



**KYRGYZ REPUBLIC**  
**COMMUNITY DEVELOPMENT AND INVESTMENT AGENCY**

**SUSTAINABLE RURAL WATER SUPPLY AND SANITATION  
DEVELOPMENT PROJECT**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

**Rehabilitation of water supply system**  
**Tolok subproject**

**November 2017**

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# 1. INTRODUCTION. DESCRIPTION OF THE PROJECT AREA, WATER SUPPLY SYSTEM.

## Introduction

The objective of Sustainable Rural Water Supply and Sanitation Development Project (SRWSSDP)<sup>1</sup> is to improve access and quality of water supply and sanitation services in the Participating Rural Communities; and to strengthen capacity of the Recipient's institutions in the water supply and sanitation sector.

An Environmental and Social Management Framework (ESMF) for the project consistent with Environmental Assessment (OP 4.01) requirements was prepared and found satisfactory by the World Bank. The ESMF public consultations were held on February 11, and June 23, 2016 in Bishkek and February 16, June 24 2016, in Osh –including participants from each target rural community. The final ESMF documents in both Russian and English languages were disclosed in country and on the Bank Infoshop on July 4, 2016 and July 6, 2016 respectively. Each activity to be financed under the project will be reviewed for safeguards risks in line with OP4.01, and must obtain the clearances required by Kyrgyz national regulations.

The ESMF covers procedures and mechanisms that will be triggered by the Project to comply with the World Bank Policy 4.01 Environmental Assessment<sup>2</sup>, legislation and normative and legal acts of the Kyrgyz Republic governing preparation and implementation of environmental protection requirements.

The present Environmental and Social Management Plan (ESMP) outlines environmental impacts and mitigation measures related to the rehabilitation of water supply investments in Kyrgyz-Ata subproject. .

ESMP activities will be included in bidding and contract documents as part of both construction and technical supervision phases.

## Description of the project area

The Tolok Subproject includes Tolok village of the Tulek Aiyl Okmotu of the Moskovsky Rayon of the Chui Oblast. The village is located 31 km to the north from the Bishkek – Kara-Balta highway. The distance from the rayon center is 38km and from Bishkek City and the oblast center - 78km. There are 230 households with total population of 1,280 people in the village. The number of cattle is 1,238, small cattle - 4,586, horses - 268.

The following municipal facilities are located in the village: secondary school for 198 pupils; kindergarten; village club; medical-and-obstetric center (FAP); public bathhouse; Aiyl Okmotu administrative building. Water supply is currently managed by CDWUU “Jaichibek-Suu”.

Moscow region is located in the western part of the region and is limited: from the north - the state border with the Republic of Kazakhstan; from the west - the territory of Zhayilsky district; from the south - the watershed of the Kyrgyz ridge; from the east - the territory of the Sokuluk district.

Absolute altitude marks increase from the northern boundary of the region to the southern from 520 m to 1200-1260 m in the foothills and up to 4,200 m in the ridge part of the Kyrgyz ridge.

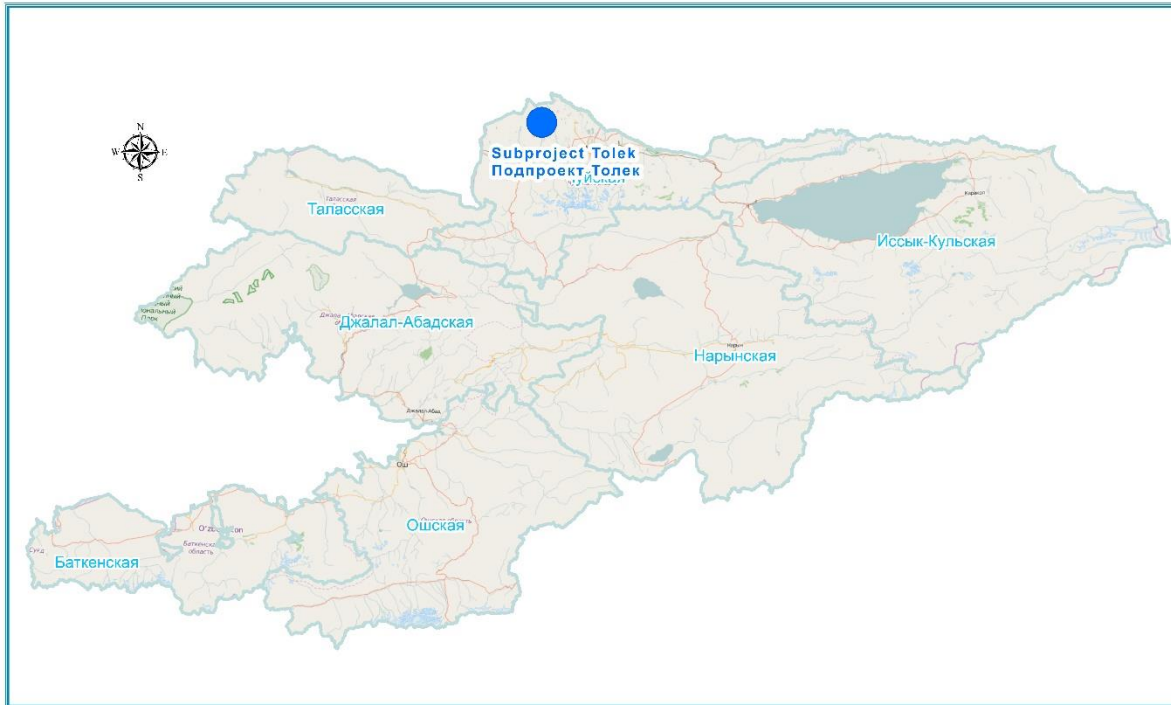
The climate of the Moscow region is characterized by the main indicators inherent in the western part of the Chui oblast. The climate is continental with dry hot summers and moderately cold winters.

Absolute maximum of temperature	+42°C
Specified temperature of the coldest five-day period	-23°C

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<sup>1</sup> In accordance with the proposal of ARIS and Department of Water Supply and Sanitation (DWSS) the project name was changed from RWSSP-3 (Third Rural water supply and sanitation project) on SRWSSDP (Sustainable Rural Water Supply and Sanitation Development Project)

Average temperature of the coldest period	-10.6°C
Average relative air humidity at 3pm: of the coldest month of year	63%
of the hottest month of year	31%
Annual precipitation	471mm



## Water supply system

Nowadays, the Tolok village has a centralized/piped water supply system. It is known that the water supply has been constructed in a number of stages: in 50<sup>th</sup>; in years of 1971-1982; and in 1986-1987. At the time of the study, the source of the water supply was the only borehole 310m in depth drilled in 1978 and located within the water intake site.

The territory of the existing water intake has a sanitary protection zone, which has a fence made of reinforced concrete slabs with a height of 2.0m and has an organized entrance.

Within the water intake site there are:

1. A borehole equipped with a submersible ECV 10-65-65 pump;
2. Two water storage tanks in the embankment with a cumulative capacity of 2 x 500 m<sup>3</sup>;
3. The building of the second-lift pump station. Also, in the basement section of the engine room there is a water sterilization plant (OB-50), which due to the failure of UV lamps, is not operated.
4. Two water towers of the Rozhnovsky system;
5. The guard's house built of bricks;
6. Prefabricated 10/0,4 kV voltage and 250kVA power package transformer substation

At present, because of all facilities and technological equipment in the water intake site are in non-operating condition, the raw water from the boreholes is fed directly into the water supply network which has a total length of about 15km. The raw water is not treated at all.

The schedule of water supply to the network is 24 hours a day. Due to significant leaks in the network and uncontrolled abstraction in the lower part of the village, the upper area, where 100 households are located, the water riches not always, but only during the minimum draw-off hours.

The existing water supply network is made of asbestos-cement and partially of plastic pipes. There are numerous breaks within the network. According to data available, the deterioration of the water supply network is 70%.

At the time of the study, the access of population of the village to piped drinking water was 95%, while almost 100% of consumers have in-house connections. The connections were made by the consumers themselves and do not always meet the technical requirements.

*Схема проектируемой распределительной поселковой сети водопровода*



The village has an irrigation network with a total length of 42.8 km where 24.2 km are operative. According to the passport of the village, 60% of the inhabitants have access to irrigation water.

*Scheme of planned distribution network of the village*

## 2. SCOPE OF WORKS AND IDENTIFICATION OF ASSOCIATED ENVIRONMENTAL AND SOCIAL IMPACTS

### Planned activities:

1. Drilling of a new borehole, 130 m in depth
2. Rehabilitation of existing borehole through cleaning it by sand pumper, airlift washing, replacement of the existing submersible pump for a new energy efficient one (with efficiency not less than 73%,  $Q=15.91/s$ ,  $H=40m$  and  $N=10.5kW$ ).
3. To adjust the speed of the pump, it is supplied with an external converter.
4. Construction of a water transmission line using PE 100 Ø 150 mm pipes; pressure is 6 bar, length is 300 m
5. Onsite pipework using PE 100 Ø 110 mm pipes; pressure is 6 bar, total length is 5,347 m.

The estimated period of construction and rehabilitation works is 12 months. The defects liability period is 12 months.

Tolok subproject will not finance any activity with significant or irreversible environmental impacts, and therefore has triggered OP 4.01 with classification as Environmental Category "B."

## **Handling of asbestos-containing materials (ACM).**

Visits to the Tolok sub-project site showed that the existing water distribution network is made of asbestos cement (AC) pipes. During water system rehabilitation, existing asbestos cement pipes will not be removed. Every effort will be made to leave the old pipes in the ground. New pipelines will be installed parallel to the existing ones. In the event of removal of asbestos cement pipes asbestos contained materials waste will be collected, transported and finally disposed by applying special protective measures in accordance with the hazardous waste handling standards. See Section 6 for detailed information on disposal of asbestos-containing materials.

## **Environmental oversight**

During activities implementation, safeguard specialist of ARIS will have overall supervision responsibility for ensuring that the measures indicated in the ESMP are being properly performed. Safeguard specialist and engineers of ARIS in collaboration with the local authorities and the Kyrgyz Forestry and Environment Preservation Agency will perform the activity's environmental monitoring during both construction and operation phases.

The subproject will not finance Category-A activities, will not support activities that target natural habitats or protected sites, and will not finance those activities that can cause a significant loss or degradation of any significant natural habitat.

## **Social aspects**

*Demographic data.* The summative demographic data is as following: target population is 1280 people, including 628 men and 652 women. The total number of households is 230. The main business activities are farming, agriculture. Women in the village are housewives mostly.

Proceeding from the demographic data (Kyrgyz population-97%), we can say that the possibility of interethnic conflicts and other social tensions is unlikely at this project site.

Potential conflict trigger factors are: perception of or actual delay in implementation; potential social resistance to tariff increase; changes in water consumption behavior and practice; limited capacities of local self-governments. These issues will be mitigated through a proper information sharing, availability of Beneficiary Feedback Mechanism (BFM) and greater engagement of women in project activities.

The subproject will not impact cultural or national heritage monuments.

*Involuntary Resettlement.* Land allotment and resettlement issues are covered by the World Bank OP 4.12 Involuntary Resettlement. As for involuntary resettlement, no significant impacts that could require land allotment, economic displacement or physical resettlement have been identified.

No trees owned by the municipality will be cut down until all necessary permits obtained.

In the event of cutting private trees, RAP (in accordance with RPF) will be prepared and implemented before the start of construction.

As for the impacts on private properties, no private land will be affected because all water transmission and distribution lines will be installed on municipal land.

Conclusion: some private trees will definitely need to be cut; private lands will not be affected.

Section 4 describes social impact minimization measures.

## **Grievance redress mechanisms.**

ARIS will use corporate system for managing grievances and appeals from citizens. Guidelines (Regulations) developed to set procedures for managing grievances and appeals, delineate responsibilities between ARIS officials and specify follow-up measures. This Guideline covers all programs and projects implemented by ARIS, and all ARIS' staff and consultants without exception are to adhere by the requirements of this Guideline.

All appeals and complaints from citizens received under the SRWSSDP will be delivered to the corporate system for further processing and follow-up.

People can use BFM to submit complaints, suggestions and recommendations concerning the ARIS and project related activities in writing or orally, meanwhile ARIS and its staff are obliged to accept and register these in accordance with the provisions of this Guideline.

Beneficiary Feedback Mechanism will be available for project stakeholders to submit questions, comments, suggestions and/or complaints, or provide any form of feedback on all project-funded activities.

### **3. ENVIRONMENTAL LEGISLATION**

The main normative documents governing the environmental protection activities under Tolok subproject are<sup>3</sup>:

- **The Constitution of the Kyrgyz Republic 2010**
- **The Law “On Environmental Protection”<sup>4</sup>**
- **Law on Environmental Expertise<sup>5</sup>**
- **The Law of KR “On General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic”<sup>6</sup>**
- **The Law of KR “On Water”<sup>7</sup>**
- **The Law of the KR “On Interstate Use of Water Bodies, Water Resources and Water Management Facilities in the Kyrgyz Republic”**

Over laws and normative acts on environmental protection can be found at <http://www.nature.gov.kg/lawbase/index.htm>.

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<sup>3</sup> The documents below are described in the main ESMF document for the Sustainable Rural Water Supply and Sanitation Development Project.

<sup>4</sup> Dated June 16, 1999 #53 (with amendments and additions dated February 4, 2002 #22; June 11, 2003 # 101; August 11, 2004 # 113; August 6, 2005 # 124; April 27, 2009 # 131).

<sup>5</sup> Dated June 16, 1999 # 54 (with amendments and additions dated June 11, 2003 # 102; February 26, 2007 # 21)

<sup>6</sup> Dated May 8, 2009 # 151 (with amendments and additions dated March 6, 2012 # 19)

<sup>7</sup> Dated January 14, 1994 # 1423- XII



#### 4. ENVIRONMENTAL AND SOCIAL MANAGEMENT/MITIGATION PLAN

Environmental and Social Elements	Impacts and risks	Proposed mitigation measures <sup>8</sup>	Institutional responsibility for mitigation (Cost of mitigation activities) <sup>9</sup>	Monitoring
Construction period				
<b>Physical Environment</b>				
Noise	<p><b><i>During the construction phase</i></b>, sources of temporary noise will be the engines of construction and road equipment.</p> <p>Noise levels can also increase temporarily along the materials supply routes.</p>	<p>The use of noise protection is not provided, the equipment will be equipped with a silencer. Application of vibrator equipment compliant with standards and vibration- and noise- protection equipment.</p> <p>Equipment will work from 08.00 a.m. to 08.00 p.m. only, no operations will be carried out during night hours.</p> <p>During operations, covers of engines and generators, air compressors and other driving mechanisms should be closed; equipment should be located at the maximum distance from residential premises.</p> <p>So, noise levels during the construction phase, considering that day-time operations only are planned, will not exceed the existing sanitary standards on maximum and equivalent noise levels.</p> <p>There will be no sources of noise <i>during the operational phase</i>.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p>
Pollution Soil and water pollution	<p>Pollution of soil and water by the product (sediment) of water treatment or during leakage detection; pollution of water with oil products from</p>	<p>Use proper agreed placement sites only.</p> <p>Basic proper construction norms and standards applied during the construction period</p> <p>Daily checks of machinery of leaking of oil; ban to wash machinery at construction site.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a</p>	<p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p>

<sup>8</sup> Activities requiring financial expenses are to be included in BoQ.

<sup>9</sup> Cost of mitigation activities is defined by a contractor in relevant items in bidding documents.



	<p>machinery use</p> <p>The following types of work will be carried out during the construction phase:</p> <ul style="list-style-type: none"> <li>- earthworks: cut and fill, backfill, levelling;</li> <li>- construction equipment operation;</li> <li>- solid waste generation;</li> <li>- borehole drilling.</li> </ul>	<p>Topsoil removal</p> <p>Landscaping in accordance with the project.</p>	<p>separate cost item</p>	<p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p>
<p>Air Quality (dust generation)</p>	<p>Dust emissions during retrofitting activities would be minor and temporary. Air pollutant emissions are expected from:</p> <ul style="list-style-type: none"> <li>- motor vehicles;</li> <li>- electric arc welding;</li> <li>- drilling operations.</li> </ul>	<p>Dust prevention measures and good housekeeping practices such as water spraying to prevent dust and use of curtains and screening of the construction area.</p> <p>Use of masks, work gloves and clothes by workers.</p> <p>All vehicles delivering dusty construction materials to the site or removing debris will be enclosed and covered to prevent release of dust.</p> <p>Limitation of the speed of vehicles and selection of relevant transportation routes for minimization of impact on the receptors sensitive to dust.</p> <p>Equipping the machinery transporting granular materials with removable canvas covers. Supply of cement to construction sites in pre-pack hermetic packages.</p> <p>The equipment will be used in certain operations only and will not be present at the construction site all the time.</p> <p>Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases is not allowed.</p> <p>Burning of construction and domestic waste at working area is prohibited.</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>Irrigation of dirt roads with water (wet dust suppression of in-site roads and sites) is considered as a separate cost item in bill of quantities.</p>	<p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p>

		<p>It is needed to ensure cleanliness of adjacent area, not allowing construction waste to minimize dusting and contamination.</p> <p>All emissions will be temporary and short in duration. It should be noted that construction of facilities will not be simultaneous, but will be carried out consecutively on a step-by-step basis—one facility after another.</p> <p>Therefore, air pollutant emissions during the construction phase will not exceed the existing standards.</p> <p>No pollutant emissions will take place <i>during the operational phase</i>.</p>		
Water resources	<p>Borehole drilling:</p> <p>Disturbance of surface-water flow.</p> <p>Disturbance of natural ground water flow level (dewatering, overwatering of soil)</p>	<p>During the construction period, there will no impacts on surface water sources.</p> <p>Refuse from excavations beside groundwater occurrence.</p> <p>Working areas with machinery, cement mixers, and fuel tanks are located beyond water protection zones.</p> <p>During the construction phase, there will be no discharges to any water sources. During the operational phase, there will be no impact on surface waters</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item.</p>	<p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p>
Construction waste	Contamination of adjacent area, soil, water resources	<p>Separation of all types of waste streams, reuse and recycling wherever possible</p> <p>Disposal of wastes that cannot be reused or recycled, transport and disposal of wastes at designated landfill site and in cooperation with the local waste management company; no open burning</p> <p>Mineral waste from construction and dismantling works should be separated from common waste and organic, liquid and chemical waste through sorting and keeping in special containers.</p> <p>All documents on waste removal and disposal should</p>	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p>	<p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall</p>

		<p>be maintained properly as a proof of appropriate management of waste at the site.</p> <p>As for domestic waste, installation of collection tanks and timely removal of waste should be arranged by local SES agencies.</p>		oversight.
Construction hazardous waste	Some construction debris may contain asbestos	Detailed impact mitigation measures are discussed in Section 6.	<p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p> <p>Contractor shall develop site-specific measures where requirements to ACM and asbestos waste will be contained.</p>	<p>The contractor needs to train their workers on how to assess presence of asbestos containing materials and to establish a procedure of its safe removal using proper protection equipment, storage without breaking in air-tight containers and management by an authorized agency or company.</p> <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p>
Chance findings	Damage and degradation of site structures	In case of chance finds or other significant discoveries during excavation works stop all works and inform relevant authorities prior to proceeding		Contractor and Site Supervision Engineer.
Setting up of construction site and removal of site upon completion of works	Possible disturbances decommissioning	<p>Plan to decrease disturbance to surroundings and neighbors (including plans to ensure proper traffic management on access roads to site)</p> <p>Fencing off the site or access to site with proper safety signs</p> <p>After completion of works, site will be restored to previous conditions and all wastes will be cleared in</p>	<p>Negligible costs</p> <p>Contractor costs</p>	<p>Will be further defined with specifications in the design documents</p> <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring</p>

		line with the provisions of this ESMP, all machinery will also be removed from site.		of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
Tree and shrub removal during pipeline installation	Trees and shrubs will be cut down or trimmed along the pipeline routes only after all necessary permits from local environmental agencies are obtained, in coordination with local authorities and with due regard to compensatory planting. All permits will be obtained before the start of construction.		Costs are included in EBOQ (Environmental Bill of Quantities)	Contractor
Topsoil removal	Topsoil removal, transportation, stockpiling and storage at designated location for further use in rehabilitation of disturbed lands.		Costs are included in EBOQ (Environmental Bill of Quantities)	Contractor
General issues	Regular inspections Trainings for staff (workers), safety trainings, other trainings WB safeguards trainings for local authorities, contractors and communities will be continued under SRWSSDP.			Contractor . Local authorities and communities (AO, CDWUU) ARIS
Social aspect				
Safety of workers and population	Industrial accidents	Local inspections controlling construction works and environmental safety and local population should be properly notified on forthcoming project works.  Local communities will be properly notified on works by means of publications and /or notices in mass media and/or bill boards in public places (and at work sites).  All permission required by legislation for use of waste landfill, as well as permissions from sanitary inspection etc. in construction and rehabilitation works at this site, have been obtained.  All works will be carried out though safe and discipline methods to minimize negative impact from	Contract organizations	ACSD  Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.  Representative of contractor is responsible to execute the mitigation measure.  Safeguard specialist and infrastructure engineer of ARIS are responsible for overall

		<p>industrial process on population and environment.</p> <p>Individual protective means should meet safety standards (obligatory application of helmets, protective face masks, when needed, protective glasses, safety belts and boots).</p> <p>Sites will be provided with proper information boards and signs informing the workers about the rules and norms of works to be followed.</p>		oversight.
Aesthetics and landscape	Landscape alterations	Use of landscaping methods; minimization (where possible) of major excavations (deep cuts, high fills)		
Human communities	Demolition of buildings, resettlement in connection with land withdrawal for construction	Use of procedures outlined in World Bank's OP 4.12 Involuntary Resettlement		
	Suspension of utility services	Timely notification of communities about planned cutoffs; rapid restoration of utility services		
	Gender	<p>Equal participation and representation of women throughout the project implementation</p> <p>No less than 30% of meeting/hearing participants will be women.</p> <p>Under the project, it will be suggested to communities that village water committees should be established, with no less than 30% of women included as committee members.</p>		ARIS
	Poverty	A subsidy strategy will be developed under the project to connect low-income households to water systems. This strategy will be introduced under each subproject.		ARIS
	Potential social resistance to tariff increase	Social mobilization, awareness raising (welfare activities, community consultations, development and implementation of outreach campaigns). Tariffs will be developed with due regard to the views of		ARIS

		communities gathered during public consultations.		
	Limited capacities of local authorities	The project allows for a range of capacity building activities and technical assistance to local authorities.		ARIS
Sourcing of labor and implications of any potential labor influx will be closely monitored by the safeguards consultant and ARIS. Civil works contractors will be advised to recruit necessary labor, where feasible, locally. Labor recruited from outside the community where civil works will be done will abide by a 'code of conduct'.				
<b>Operation period</b>				
Proper Operations		<p>Ensure use of environmentally acceptable fuels</p> <p>Regular technical maintenance</p> <p>Ensure all attests and certificates have been acquired in particular for fire protection and monitoring of emissions/concentrations in air</p> <p>Ensure proper, efficient use of water resource, and avoid water losses, leakages and abusive consumptions – install, operate and periodically verify the water meters for each water user.</p>		Operator of CDWUU, Local authorities (representative of AO)

## 5. MONITORING PLAN

### Environmental Monitoring Plan

<b>What</b> parameter is subject to monitoring?	<b>Where</b> will monitoring of parameter be carried out?	<b>How</b> will monitoring of parameter be carried out/type of monitoring equipment	<b>When</b> will monitoring of parameter be carried out- frequency	<b>Monitoring cost<sup>10</sup></b> What cost of equipment or expenses of contractor required to conduct monitoring?	<b>Institutional responsibility for monitoring</b>	<b>Date of commencement</b>
Noise from vehicles and equipment	At the construction and disposal site	Portable noise meters	Continuous	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost items)	1. Inspection of construction sites is carried out by ARIS to ensure compliance with ESMP. 2. State inspectors of Architecture and construction supervision department (ACSD) will supervise fulfillment of design solutions in construction and installation works or reconstruction of facilities, quality of construction materials, structures, and participate in commissioning of completed construction facilities. 3. State ACSD carrying out state environmental supervision have a right to supervise in established procedure on presentation of official identification papers in compliance with environmental provisions, normative quality, environmental protection activities in project implementation.  NGO, local authorities (AO, CDWUU), CDWUU operator	After taken over of site possession by contractor .
Soil and water pollution	At construction site	Visual	Continuous			
Air (dust generation)	At and near the construction site	Portable measuring devices	Weekly			
Transport (parking in designated areas, car washing)	At and near the construction site	Visual	Continuous			

<sup>10</sup> Activities requiring financial expenses are to be included in BoQ.



Construction waste (waste storage and disposal)	At construction site	In accordance with the plan and observation	In accordance with the plan but at least weekly			
Decommissioning of construction site	At construction site	Visual	In accordance with the plan			
Safety of workers	At construction site	Visual	Continuous			

## **6. COLLECTION, STORAGE, TRANSPORTATION AND DISPOSAL OF ASBESTOS-CONTAINING WASTES.**

Removal of materials that contain asbestos will be carried out in line with the local legislation, including construction standards, work safety issues, air borne emissions of hazardous pollutants and disposal of waste and hazardous waste (in the event that there is no local legislation, the Directive 2003/18/EC of the European Parliament will be used, that amends and supplements Directive of the Council 83/477/EEC on worker protection from workplace asbestos exposure risks: threshold values of airborne dust particles is 0.1 fiber/cm<sup>3</sup>; also use the Good Practice Note: Asbestos: Health Issues at Workplace and Community; World Bank). Asbestos materials shall be subject to immediate final disposal/burial under special conditions.

According to Order #885 of the Government of the Kyrgyz Republic *On Hazardous Waste Management in the Kyrgyz Republic* of December 28, 2015, asbestos-containing wastes should be disposed as follows.

The hazardous waste management process (waste lifecycle) consists of the following phases: generation, accumulation (collection, temporary storage, stockpiling), transportation, neutralization, recycling, reuse of recycled products, and disposal.

When asbestos is present at a project site, it should be clearly labeled as a hazardous material. Asbestos-containing materials should not be subject to cutting or breaking as this will result in dust generation. In reconstruction, all workers should avoid crushing/damaging asbestos-containing waste, stockpile such waste at designated locations within the construction site and dispose of it properly afterwards to a special location or landfill.

When asbestos-containing waste is subject to temporary on-site storage, they should be properly contained in leak-tight containers and labeled appropriately as a hazardous material. Safety precautions should be taken to prevent any unauthorized removal of such waste from the site.

### **Collection and temporary storage of waste**

Asbestos waste generation should be minimized by using efficient technologies.

All asbestos-containing materials should be handled and disposed by qualified and experienced personnel only. The personnel should wear appropriate protective equipment (safety masks, gloves and overalls).

The amount of waste stored at the designated site must not be greater than permitted by the standards.

Industrial waste collection sites and access ways must not be blocked up.

When handling asbestos waste, the workers should necessarily wear special protective clothing, gloves and respirators. Prior to removing (if required) asbestos from the site, it should be treated with a wetting agent to minimize asbestos dust emission. Removed asbestos should never be reused.

Keeping foreign items, individual or working clothes, or personal protection equipment, or having meals at waste collection sites is not allowed.

During handling operations, workers must comply with applicable handling requirements and general safety rules. All operations should be carried out mechanically, using labor-saving lifting and transport equipment.

Hazardous wastes should be transported to the landfills by properly equipped vehicles, either own or of a specialized third party carrier. The transport vehicles should be constructed and used in a manner that prevents potential incidents, losses and environmental pollution both on the way to the landfill and when transferring waste from one vehicle to another. All activities that involve loading, transportation and unloading of waste at main and auxiliary sites should be mechanized and use leak-tight equipment. Opening hazardous waste containers during transportation is prohibited.

Solid and dusty wastes should be transported in special containers or containers fitted with gripping devices for unloading by truck cranes. Transporting unpacked asbestos in open trucks or on flat wagons is not allowed.

Using hooks and other sharp tools in handling operations is not allowed.

No one except the driver and staff members authorized to escort the waste off site is allowed to be in vehicles transporting hazardous waste. The drivers of vehicles that will transport asbestos waste must be trained in safe transport requirements.

All operations in connection with loading, transport, unloading and disposal of waste must be mechanized. The waste must be transported in a way to prevent transportation losses and environmental impacts.

#### **Disposal of asbestos waste**

Asbestos waste must be disposed to landfills for municipal solid waste or unrecycled industrial solid waste.

### **7. PUBLIC CONSULTATIONS**

The ESMP public consultations were held on November 15, 2017 in Tolok village. Heads of AO, staff of CDWUU, headmen, elderlies, deputies of aiyl kenesh and local population took part in public hearings. The total number of participants was 50 people, 29 of them women, that is, 58%, youth (schoolchildren) also took part.

The interested parties and the population were provided with information on the technical part of the upcoming subproject, as well the information on the possible social and environmental impacts of the planned construction / rehabilitation of the water supply system.

Information on Beneficiaries Feedback Mechanism was disseminated to all beneficiaries of subproject. ARIS provided information on the scope of Beneficiaries Feedback Mechanism, eligibility criteria for submission of the appeals, procedure of appeal submission (where, when and how), deadlines of response, as well as the privacy principle and the right to submit anonymous appeals.

#### **MINUTES**

#### **Public hearings on discussion of Environmental and social management plan for by rehabilitation of the water supply system in Tolok subproject under Sustainable development of rural water supply and sanitation project (SDRWSP)**

**Venue and time:** Tolok village  
November 15, 2017, 11:00 a.m.

**Mamatov E.E.** - the head of AO Tolok opened the hearing, greeted the invited guests and introduced the ARIS staff who participated in preparation of the project.

**Kerimbekova M.** - safeguard specialist, made a presentation on social and environmental safety measures, provided for in the project. She spoke in detail about environmental safety and social protection measures. A developed Environmental and Social Management Plan was presented. Information on Beneficiaries Feedback Mechanism was disseminated to all beneficiaries of subproject.

Beneficiaries Feedback Mechanism (BFM) is a process of receiving prompt, objective information, evaluation and consideration of appeals (claims, suggestions, complaints, requests, positive feedback) related to ARIS projects.

**Question 1:** Some of our villagers would like to work for contractors during construction, is it possible?

**Answer 1:** Contractors involved in civil works will be encouraged to recruit the necessary labor, where possible, at the local level. Workers hired outside the community, where construction works will be carried out, must comply with the Code of Conduct.

**Question 2:** On which side of the streets will the pipes be laid?

**Answer 2:** Pipes will be laid according to the developed project. Streets sides where the pipes will be laid are coordinated with the ayil okmotu head.

**Question 3:** Why the pipes are not laid on both sides of the street?

**Answer 3:** There are SNIPs requirements, according to which the pipes should be laid strictly as regulated. The project is implemented in accordance with SNiPs of the Kyrgyz Republic.

**Question 4:** What will happen to the dismantled asbestos pipes? Could they be distributed to residents for re-use?

**Answer 4:** Unfortunately, it is impossible, since their re-use can be a serious threat to the health of builders and the population living near the construction works. All ABMs will be transported and disposed of in accordance with Decree of the Government of the Kyrgyz Republic of December 28, 2015, No. 885 "Procedure for the Management of Hazardous Wastes in the Territory of the Kyrgyz Republic".

**Question 5:** Will the contractor be able to connect users?

**Answer 5:** The contractor will perform the scope of work in accordance with the concluded contract. The works on connection of households should be decided by local self-government in conjunction with CDWUU. Connection is planned to be carried out according to the technical specifications issued by the CDWUU.

**Question 6:** Will there be street stand water pipes?

**Answer 6:** According to the project, street water pipes are not provided, only in-yard connections through meters will be provided.

**Question 7:** What is the project budget?

**Answer 7:** The budget of construction and installation work will be calculated in accordance with the methodology of Gosstroy, and the Project Organization will prepare tender documents with the scope of work. After the tender announcement and receipt of financial proposals from all participating contracting organizations and in the subsequent selection, the cost of construction and installation work will be announced.

**Question 8:** At whose expense will the meters be installed?

**Answer 8:** The project purchases 70% of meters that will be installed by the contractor. Meters are planned to be installed for the poor in accordance with the list provided by Ail Okmoty. 30% of meters must be purchased by residents themselves, the meters will be installed by CDWUU. It is also planned to implement the billing system in the future.

**Question 9:** When will we get water from the new network?

**Answer 9:** Water from the new system will be delivered after the completion of the construction and commissioning of the facility, and after water disinfection measures. Before water is supplied from the new system, the population will use the existing system.

**Question 10:** What diameter will the pipes for connecting to wells?

**Answer 10:** According to the project, the connection pipes are Ø 15 mm in diameter.

**Question 11:** Through which communication channels it will be possible to address in Beneficiaries Feedback Mechanism (BFM)?

**Answer 11:** The appeals may be sent to ARIS via the following channels of Beneficiaries Feedback Mechanism: hotline (calls are received 24-hours; conversations will be recorded); WhatsApp (a system of immediate text messaging for mobile devices with voice and video connections); social media (Facebook, Odnoklassniki); ARIS web-site: [www.aris.kg](http://www.aris.kg); verbal or written appeal received during the on-site working meetings; incoming correspondence via ARIS reception; incoming correspondence via e-mail.

**Question 12:** Can I apply to BFM anonymously?

**Answer 12:** The appeals may be submitted anonymously. The privacy shall be ensured in all cases including the case when the identity of a person submitting the request is known to avoid a conflict between the interested parties.

**Question 13:** Are there any connection to FAPs and schools, will there be water stand pipes?

**Answer 13:** The project envisages the connection of all social institutions, there may be standpipes or internal inputs, the connection will be made only through water meters.

**Question 14:** Who will monitor during construction?

**Answer 14:** The ARIS Field Technical Supervision Engineer will supervise the construction site, including monitoring of potential environmental risks. The representative of the contractor organization is responsible for reduction of the negative impact on the environment. The safeguard specialist and the infrastructure engineer of ARIS are responsible for the overall supervision.

**Question 15:** When the civil works are planned to start?

**Answer 15:** It is planned for spring of 2018 after the tender procedures completed. Prior to commencement of civil works, it is necessary to complete all the preparatory work on site, to obtain all the necessary documents.

**Question 16:** Is there a guarantee that in remote houses the water pressure will be appropriate?

**Answer 16:** By developing the project, hydraulic calculations were carried out, according to which the pressure in all remote houses would be consistent with the requirements of regulatory documents.

**Question 17:** When laying pipes along the streets, asphalt road surfaces will be dismantled, is there a restoration of the cover?

**Answer 17:** In BoQs, restoration of asphalt covering is envisaged in those areas where the coatings will be dismantled.

**Question 18:** Is it possible to employ local residents in contract organizations?

**Answer 18:** Issues related to the employment of local people in contract organizations are decided by the organizations themselves, we can not force the contract organizations to hire workers or specialists from among local residents.

**Question 19:** What types of work affect the environment?

**Answer 19:** The following types of works can affect the environment: digging, excavation, embankment, land fill, planning, construction machinery, domestic waste, drilling wells.

#### **THE DECISION TAKEN:**

Participants of the public hearing supported the subproject for rehabilitation of water supply system in Tolok and acknowledged it as a vital one to ensure the uninterrupted supply of clean drinking water to the residents of Tolok aiyl okmotu.

ESMP was approved by the residents the subproject area.

**The head of Tolok aiyl okmotu**

**Mamatov E.**

**Safeguards Specialist:**

**Meerim Kerimbekova**

**Secretary:**

**Kutmanbekova N.**

**ПРОТОКОЛ**  
**Общественных слушаний по обсуждению**  
**Плана управления окружающей и социальной средой при реабилитации системы**  
**водоснабжения в подпроекте Толок рамках**  
**Проекта устойчивого развития сельского водоснабжения и санитарии (ПУРСВС).**

**Место и время проведения:** с. Толок  
15 ноября 2017 г. в 11:00 часов

**Маматов Э.Э.** – глава айыл окмоту Толок открыл слушания, поприветствовал приглашенных и представил сотрудников АРИС, участвовавших в подготовке проекта.

**Керимбекова М.** – специалист по мерам безопасности, представила презентацию о мерах социально-экологической безопасности, предусмотренных в проекте. Подробно рассказала об экологической безопасности, социальных мерах защиты. Был представлен разработанный План управления окружающей и социальной средой.

Населению была представлена полная информация о Механизме обратной связи (МОС). Механизм обратной связи (МОС) является процессом получения оперативной, объективной информации, оценки и рассмотрения обращений (заявлений, предложений, жалоб, запросов, позитивных отзывов), связанных с проектами АРИС.

**Вопрос 1:** Некоторые наши жители села хотели бы устроиться на работу к подрядным организациям во время строительных работ, возможно ли это?

**Ответ 1:** Подрядчикам, привлекаемым для осуществления общестроительных работ, будет рекомендовано набирать необходимую рабочую силу, по мере возможности, на местном уровне. Рабочие, нанятые за пределами сообщества, где будут осуществляться строительные работы, должны соблюдать Нормы поведения.

**Вопрос 2:** По какой стороне улиц будут проложены трубы?

**Ответ 2:** Трубы будут прокладываться согласно разработанному проекту. Стороны улиц, по которым будут проложены трубы согласованы с главой айыл окмоту.

**Вопрос 3:** Почему трубы не укладываются по обеим сторонам улиц?

**Ответ 3:** Есть требования СНиПов, согласно которых вопрос укладки труб по двум или одному стороне дороги строго регламентированы. Проект выполняется согласно СНиПов КР.

**Вопрос 4:** Что будет с демонтированными асбестовыми трубами? Нельзя ли их раздать жителям для повторного использования?

**Ответ 4:** К сожалению, нельзя, так как повторное их использование может быть серьезной угрозой здоровью строителей и населения, проживающих вблизи строительных работ. Все АСМ будут вывезены и утилизированы согласно Постановлению Правительства Кыргызской Республики от 28 декабря 2015 года № 885 «Порядок обращения с опасными отходами на территории Кыргызской Республики».

**Вопрос 5:** Сможет ли подрядчик подключить абонентов?

**Ответ 5:** Подрядчик будет выполнять объемы работ согласно заключенного контракта. Организация работ по подключению домохозяйств должны решаться местным самоуправлением совместно с СООПВВ. Подключение планируется осуществлять по техническим условиям, выдаваемым СООПВВ.

**Вопрос 6:** Будут ли уличные колонки?

**Ответ 6:** По проекту уличные колонки не предусмотрены, будут только дворовые подключения через счетчики.

**Вопрос 7:** Каков бюджет проекта?

**Ответ 7:** Бюджет СМР будет рассчитываться согласно методике Госстроя, также Проектная организация подготовить тендерные документации с объемами работ. После объявления тендера и получения финансовых предложений от всех участвующих подрядных организаций и в последующем отборе будет оглашена стоимость СМР.

**Вопрос 8:** За чей счет будут устанавливаться счетчики?

**Ответ 8:** По проекту закупаются 70% счетчиков которые установят подрядная организация. Счетчики планируется установить малоимущим слоям населения согласно представленному списку от Айыл Окмоту. 30% счетчиков должны закупаться самими жителями, установку счетчиков будет выполняться силами СООПВВ. Также планируется в дальнейшем внедрения биллинговой системы.

**Вопрос 9:** Когда получим воду из новой сети?

**Ответ 9:** Воду из новой системы подадут после завершения строительных работ и сдачи объекта, и проведения дезинфицирующих мероприятий. До подачи воды из новой системы население будет получать воду из существующей системы.

**Вопрос 10:** Какого диаметра будут трубы для подключения к колодцам?

**Ответ 10:** Согласно проекту, подключение будет выполняться трубами диаметром Ø15 мм.

**Вопрос 11:** Через какие каналы можно будет обратиться в МОС?

**Ответ 11:** Обращения могут быть направлены в АРИС при помощи следующих каналов Механизма обратной связи: телефон доверия (звонок можно осуществлять круглосуточно, разговор будет записываться); WhatsApp (система мгновенного обмена текстовыми сообщениями для мобильных устройств с поддержкой голосовой и видеосвязи); социальные сети (Фейсбук, Одноклассники); веб-сайт АРИС: [www.aris.kg](http://www.aris.kg); устные или письменные обращения, полученные в ходе рабочих встреч на местах; входящая корреспонденция нарочно в приемную АРИС; входящая корреспонденция по электронной почте.

**Вопрос 12:** Можно ли обращаться в МОС анонимно?

**Ответ 12:** Обращения могут быть поданы анонимно. Конфиденциальность должна обеспечиваться во всех случаях, в том числе, когда личность лица, подающего обращения известна, во избежание конфликтов заинтересованных сторон.

**Вопрос 13:** Предусмотрены ли подключение школ ФАПов, будут ли колонки?

**Ответ 13:** Проектом предусмотрено подключение всех социальных учреждений возможно будут колонки или внутренние вводы, подключение осуществляются только через счетчики воды.

**Вопрос 14:** Кто будет проводить мониторинг во время строительных работ?

**Ответ 14:** Инженер по техническому надзору на местах АРИС будет осуществлять общий надзор за строительной площадкой, включая мониторинг потенциальных экологических рисков. Представитель подрядной организации несет ответственность за выполнение мер по снижению отрицательного воздействия на окружающую среду. Специалист по мерам безопасности и инженер по инфраструктуре АРИС несут ответственность за всеобщий надзор.



**Вопрос 15:** Когда планируются строительные работы?

**Ответ 15:** Строительные работы планируются с весны 2018 года после завершения тендерных процедур. До начала строительных работ необходимо завершить все подготовительные работы на месте, получить все необходимые документы.

**Вопрос 16:** Есть гарантия что в отдаленных домах давление воды будет соответствующим?

**Ответ 16:** При разработке проекта были выполнены гидравлические расчеты, согласно которых давление во всех отдаленных домах давление будет соответствовать требованиям нормативных документов.

**Вопрос 17:** При прокладке труб по улицам будут демонтированы асфальтовое покрытие дорог, предусмотрены ли восстановление покрытия?

**Ответ 17:** В ВОРх предусмотрены восстановление асфальтового покрытия в тех участках где будут демонтированы покрытия.

**Вопрос 18:** Возможно ли трудоустройство местных жителей в подрядные организации?

**Ответ 18:** Вопросы, связанные с трудоустройством местного населения в подрядные организации, решается самой организацией, мы не можем призывать подрядные организации нанимать рабочих или специалистов из числа местных жителей.

**Вопрос 19:** Какие виды работ воздействуют на окружающую среду?

**Ответ 19:** В период строительства воздействия оказывают следующие виды работ: земляные работы, выемки грунта, насыпи, отсыпка грунта, планировка, работа строительной техники, бытовые отходы, бурение скважины.

#### РЕШИЛИ:

Участники общественных слушаний поддержали проект «Реабилитация системы водоснабжения в подпроекте Толою», как жизненно важный для бесперебойного обеспечения чистой питьевой водой жителей айыл окмоту. ПУОСС был одобрен жителями подпроекта.

Глава айыл окмоту Толок



Маматов Э.

Специалист по мерам безопасности:

Керимбекова М.

Секретарь:

Жульманбекова Ж.Б.

# СПИСОК

участников общественных слушаний по обсуждению  
Плана управления окружающей и социальной средой (ПУОСС)  
при реабилитации системы водоснабжения в подпроекте Толок

г.Бишкек

15 ноября 2017г.

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
1.	Исмаилов К.И.	ООО ППБ, председатель	Исмаилов
2	Атаевибаева Б	ул. Пудинская 11/1	Атаевибаева
3	Когойбаева М.	ул. Пудинская 11/1	Когойбаева
4	Шабраева Б	ул. Пудинская 14/1	Шабраева
5	Ватыевбекова Н.	ул. Пудинская 8/2	Ватыевбекова
6	Рыскелдиева А	ул. Пудинская 15/1	Рыскелдиева
7	Асанбаева С	ул. Пудинская 17/2	Асанбаева
8	Тойбаева С	ул. Айтматов 28	Тойбаева
9.	Анарбекова М.	ул. Коммунальная 12	Анарбекова
10	Батиевбекова М.	ул. Школьная 16	Батиевбекова
11	Чолпонов А.	ул. Эмильев 2	Чолпонов
12	Гуркаев И.	ул. Токтогул 26	Гуркаев
13	Мамедарова Г.	ул. Школьная 2	Мамедарова
14	Касиева Т.	ул. Айтматов 29	Касиева
15	Абдыкеримова К.М.	ул. Школьная 121	Абдыкеримова
16	Алишеринова М.Т.	ул. Токтогул 120	Алишеринова
17	Мамыров И.Б.	ул. Айтматов 123	Мамыров
18	Гимматиянов, С.М.	ул. Шумовы №19	Гимматиянов
19	Пирракимов, А.М.	ул. Шумовы №21	Пирракимов
20	Асанжамалов, К.Б.	ул. Токтогул 128,1	Асанжамалов
21	Сабиркулов С.О.	ул. Мира 14	Сабиркулов
22	Абдыкеримова Р.Р.	ул. Мира 15	Абдыкеримова
23	Боржиева Б	ул. Токтогул 128,1	Боржиева



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г.Бишкек

15 ноября 2017г.

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
24	Садыкова Ч.Б.	ул. Токтогула 22-2	Садик
25	Иманалиев У.Д.	ул. Шоктогула	Иман
26	Бердишамиева А.	ул. Айтамыш №5	Берди
27	Маматов Д.Д.	ул. Токтогула 2	Маматов
28	Джумагулова А.Н.	ул. Мира 17	Джума
29	Сатимбетов	ул. Токтогула	34 Сатим
30	Маматбеков А.	ул. Мира 16	Мамат
31	Расимов Т.М.	ул. Айтамыш №32	Расим
32	Маматова Т.Б.	ул. Айтамыш 25	Тамара
33	Маматова Б.Т.	ул. Айтамыш 25	Мамат
34	Ишмбетова А.Д.	ул. Айтамыш 20	Ишмбет
35	Бектурганова А.	ул. Мухомова 18	Бектур
36	Бектасов С.А.	ул. Айтамыш №7	Бектас
37	Мурзабеков Д.А.К.	ул. Токтогула №12	Мурза
38	Алишбек А.З.	ул. Токтогула №5	Алиш
39	Мекшинов Арсен	ул. 40-лет №1	Мекши
40	Джамалбеков Т.Ч.	ул. Шоктогула №13	Джамал
41	Шабданов Э.Б.	ул. Жумалы №4	Шабдан
42	Садыков А.Б.	ул. Айтамыш №24	Садык
43	Мурзабеков А.	ул. Айтамыш №26	Мурза
44	Иманалиев У.Д.	ул. Шоктогула №24 и 22	Иман
45	Исмаилов Т.	ул. Айтамыш №14	Исмаил
46	Пуромов Б.	ул. Мира №3	Пуром

участников общественных слушаний по обсуждению  
Плана управления окружающей и социальной средой (ПУОСС)  
при реабилитации системы водоснабжения в подпроекте Толок

15 ноября 2017г.

[illegible]



## 8. SUPERVISION AND REPORTING

Field technical supervision engineer must be at the site at all times. In addition, safeguard specialist or infrastructure engineer of ARIS visits construction sites at least once a month in order to supervise fulfillment of ESMP during subproject implementation. More visits may be required if any issues are identified. If there are topical environmental issues, ARIS should continue its supervision during facility operation.

After site monitoring visit report of safeguard specialist should be submitted by coordinator of project. In the event of non-compliance with environmental protection measures, a statement specifying the remedial period for contractor should be drawn up.

«Environmental protection» section will be included in regular Progress Reports prepared by field technical supervision engineer and delivered to ARIS. The section should contain compressed information and briefly describe monitoring activities as well as any arising issues and the ways to address them.

The final responsibility for the implementation of the ESMP remains with the Project Implementation Unit (ARIS), as per the World Bank environmental safeguards, the bidding and contractual documentation will allow for the responsibility of implementing specific mitigation measures to be transferred to the contractor from the PIU.