taken into account in determining the area of land required to be purchased and the storage area will need to be carefully planned into the layout of each construction site.	JSC Nenskra Hydro EPC	Material storage plan to be sent to MML.	One month prior to the roadworks construction activities start in August 2016	Should be included within EPC Contractor Project detailed design budget	Open



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.27	Pollution prevention Materials handling and storage	Oil/chemicals should be stored in tanks or drums located in bunded areas on impermeable surfaces, which can hold 110% of the capacity of the largest tank or drum or, for multiple drum storage, 25% of the total volume of material stored.	EPC	Documented within a hazardous Materials Management Plan to be issued to MML for review.	One month prior to the roadworks construction activities start in August 2016	Included in Pollution Prevention Equipment and Controls budget	Open
		Materials storage facility is to be:					
		 Located away from sensitive receptors 					
		 Not at risk from theft/vandalism 					
		 Protected from the elements 					
		 Easily accessible 					
		 Well ventilated 					
		 Bunded and with spill kits provided close by 					
1.28	Pollution prevention Materials handling and storage	All MSDS's are to be present on site at the point of storage or works.	EPC	Photographic evidence to be issued to MML that the MSDS are suitably located.	Commence as soon as possible then ongoing throughout the construction phase	Included within Pollution Prevention Equipment and Controls budget	Open
1.29	Pollution prevention Materials handling and storage	Produce an inventory of hazardous materials on site (including volumes).	EPC	Inventory developed and issued to MML.	Commence as soon as possible then ongoing throughout the construction phase	Responsibility of EHSS designated personnel, included in salary budget	Open
Sectior	D.10: Health and Safet	у					
1.30	Workers training	Provide HSE and specific training for all workers, including waste management, hazardous materials management and spill response.	EPC	Training log to be included within Monthly EHSS Progress Reports which are to be issued to MML for review.	Within the next 30 days and ongoing	Responsibility of EHSS designated personnel, included in salary budget	Open
1.31	Workers communication	Record all toolbox talks and site briefings.	EPC	Toolbox talk and site briefing register.	Within the next 30 days and ongoing	Responsibility of EHSS designated personnel, included in salary budget	Open



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.32	Workers communication	Information on toolbox talks and site briefings given to the site to be provided within the Monthly Progress Meeting, including number of attendees and the topic.	JSC Nenskra Hydro EPC	Statistics to be presented within the Monthly EHSS Progress Reports which are to be issued to MML for review.	First report to be produced by June 2016 and then ongoing throughout the construction phase	Responsibility of EHSS designated personnel, included in salary budget	Open
1.33	Health and safety	Document the weekly health and safety checks and findings and relevant actions. Document any health and safety non- conformance noticed or reported by workers.	EPC JSC Nenskra Hydro	Weekly health and safety report	Within the next 30 days then ongoing then ongoing through the main construction phase	Included in ESMS / ESMP development and maintenance budget	Open
1.34	Health and safety	Document PPE provided for the workers when they start employment and make note of the date when the equipment needs to be changed. This should be specific to the tasks the worker needs to perform.	EPC	Itemised list of PPE	Within the next 30 days then ongoing then ongoing through the main construction phase	Included in ESMS / ESMP development and maintenance budget	Open
1.35	Health and Safety equipment	Ensure that there is a first aid kit and trained first aiders present on site at all times.	EPC	First aid kits and first aider on site	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open
1.36	Health and Safety equipment	Ensure that there is firefighting equipment on site and at all temporary stations at all times.	EPC	Firefighting equipment on site	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open
1.37	Housekeeping on site	Increase and improve the current level of housekeeping on site. Ensure that all equipment is secured and stored according to industry best practice.	EPC	Secured equipment	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.38	Working conditions	Set up and maintain a resting area on site where workers can warm up and take refreshment. Make sure this resting area includes bathrooms and hand washing facilities as well. Separate facilities for male and female workers should be provided. Ensure that appropriate measures are taken to ensure acceptable working conditions appropriate to different seasons. This means that during the winter period this resting area should be heated and during the summer period it should be cooled. Insect repellents and screens to prevent flies and mosquitoes entering the resting area should be installed. Adequate drinking water should be provided on site.	EPC JSC Nenskra Hydro	Resting areas functioning on site	Within the next 30 days then ongoing then ongoing through the main construction phase	Included in ESMS / ESMP development and maintenance budget	Open
1.39	Labour management	Develop a Code of Conduct for workers living in the camps.	EPC	Code of Conduct delivered	At least a month before opening of construction camps	Included in ESMS / ESMP development and maintenance budget	Open
1.40	Labour management	Develop Workers Management Plan or Labour Management Plan. The Plan will detail the roles and responsibilities on site for the management of the labour force, outline Project standards, commitments and operational procedures. This Plan needs to contain recruitment and staffing needs for stages of construction, dates for the start of recruitment, specific positions and jobs that will be required and processes for retrenchment. Training requirements for the different positions and staff should also be specified here. The Labour and skill census of the population should feed into the planning of labour to enhance local employment opportunities.	EPC	Labour Management Plan delivered	As soon as possible	Included in ESMS/ESMP development and management budget	



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
1.41	Labour records	Ensure that each worker has a separate file that contains all the relevant documentation including the CV, application form, recruitment checks, employment contract, timesheets, payroll info etc. This will make it easier to manage the large number of workers on site.	EPC	Organised worker files Signed contracts	Within the next 30 days then ongoing then ongoing through the main construction phase	Included in ESMS / ESMP development and maintenance budget	Open
1.42	Training records	Document all training received by the employees in a separate training record form that contains information on the name of the training received, the date it was completed, who provided the training and the list and signature of participants. This training sheet should be added to the worker documentation with the date of expiration or renewal.	EPC	Signed training sheets added to worker files	Within the next 30 days then ongoing then ongoing through the main construction phase	Included in ESMS / ESMP development and maintenance budget	Open
1.43	Child Labour and Forced Labour	A detailed labour audit should be undertaken looking at practices of the EPC and its subcontractors in terms of employment conditions. These audits to undertake a child labour and forced labour assessment.	JSC Nenskra	Labour audits with child labour and forced labour components	Periodically at least every 3 months	Included in ESMA/ESMP development and maintenance budget	
1.44	Internal grievance mechanism	Develop and implement a formal grievance mechanism for the employees. Ensure that there are personnel who can officially log and investigate grievances and complaints submitted by the workers.	JSC Nenskra Hydro EPC	Grievance mechanism produced Labour grievance form Internal grievance log	Within the next 30 days then ongoing	Included in ESMS / ESMP development and maintenance budget	Open
1.45	Supply chain	Undertake a supply chain assessment protecting against the use of child and forced labour.	EPC	Supply chain assessment	At least a month before the start of the main construction work Then annual assessment	USD 10,000	Open
1.46	Site security	Secure the site and the equipment on site. As of January 2016 there was no gate or other natural barrier to prevent unauthorised access to the site.	JSC Nenskra Hydro EPC	Site security plan	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	Open



Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
Pollution prevention Site establishment	Establish the site compound and installation areas in line with SLR ESMP and GIIP.	EPC	K Water to review design prepared by contracted architects.	One month prior to the roadworks construction	Should be included within EPC Contractor Project	Open
			Approved design to be provided to MML.	August 2016	budget	
Security personnel on site	Require training transcripts and frequent drug and alcohol tests for all personnel carrying weapons although it is recommended that security staff do not carry firearms.	EPC JSC Nenskra Hydro	Training and monitoring records	Prior to start of employment Continuous ad hoc monitoring, alcohol and drug	Included in ESMS /ESMP development and maintenance budget	Open
	Develop monitoring mechanisms to ensure that security personnel comply with key Lender requirements.			tests		
	Security personnel to adhere to UN Voluntary Principles of Security and Human Rights.					
Community health and safety	Develop site specific Community Health, Safety and Security Management Procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases.	EPC JSC Nenskra Hydro	Community Health, Safety and Security Management Procedures	Within the next 60 days, latest by July 2016	Included in ESMS / ESMP development and maintenance budget	Open
D.11: Physical Cultural	Resources					
Chance finds procedure	Develop a site specific chance finds procedure detailing the steps and responsibilities in case of discovery.	JSC Nenskra Hydro EPC	Chance finds procedure and management plan	Within the next 60 days	Included in ESMS / ESMP development and maintenance budget	Open
	Pollution prevention Site establishment Security personnel on site Community health and safety D.11: Physical Cultural Chance finds	Pollution prevention Site establishmentEstablish the site compound and installation areas in line with SLR ESMP and GIIP.Security personnel on siteRequire training transcripts and frequent drug and alcohol tests for all personnel carrying weapons although it is recommended that security staff do not carry firearms. Develop monitoring mechanisms to ensure that security personnel comply with key Lender requirements. Security personnel to adhere to UN Voluntary Principles of Security and Human Rights.Community health and safetyDevelop site specific Community Health, Safety and Security Management Procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases.D.11: Physical Cultural ResourcesDevelop a site specific chance finds procedure	Pollution prevention Site establishmentEstablish the site compound and installation areas in line with SLR ESMP and GIIP.EPCSecurity personnel on siteRequire training transcripts and frequent drug and alcohol tests for all personnel carrying weapons although it is recommended that security staff do not carry firearms. Develop monitoring mechanisms to ensure that security personnel comply with key Lender requirements. Security personnel to adhere to UN Voluntary Principles of Security and Human Rights.EPC JSC Nenskra HydroCommunity health and safetyDevelop site specific Community Health, Safety and Security Management Procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases.EPC JSC Nenskra HydroD.11: Physical Cultural ResourcesDevelop a site specific chance finds procedure detailing the steps andJSC Nenskra Hydro	Pollution prevention Site establishmentEstablish the site compound and installation areas in line with SLR ESMP and GIIP.EPCK Water to review design prepared by contracted architects. Approved design to be provided to MML.Security personnel on siteRequire training transcripts and frequent drug and alcohol tests for all personnel 	Pollution prevention Site establishmentEstablish the site compound and installation areas in line with SLR ESMP and GIP.EPCK Water to review design prepared by contracted architects. Approved design to be provided to MML.One month prior to the roadworks construction activities start in August 2016Security personnel on siteRequire training transcripts and frequent drug and alcohol tests for all personnel carrying weapons although it is recommended that security staff do not carry firearms. Develop monitoring mechanisms to ensure that security personnel to adhere to UN Voluntary Principles of Security and Human Rights.EPC JSC Nenskra HydroTraining and monitoring recordsPrior to start of employment Continuous ad hoc monitoring, alcohol and drug testsCommunity health and safetyDevelop site specific Community Health, Safety and Security Management Procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases.JSC Nenskra HydroCommunity Health, Safety and Security Management ProceduresWithin the next 60 days, latest by July 2016D11: Physical Cultural ResourcesDevelop a site specific chance finds procedure detaining the steps and procedure detaining the steps and procedure and mitigation of community exposure to diseases.JSC Nenskra HydroChance finds procedure and management planWithin the next 60 days	Pollution prevention Site establishment Establish the site compound and installation areas in line with SLR ESMP and GIIP. EPC K Water to review design prepared by contracted architects. Approved design to be provided to MML. One month prior to the roadworks. Construction activities start in August 2016 Should be included within EPC Contractor Project detailed design budget Security personnel on site Require training transcripts and frequent drug and alcohol tests for all personnel carry firearms. EPC JSC Nenskra Hydro Training and monitoring records Prior to start of employment Continuous ad hoc monitoring, alcohol and drug tests Included in ESMS //ESMP development and maintenance budget Community health and safety Develop monitoring mechanisms to ensure that security personnel to athere to UN Voluntary Principles of Security and Human Rights. EPC JSC Nenskra Hydro Community Health, Safety and Security Management Procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases. Community Health, Safety and Security Management procedures. This should contain provisions to manage the seasonal crossing of herders and herds. This Plan should include the assessment and mitigation of community exposure to diseases. JSC Nenskra Hydro Chance finds procedure and management Plan Within the next 60 days Included in ESMS / ESMP development and maintenance budget



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
2.1	Compensation, assistance and benefits for affected people	Adopt the Land Acquisition and Livelihood Restoration Plan developed by SLR Consulting and ensure all land acquisition activities are undertaken in line with the plan. This LALRP should be compliant with Lenders' policies and contain an Entitlements Matrix detailing compensation measures. These measures need to cover people affected by either physical or economic displacement. The LALRP is to contain livelihood restoration elements focusing on lost pasture land and timing for implementation.	JSC Nenskra Hydro	Adopted LALRP	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	
2.2	Negotiated land agreements	Document all activities including, but not limited to, agreements with land owners and users with respect to valuation, date of moving/acquiring land, and compensation received.	JSC Nenskra Hydro	Land acquisition documents, reports	Within the next 30 days	Included in ESMS / ESMP development and maintenance budget	
2.3	Temporary acquisition procedures	Develop procedures to acquire land temporarily. The principles, compensation and valuation should be in line with the LALRP. All temporary land acquisition activities need to be documented the same way as for permanent land acquisition.	EPC	Land take documents	At least a month prior to the start of main construction phase	Included in ESMS / ESMP development and maintenance budget	
2.4	Consultations and participation	Engage in meaningful consultation activities with the affected people to inform them about land acquisition and livelihoods impacts. Ensure that their feedback is integrated in Project and work design. Prepare brochures and other information material if needed to explain the resettlement/land acquisition process, entitlements and grievance mechanism.	EPC JSC Nenskra Hydro	Documented stakeholder engagement activities related to land acquisition and livelihoods	At least a month prior to land acquisition	Included in ESMS / ESMP development and maintenance budget	
2.5	Consultation and participation	The documentation of engagement activities need to reflect that the consultations are inclusive and transparent. The ideas shared by the communities need to feed into the different decisions made about access	JSC Nenskra Hydro EPC	Documentation of engagement activities	After engagement activity or consultation	Included in ESMS / ESMP development and maintenance budget	



#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
		routes, timing of works, etc.					
2.6	Grievance mechanism	Set up and implement a grievance mechanism for people affected by physical or economic displacement. This grievance mechanism should be set up under the LALRP. The grievances for resettlement should be listed in a specific section of the grievance log.	JSC Nenskra Hydro EPC	Grievance log, documented grievance procedure	At least a month prior to land acquisition	Included in ESMS / ESMP development and maintenance budget	
2.7	Grievance mechanism	Set up and implement a functioning public grievance mechanism. This mechanism needs to be easily available to people affected by resettlement and appropriate response mechanisms need to be developed to address comments, questions and grievances.	JSC Nenskra Hydro EPC	Grievance mechanism publicised Grievance log Assigned personnel to manage grievances	As soon as possible	Included in ESMS /ESMP development and maintenance budget	
2.8	Social Impact Assessment	Finalise the supplementary social impact assessment. The supplementary impact assessment should cover all temporary and permanent land acquisition and livelihood impacts, as well as an alternative pasture analysis mapping out available land that can substitute permanently and temporarily lost pasture areas.	JSC Nenskra Hydro	Finalised supplementary social impact assessment	As soon as possible.	Included in ESMS/ESMP development and maintenance budget	
2.9	Monitoring of resettlement activities	JSC Nenskra Hydro needs to appoint personnel to monitor resettlement and livelihood restoration activities on a daily basis on site. Weekly or monthly monitoring reports should be prepared and shared with the Lenders to describe the activities undertaken including any formal and informal engagement activities.	JSC Nenskra Hydro	Weekly or monthly monitoring reports Social Manager supervising resettlement and livelihood restoration activities	As soon as possible	Included in ESMS/ESMP development and maintenance budget	

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#	Торіс	Description of Action	Responsibility	КРІ	Timeframe	Indicative Cost Estimate (USD)	Status
3.1	Information disclosure	Disclose Project information. Document any activities where information about the Project is disclosed. Record the method, time, place and information that is disclosed.	JSC Nenskra Hydro EPC	Leaflets, posters, information boards Stakeholder log Information disclosure strategy in Stakeholder Engagement Plan	Within the next 30 days then ongoing through the construction phase	Included in ESMS / ESMP development and maintenance budget USD 2000 for printing and preparation of documents	



3.3 Conclusions

At the time of the site visit in January 2016, EHSS management on site was at a reasonable standard considering the early stage of construction works. JSC Nenskra Hydro and the EPC Contractor had produced an initial EMP which is a good starting point and were working to develop all required EHSS management plans and procedures. These need to be prepared as a priority and in advance of relevant construction activities commencing.

The EPC Contractor had engaged an international consultancy company to develop site-specific management plans based on the main Project Management Plans developed by JSC Nenskra Hydro. This is expected to improve the quality of the plans and contribute to improved impact management.

The EPC Contractor is required to employ additional EHSS staff, including a social specialist to oversee implementation of the H&S and Social issues on site. We understand that as of 01 June 2016 the recruitment process had commenced. It has also been highlighted that some additional environmental expertise may be required on site to assist JSC Nenskra Hydro.

The site visit identified a number of high risk items with regards to waste management, pollution prevention, physical displacement and land acquisition, and working conditions that should be rectified as soon as possible. We have also identified a number of other areas for improvement in Table 2.2 above and these are presented in the form of a CAP in Table 3.2.



Appendices

Appendix A.	Photographs	56
Appendix B.	Documentation List	63



Appendix A. Photographs

Figure A.1: Kaishi Bridge



Source: Mott MacDonald

Figure A.3: New Roadway outside of Chuberi Village



Source: Mott MacDonald

Figure A.2: Bridge N2



Source: Mott MacDonald

Figure A.4: EPC Contractor Temporary Construction Offices – not in use at time of site visit



Source: Mott MacDonald



Figure A.5: Welt3 Geo-Technical Site Investigation



Source: Mott MacDonald

Area



Figure A.7: Georgian Construction Company Storage

Source: Mott MacDonald

Figure A.6: Georgian Construction Company Hazardous Waste Bin located in storage area



Source: Mott MacDonald

Figure A.8: Diesel Tanker



Source: Mott MacDonald





Source: Mott MacDonald

Figure A.11: Diesel Containers



Source: Mott MacDonald

Figure A.10: Absorbent Material



Source: Mott MacDonald

Figure A.12: Welt3 Storage Area



Source: Mott MacDonald



Figure A.13: Diesel containing equipment



Source: Mott MacDonald

Figure A.15: Houses on the powerhouse area



Source: Mott MacDonald

Figure A.14: Oily Waste



Source: Mott MacDonald

Figure A.16:	EPC Contractor's	organisational	chart for
early works			



Source: Mott MacDonald



Figure A.17: EPC Contractor's organisational chart for main construction period



Source: Mott MacDonald





Source: Mott MacDonald

Figure A.18: Storage containers on dam site area



Source: Mott MacDonald





Source: Mott MacDonald



Figure A.21: Wooden shed on the dam site area with machinery parked nearby



Source: Mott MacDonald

Figure A.22: Wooden shed on dam site area



Source: Mott MacDonald



Source: Mott MacDonald

Figure A.23: Dam site area from the distance with the two Figure A.24: The subcontractor's empty container on site



Source: Mott MacDonald



Figure A.25: Sample time sheet of random employee



Source: Mott MacDonald

Figure A.26: Road signs along the main road to the dam site area



Source: Mott MacDonald



Appendix B. Documentation List

Table B.1: Documentation List

Document Name	Date
Conditions required to mitigate the Environmental Impact of the Project – Letter to Salini from Stucky	16 October 2016
Construction of new and rehabilitation of existing access roads for "Construction of Nenskra Hydropower Plant" project Svaneti, Georgia Community Liaison Management Plan	January 2016
Construction of new and rehabilitation of existing access roads for "Construction of Nenskra Hydropower Plant" project Svaneti, Georgia Environmental Management Plan	January 2016
Construction of new and rehabilitation of existing access roads for "Construction of Nenskra Hydropower Plant" project Svaneti, Georgia Health and Safety Plan	January 2016
Near Miss/ Incident/ Accident Report Template	-
Risk Assessment for Geo-Technical Works	-
HSE Meeting/ Training Log	November 2015

Source: Salini