



KYRGYZ REPUBLIC
COMMUNITY DEVELOPMENT AND INVESTMENT AGENCY
(ARIS)

THIRD VILLAGE INVESTMENT PROJECT
(VIP 3)

Micro-project: «Construction of water tower and laying of pipes (1650 m) » in
Manas raion, Talas oblast

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
(ESMP)

Pokrovka - 2019

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ABBREVIATIONS

AA	Aiyl Aimak
AO	Aiyl Okmotu
ARIS	Community Development and Investment Agency
ACM	Asbestos Containing Materials
WB	World Bank
POL	Petroleum, Oil and Lubricants
SETI	State Environmental and Technical Inspectorate
SEE	State Environmental Expertise
KR	Kyrgyz Republic
LC	Large Cattle
BFM	Beneficiary Feedback Mechanism
SC	Small Cattle
JSS	Junior Service Staff
LSGB	Local Self-Governmental Bodies
OM	Operation Manual
OP	Operational Policy
TS	Top Soil
RGoKR	Resolution of the Government of Kyrgyz Republic
DDE	Detailed Design and Estimates
VIP	Village Investment Project
MP	Monitoring Plan
ESMP	Environmental and Social Management Plan
RaiED	Raion Education Department
SanPiN	Sanitary rules and provisions
PPE	Personal Protective Equipment
MM	Mass Media
CDWUU	Community Drinking Water Users Union
ECW	Electric Centrifugal Water

1 INTRODUCTION

Village Investment Project (VIP-3) is aimed at increasing local capacity for joint planning of development process and improvement of access to sustainable infrastructure in target communities.

The Project consists of three components: (1) strengthening capacity of local authorities and communities, (2) village investments including (2.1) grants for sub-projects and (2.2) small grants for micro-projects and (3) project management.

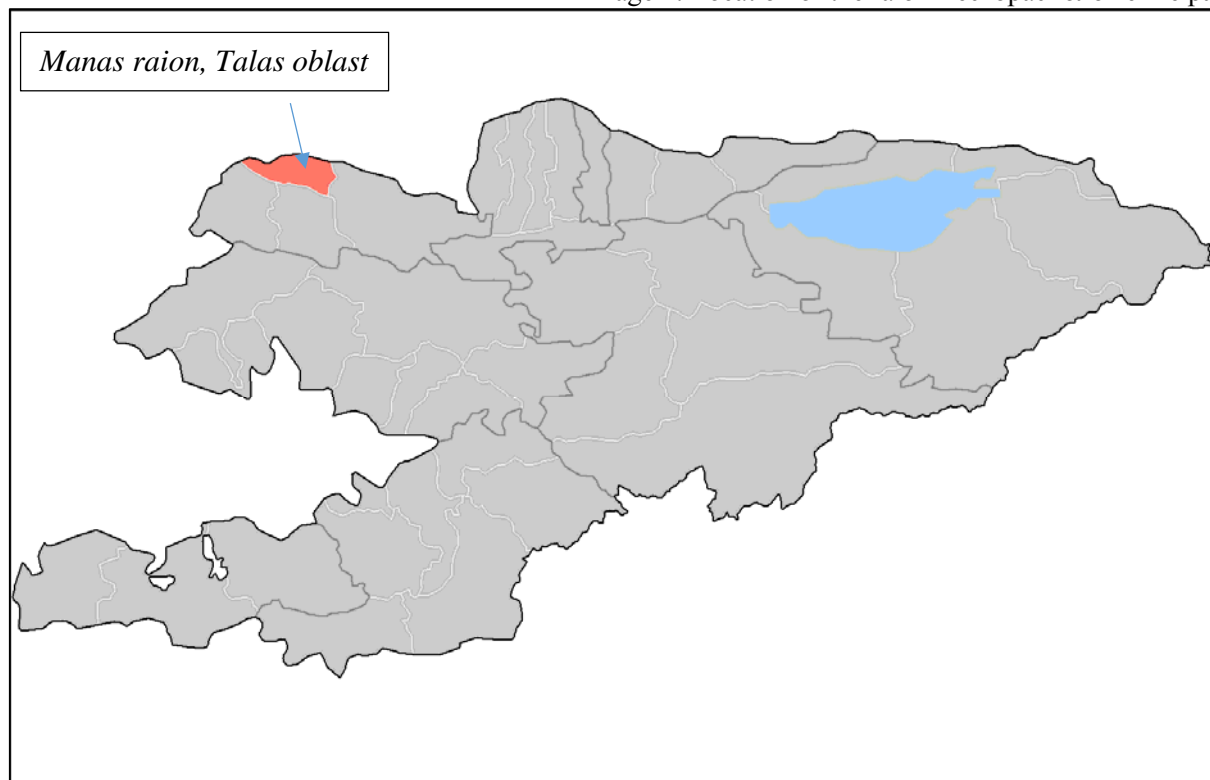
Component 2 activities are aimed at improvement of access to the social and economic infrastructure for the villagers by providing grants to the rural communities winning the contests.

One of the micro-projects of this Component is “Construction of Rojnovskiy water tower and laying of water supply pipes (1650 m.) in Bala-Saruu v., Pokrovskiy AA, Manas raion, Talas oblast”. Currently the territory of existing water supply system is a municipal property and transferred to CDWUU operation in Bala-Saruu v.”

2 SUMMARY OF RAION AND AIYL AIMAK

Manas raion was formed in 1980. Area of the raion is 1045 km², which is 9,1% of the oblast area. According to the census of 2009 the population is 32 913 people - 14,5% of oblast population. Average density of population is 31,5 people per 1 km². There are 22 rural settlements relating to 5 aiyl aimaks: Kayindy (5 settlements), Kyrgyzstan (3), May (2), Pokrovka (5), Uch-Korgon (7).

Image 1. Location of the raion Месторасположение района



Administrative center of the raion is Pokrovka v. with a population of 7 419 people.

Manas raion occupies lower part of Talas intermountain area, on the south the border passes along Ak-Tash mountains (height is 1288 m) and Echgili-Too (2160 m), on the north-east - along Kyrgyz mountain ridge slopes (1913 m). Valley occupying up to 29% of the raion area is represented by alluvial flatlands and aggradation plain. The sea level in flatlands varies between 750 and 1150 m.

The main river is Talas river (below Kirov reservoir) up to Kazakh border.

Average annual precipitation is 300 mm, increasing up to 400 mm in mountains, during warm weather the precipitation is up to 200 – 250 mm. Daily maximum of precipitation is 60 – 70 mm.

Average monthly temperature in January varies from -4 °C to - 6°C, in July from + 20 to + 25°C. Average of absolute minimum is - 30°C, average maximum is +42°C.

Soils: in flatlands – gray soil, in mountains - brown, chestnut and black soil.

Mineral resources: granites, construction materials.

The main activity in raion is agriculture. There are 5 983 households in raion. Arable lands are 19,0 thousand ha, rainfed lands are 6,4 thousand ha, pastures are 61,02 thousand ha.

Taraz-Talas-Otmek, Taraz-Pokrovka-Talas roads are passing through raion territory.

3. SUMMARY OF AIYL AIMAK

Pokrovka AA has 5 villages – Pokrovka, Jaiylgan, Bala-Saruu, Sogot, Kara-Archa.

Bala-Saruu village is located in 5 km to the south from Pokrovka v., administrative center. The remoteness from oblast center is 85 km. Population of the village is 1853 people, including 1100 women. The village has a primary school with 1-4 grades and a secondary school. There are also 1 FAP, 1 bathhouse, 1 school library. Number of students is 162, teachers – 13, JSS – 8 people. Also one of the school buildings is used for short-term kindergarten attended by 83 children and 4 teachers.

The main income of population is agriculture.

For today, according to the village profile there are:

- cars -137;
- tractor- 24;
- trailer-22;
- plough- 19;
- Large Cattle- 460;
- Small Cattle- 4468;
- Horses- 185;
- poultry - 2693.

3.1 Current situation

Currently Bala-Saruu village has a water supply system which needs to be rehabilitated and extended due to its long-term operation. The seismicity of the raion is 9 points. Seismicity of the raion is 9 points.

Mainly the soils of II category are widespread on the project construction area and along the alignment of engineering communications.

Penetration depth of the zero izothermal line is 100 cm.

Image 2. Location of operating water intake area



Currently Bala-Saruu village is supplied with drinking water from two sources. The first is an existing borehole with a depth of 60 m., drilled in 1970 and located on the territory of village. The borehole is equipped with a pump ЭЦВ-8-16-140. The second water supply source is a water catchment structure installed on Uzun-Bulak spring. Water supply scheme of Bala-Saruu village is forced.

The operating water tower with water tank volume of 15 m³ was built in 1970. The area of water intake area is 3114 m² and is on the balance of Pokrovka AA. The critical condition of the tower does not allow to provide the whole population with clean drinking water, as the water collected within a day is consumed in 2-3 hours. Half of accumulated water flows through patched holes of the tank. Today water is available to 1493 people. 40 families or 350 people have to carry water from the distance of 500 meters.

Image 3. Photo 1-4 of construction area



3.2 Main design solutions

Due to the lack of funds the micro-project was divided into two construction stages of 1 and 2 priorities.

The following works are planned at the first stage implemented by ARIS:

- Installation of water tower;
- Connecting intrasite water pipes;
- Installation of filter well;
- Restoration of gate house

The second stage is planned to be implemented later funded by Aiyl Aimak – laying and connecting water pipes along the village streets with total length L=1650 meters.

4. TECHNICAL PLAN

The design provides the following technical plan: drinking water is pumped from the borehole by submersible pump into the designed Rojnovskiy water tower and supplied by gravity to the distribution network of Bala-Saruu village where it is distributed to the consumers.

According to the approved water supply scheme the design provides the following list of structures:

- - Water supply source: underground (artesian) water from the existing borehole;
- - Water tower: designed, steel (Rojnovskiy system), with a volume $V=50 \text{ m}^3$, height of support $H=15 \text{ m}$. Water tower is located on the existing water intake area. It will be equipped with inlet, outlet, overflow and drainage pipes. Overflow and drainage from the water tower is provided into a concrete

duct. Switching over and cleaning water tower is conducted by valves in a designed control well located in 5 m from the water tower at the water intake area. The lower part of the tower core and control well is covered by cushion layer.

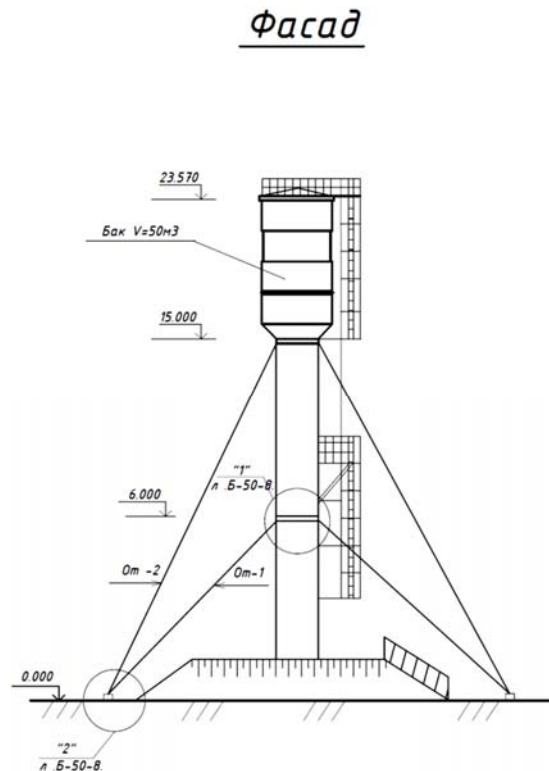
4.1 Construction solutions

Water tower includes a cistern and support compiled from the parts with a length of 6 and 9 m each.

The cistern with different volumes have one universal diameter of 3020 m. Diameter of water filled support will vary in the following way:

- cistern with a volume of 50 m³, height of support is 15 m, diameter is 1220 mm;

Image 5. Tower façade, fragment of the detailed design



4.2 Technical part

Tower equipment includes pressure-distributing pipeline, overflow and discharge pipes. Water is supplied through pipes from the pump station to the lower part of the tower support. The same pipeline serves for allocating water from the tower to consumers. For complete evacuation of the tower when cleaning and repairing, a wash pipe is laid at the lower part of the tower support.

For location of necessary equipment near the tower a well is installed which has valves on the water pipes and discharge pipe: on inlet-outlet pipe – with electric drive to turn off the tower in case of fire, on discharge – with hand drive, and the end of overflow pipe is projected over earth cushion layer at the height of 3.2 m at the ground level. From the well the discharge pipe is bent with air gap into open ditch. Pipelines will be installed by welding. To use the tower for firefighting and water sampling, a raiser with a diameter of 70 mm with two shut-off valves and two connecting heads is installed on the pressure-distributing pipe. Filling the tower core with water makes it possible to lower the water horizon from the maximum level in the cistern to the bottom of the tower support, which creates a reserve supply of water consumed when the power supply is cut off. The use of reserve water can be carried out in the following ways:

a) with a pressure decreasing as water is consumed, for example, for use in cattle and poultry drinkers or when the population draws water into buckets from street stand-pipes;

b) with the help of a motor pump and mobile tanks for transporting water to places of use (field camps, summer pastures, at facilities where pumps temporarily do not function and for firefighting) to apply pump sleeves the heads with a diameter of 50 mm are provided in the well near the water tower;

c) using a special pressure amplifier pump, for example, type 2k-6, installed in a separate well, to supply water to the network in addition to the flow rate supplied from the artesian borehole (the pump is turned on when the tower is disconnected from the network).

In accordance with BOQ the planned works may be divided into the main types of work:

Excavation:

- Excavation works using excavator
- Soil compaction
- Arrangement of ground bed
- Manual filling of trenches
- Backfilling of trenches and ditches using bulldozer
- Soil compaction using pneumatic rammers
- Watering of compacted soil
- Embankment using bulldozer
- Manual levelling, soils of Group 2
- Mechanical levelling, soils of group 2

Arc welding operations

Concrete works

- Construction of concrete blind area on macadam;
- Construction of concrete stops;
- Construction of reinforced concrete foundations from B15 concrete;
- Concrete blinding for the well.

Disinfection of pipes

- Cleaning and disinfection of pipes.

Hydraulic test

- Laying steel water pipes with hydraulic test. Steel water pipes are used on the water intake reconstruction site, total length is 58,6 m, plastic pipes are planned in distribution network with a length of 1650 m.

Waterproofing

- Side coating bituminous waterproof of 2 layers on a levelled wall surface including the cost of materials;
- Application of anticorrosive bituminous-rubber or bituminous-polymer insulation;
- Side coating waterproof of walls and foundations.

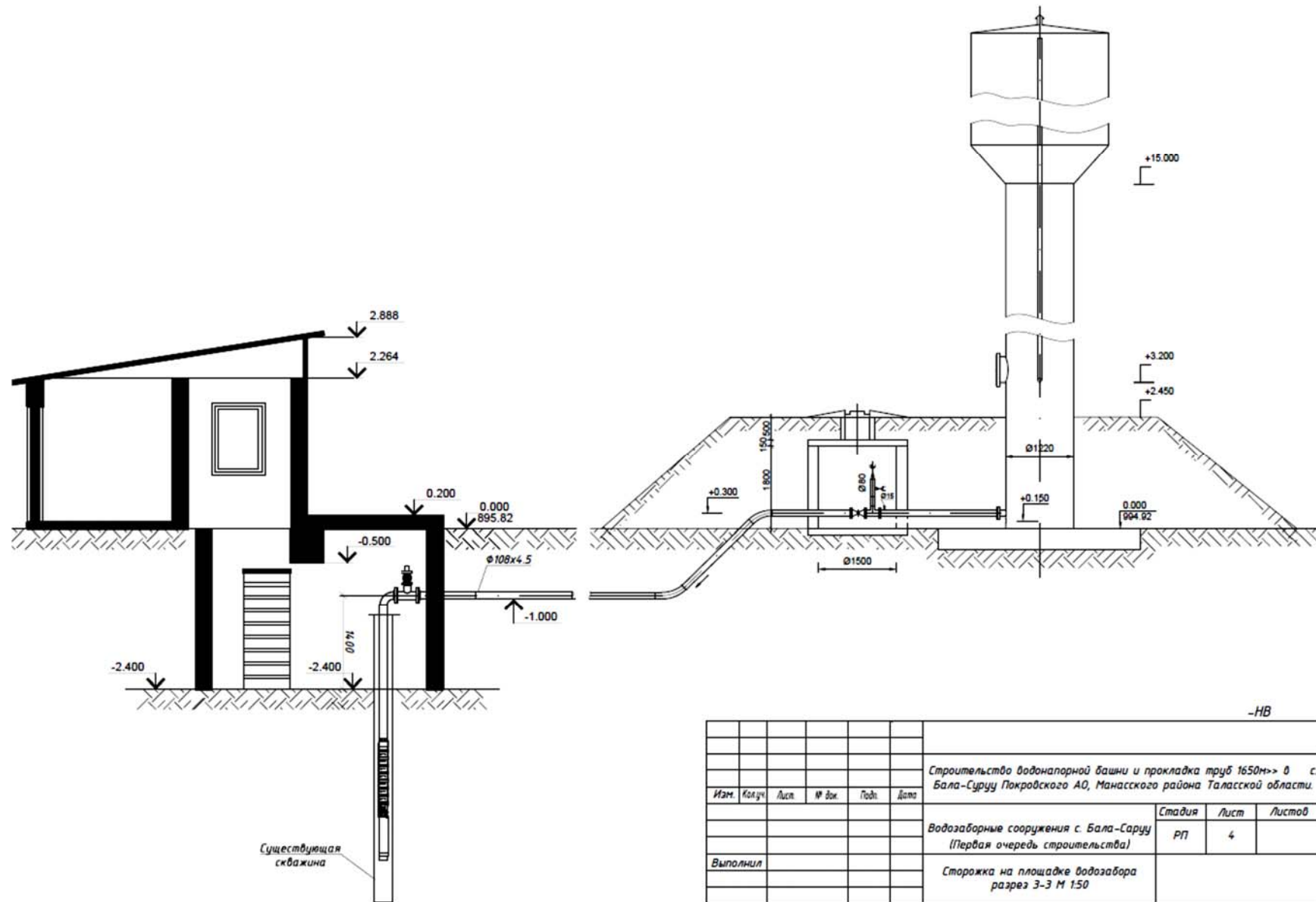
Priming and painting of metal surfaces

- Painting metal primed surfaces with lacquer;
- Paintwork of metal details including the cost of materials;
- Priming surfaces including the cost of materials.

Other types of construction work

- Demolition of asbestos-cement roof;
- Assembly of roof coat from profiled sheet;
- Installation of runs;
- Improved plasterwork by cement-lime mortar;
- Painting by water paints inside the building;
- Demolition and assembly of wooden window frames;
- Installation of window stools.

Image 4. Gatehouse on the water intake area, fragment of the detailed design



5. MITIGATION OF SOCIAL RISKS

On August 7, 2019 public hearings were held to discuss ESMP. Construction design of the water tower and water supply network with a length of 1650 m was presented on the meeting. (Meeting minutes are provided below). Construction period will be about 2 months. The works may fall on October-November, 2019. To mitigate construction impact on population life activities as well as to prevent injuries the construction site will be fenced. Water supply may be stopped for a short time period during connection of a new water tower. This will be additionally communicated to the population. Before connection water will be supplied without any changes in the existing schedule.

Construction works will cause short-term adverse environmental impacts on air and noise level. The environmental issues such as construction dust and wastes as well as safety of the workers and population will be temporary and can be mitigated by performing appropriate mitigation and/or prevention measures. All equipment and materials shall have Quality Certificate. No adverse impacts on the natural habitat, protected zones, historical and cultural facilities are expected.

Implementation of the micro-project will have a positive social impact on the whole village population. Unlimited access to clean drinking water will improve living conditions of 40 families without access to water and secure the villagers against various types of diseases.

6. ESMP OBJECTIVES AND SCOPES

ESMP is an obligatory document to be complied with during the micro-project implementation. ESMP consists of a set of mitigation measures, monitoring and institutional responsibility to be applied during implementation and operation to eliminate adverse environmental and social impacts, their compensation, or decrease down to acceptable degree. ESMP describes mitigation measures for typical impacts resulted by the replacement of windows and doors including labor safety and safety measures, repair, collection and disposal of solid and construction wastes.

ARIS together with LSGB is responsible for monitoring of compliance of all project financed activities with Environmental and Social Safeguards Policy of the World Bank applied to VIP-3, as well as per the requirements of national law of the KR. **Environmental monitoring of the works (Section 10) will be carried out according to the ESMP Section** described in this document. Environmental and social monitoring is a regular inspection of micro-project sites where physical activities are carried out and follow-up of ESMP performance.

The contractors are obliged to comply with ESMP. Construction contractor should have a special staff responsible for ESMP performance at the construction stage. ARIS specialist on-site will trace mitigation measures to be carried out and fair practice to be complied with the prescribed document, and in case of any violation he/she will notify the contractors on revealed issues and require correction measures. ESMP will be included into bid document for work performance, and, thus, the contractors will have to comply with ESMP requirements.

7. HAZARDOUS WASTE MANAGEMENT

During repairs, hazardous waste containing asbestos or mercury can be generated. Asbestos-cement waste and materials can be presented in the form of a slate roofing. Mercury is contained in fluorescent lamps, which are used to illuminate a building.

Handling Asbestos. Asbestos is a natural fibrous material that was widely used in buildings and other infrastructure in the 20th century because of its strength and resistance to fire and heat. Asbestos is commonly used in corrugated roofing sheets and asbestos-cement pipes.

All types of asbestos fibers have a risk to human health. As a rule, a greater risk arises when working directly with asbestos or when asbestos-containing material is destroyed, for example, broken edges of asbestos-cement pipes or broken roofing sheets. Therefore, certain precautions are required.

7.1 Asbestos-Based Waste Management

The most probable risk is possible during the extraction and transportation of slate waste and possibly asbestos-cement pipes that will be returned by the Contractor for their further disposal. Those involved in the disposal of asbestos-cement materials will be at risk of exposure to asbestos.

The World Bank Guidelines for the Management of Asbestos and Asbestos Materials state that repairs or removal and disposal of asbestos materials should only be carried out by specially trained personnel.

Asbestos Safety

When asbestos is present on a project site, it should be clearly identified as hazardous material. Asbestos-containing materials should not be subjected to cutting or damage, as this will lead to dust formation. During the reconstruction, all workers should avoid crushing / damage to asbestos-containing wastes. Such waste must be stored in designated areas within the construction site and properly disposed in a special place. If asbestos-containing wastes are to be temporarily stored at the facility, they must be properly contained in sealed containers and labeled accordingly as hazardous material. Precautions should be taken to prevent any unauthorized disposal of such waste from the site. All asbestos materials should only be handled and disposed by qualified and experienced personnel. Personnel should wear appropriate personal protection (masks, protective gloves and work clothing). When handling asbestos waste, workers must always wear special protective clothing, gloves and respirators. When handling asbestos waste, workers must always wear special protective clothing, gloves and respirators.

Before removing (if necessary) asbestos from the site, it should be treated with a wetting agent to minimize the release of asbestos dust. Removed asbestos should never be reused. In the area where asbestos work is carried out, no strangers should be present. Workers should be informed of the health hazards of asbestos. All workers must be provided with personal protective equipment: respirators, helmets, eye-protection goggles, safety shoes. When loading or unloading slate, hooks and other sharp devices must not be used so as not to destroy the roofing sheets. It is not recommended to drop roofing sheets from a height during construction work.

When roofing sheets are destroyed during work, it is necessary to moisten the waste in order to prevent the formation of dust. Small asbestos waste should be collected in a container and stored closed until it is removed from the construction site. Transportation of asbestos materials to the disposal or storage site should be carried out safely. If asbestos materials fall and damage on the way to the disposal or storage site, it is necessary to clean the area from asbestos and take it to the place of its disposal or storage. At the landfill, asbestos-containing waste must be covered with a layer of earth at least 2 m above.

8. ENVIRONMENTAL LAW

The main normative documents regulating the environmental protection activities are:

№	Legal act	ID No. Year adopted	Purpose / content
Key acts of environmental protection legislation			
1	Law "On Environmental Protection"	№53 adopted 1999	It sets basic principles of environmental protection and stipulates legal authorities for creating the environmental quality, environmental monitoring and evaluation. Among environmental standards and norms validated by this law, following are presented as relating to the project: Maximum safe concentration of hazardous substances in the air and in water; Use of natural resources; Maximum safe level of noise and vibration and other physical impacts. The law set requirements for environmental assessment to prevent potential impacts. It prohibits financing and implementation of projects involving the use of natural resources without obtaining the positive opinion of the state environmental expert review.
2	Law on Environmental Expertise	№54 adopted 1999	Is a principal law in relation to EA. It is meant to prevent adverse impact on the public health and environment resulting from economical and other activity, and to ensure that such activity is in compliance with Kyrgyz environmental management requirements.

3	Law on General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic»	N151 adopted 2009	Sets general technical guidance for ensuring ecological safety during design and operation of economic and other activities for all legal entities and individuals.
4	Enactment of procedure for environmental impact assessment in the Kyrgyz Republic	№ 60 dated 13.02.2015	Sets order of EIA of intended activity. The aim of EIA is to prevent and/or mitigate impacts by intended activity and associated social, economical and other consequences.
5	Law on air protection	№51 adopted 1999	Guides relations in use and protection of air.
6	Law on Production and consumption waste»	№89 adopted 2001	Sets national policy for disposal of production and consumption wastes and is aimed to facilitate prevention of negative impact on the environment and human health, and maximum recycling as a source of additional raw materials.
7	Law on protection and use of flora	№53 adopted 2001	Sets legal framework for efficient protection, reasonable use and reproduction of flora
8	Law on local self-governance and local state	№101 adopted 2011	Sets principles for local governance at the level of administrative territorial units
Law on access to information			
9	Law on access to information from state authorities and local government	№213 dated 28.12.2006	It regulates rights and responsibilities of state authorities to deliver information to public towards achieving the transparency of their work.

In addition to the above legislation, there is a number of regulatory documents defining the requirements for the import, registration, risk assessment of chemicals and wastes, assessment of the impact of economic activity on the environment and health.

Resolution of the Government of the Kyrgyz Republic № 279 dated July 13, 1995 "On the National Register of Potentially Toxic Chemicals".

The order of state registration of potentially toxic chemicals.

SanPiN 2.1.7.010-03 "Sanitary Requirements to Disposal of Production and Consumption Wastes"

SanPiN "Sanitary and Epidemiological Requirements to installation, maintenance and organization of working conditions in pre-school institutions" RGoKRR № 201 dated April 11, 2016

The legislative acts listed above set forth the following key tasks on environment protection:

- Obligatory State Environmental Review (expertise);
- Natural resources management standards;
- Protection of atmospheric air, land and water from pollution and exhaustion;
- Improvement of environmental monitoring system;
- Norms of maximum safe levels of noise, vibration and other hazardous physical impacts

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Environmental and Social Aspects	Impact	Proposed measures to mitigate the environmental impact ¹	Institutional responsibilities for the implementation of measures	The cost of mitigation measures ²
Construction period 2 months				
Physical environment				
Soil	Construction debris	<ul style="list-style-type: none"> - Sort all types of waste, reuse and recycle, if possible. - Disposal of waste that cannot be reused or recycled; removal and disposal of waste to separate dumps in cooperation with a local company for waste disposal; banning open burning of garbage. - Mineral waste from construction and demolition work should be separated from the general and organic waste, liquid and chemical waste must be sorted and stored in special containers. - All documents on the removal and disposal of wastes should be documented properly as evidence of proper disposal of garbage at the site. - The resulting construction and household waste will be disposed in the places specially designated by municipal authorities, those that can be reused, will be recycled (scrap metal, wood waste, etc.); - Install containers for solid waste collection on the territory of school; 	<p>The Contractor shall be responsible for the implementation of mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities.</p> <p>ARIS specialists, oblast technical supervision are responsible for general supervision</p>	<p>Criteria / specifications to be included in the tender and contract documents.</p> <p>Not regarded as a separate item of expenditure</p>

¹Activities requiring financial costs should be provided in BOQ,

		<ul style="list-style-type: none"> - Installation of bio toilet for the workers; -Solid wastes and construction debris will not be burnt at construction sites; 		
	Chlorine-containing reagents	<ul style="list-style-type: none"> - Place and conditions of discharge in accordance with the design; - Place and conditions of discharging chlorine-containing reagents to be agreed with LSGB, sanitary and epidemiologic surveillance, environmental authorities; -Reuse chlorinated water for disinfection -Dechlorination by sodium hyposulphate -Dilute with water up to active chlorine concentration 2 -3 mg/l. 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities</p> <p>SES, ARIS specialists, regional supervision are responsible for general supervision</p>	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
	Loss of top soil causing increased land erosion.	<ul style="list-style-type: none"> - Removal of top soil on water intake area, transportation and placing it on the earth deposits to store in special places for further use to restore damaged lands 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities</p> <p>ARIS specialists, regional supervision are responsible for general supervision</p>	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
	Contamination of soil with oil products on the construction site	<ul style="list-style-type: none"> - prohibit parking of construction machinery and storage of oil and fuel on the water intake area - Control temporary storages of fuel, oils and other specific substances to prevent their spillage, use drip plates under the tanks. -When drilling boreholes, collect clay mortar into metal gauging tanks after using in a closed 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities</p>	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure

		<p>circulation system, bury sludge and waste waters in a special trap holes</p> <ul style="list-style-type: none"> - use bitumen mastic for the method of cold waterproofing - Use palettes during waterproofing - Clean the site from bitumen spillages - Prevent from getting into open water sources 	<p>ARIS specialists, regional supervision are responsible for general supervision</p>	
Water resources	Contamination of surface and underground waters by oil products and construction wastes	<ul style="list-style-type: none"> - Use only a separate area. - Basic proper building standards and standards applied during construction. - Daily check of equipment for oil leaks; ban on washing machines at the construction site. - Trash crowding with contamination. 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities</p> <p>ARIS specialists, regional supervision are responsible for general supervision</p>	<p>Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure</p>
	Impact of domestic waste water discharged from temporary workers' camp.	<ul style="list-style-type: none"> - Sanitary cleaning of territory allocated for construction works and territories allocated for workers. 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities</p> <p>ARIS specialists, regional supervision are responsible for general supervision</p>	<p>Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure</p>
	Impact caused by the release of oil products when operating transport vehicles	<ul style="list-style-type: none"> -Prohibition of washing cars and vehicles on the construction site. -Daily inspection of the equipment for oil leakage. 	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities</p> <p>ARIS specialists, regional supervision are responsible for general supervision</p>	<p>Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure</p>

	Contamination of water bed during drilling.	-annular cementing of pay strings; - -removal of filter cake by washing with clean water, bailing and swabbing.	The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities ARIS specialists, regional supervision are responsible for general supervision	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
Air quality	Dust during construction. Low quality of internal air Odors	Measures for dust suppression and related activities such as spraying water or other measures; appropriate storage of finishing materials, ventilation of the premise, appropriate planning, location and removal of wastes	The Contractor shall be responsible for the implementation of mitigation measures. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision are responsible for general supervision	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
	Impact of car and vehicle exhausts on human health and environment. Contamination of atmosphere (CO, NO _x , dust, etc.) caused by construction and more intensive traffic	Minimize dust and transport exhausts by proper work management and control on the construction sites, including: - watering roads (wet dust suppression during excavation, damping fill materials on the construction site with special tank cars); - limit idling machinery - apply machinery with electric drive, without use of petrol and diesel. -speed limit of transport vehicles and select appropriate transport routes to minimize impact on the dust-sensitive receptors. -cover fill materials on the construction site	The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities ARIS specialists, regional supervision are responsible for general supervision.	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure

		-transport cement to the construction site on packed air-proof sacks		
Hazardous wastes	Asbestos containing wastes	<ul style="list-style-type: none"> - Instruct on asbestos demolition - Works to be performed by trained staff - Prohibit to crush and destruct asbestos slates - Waste management 	The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities ARIS specialists, regional supervision are responsible for general supervision.	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
Biologic impact				
Fauna and flora	Cutting trees and shrubs	Trees and shrubs are allowed to be cut only with permitting documents from LSGB, agreeing with environmental authorities.	<p>The Contractor shall be responsible for the implementation of environmental mitigation measures.</p> <p>The technical supervision is responsible for monitoring and supervision activities</p> <p>ARIS specialists, regional supervision are responsible for general supervision.</p>	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
Social environment				
Esthetics and landscape	Not considered as the works are performed in the building			
Communities	Complaints	- installation of informational banners on construction sites	The Contractor shall be responsible for the implementation of environmental mitigation measures. The technical supervision is responsible for monitoring and supervision activities ARIS specialists, regional supervision are responsible for general supervision.	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
	Flow of labor force	- Recruitment of workers living at work production area (if possible);	The Contractor is responsible for this function.	Criteria / specifications to be included in the tender and contract documents.

		<ul style="list-style-type: none"> - Signing labor contracts with the workers 	<p>The technical supervision is responsible for monitoring and supervision activities.</p> <p>ARIS specialists, regional technical supervision are responsible for general supervision</p>	Not regarded as a separate item of expenditure
Cultural heritage	Archaeological findings	<ul style="list-style-type: none"> - In case of discovering any archaeological artefacts, the works should be stopped and the appropriate authorities shall be informed about the discovery 	<p>The Contractor is responsible for this function.</p> <p>The technical supervision is responsible for monitoring and supervision activities.</p> <p>ARIS specialists, regional technical supervision are responsible for general supervision</p>	Criteria / specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure
Safety of workers and residents	Traumas and industrial accidents at work production sites when applying tools and equipment	<ul style="list-style-type: none"> - Compliance with CR KR 12-01:2018 Labor safety in construction; - Providing builders with special clothes and PPE; - Instructing the workers: (a) instruction on safe work; (b) safety requirements; (c) principles of alarm system; - Compliance with fire safety: preparing and applying fire extinguishers, sand and water. - Availability of permit for electric works. - Staff not related to the construction works shall be prohibited to enter the construction zone 	<p>The Contractor is responsible for this function.</p> <p>The technical supervision is responsible for monitoring and supervision activities.</p> <p>ARIS specialists, regional technical supervision are responsible for general supervision</p>	Without additional costs: general responsibility of the Contractor
	Infliction of harm to the workers and other people due to violation of safe waste storage	<ul style="list-style-type: none"> - Before transporting construction waste to the special dump, it shall be stored in a safe allocated zone. 	<p>The Contractor is responsible for this function.</p> <p>The technical supervision is responsible for monitoring and supervision activities.</p>	

			ARIS specialists, regional technical supervision are responsible for general supervision	
	Limited access way to residential and business districts due to excavation works.	-Maximum reduction of construction period. - Provide crossings and/or alternative access roads.	The Contractor is responsible for this function. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision are responsible for general supervision	
	Increasing number of traffic accidents due to excavation works, use of heavy machinery and growth of traffic	- Arrange temporary bypass roads for construction period, identify and ensure the compliance with speed limits. -Install warning and prohibiting road signs in dangerous places.	The Contractor is responsible for this function. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision are responsible for general supervision	
	Noise impact	- Pressure vehicles and equipment to limit the noise level down to 70 dB within 100 m corridor - Limit construction works with heavy machinery near residential districts at night (from 22:00 to 6:00). - Work only on week days during standard work time.	The Contractor is responsible for this function. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision are responsible for general supervision	
Operation period				
Physical environment				
Soil	Soil erosion if structural integrity is damaged	Regular technical maintenance	CDWUU, Aiyl Okmotu	
Water resources	Damage of water pipelines integrity	Regular technical maintenance	CDWUU, Aiyl Okmotu	
Air quality	Not expected		CDWUU, Aiyl Okmotu	

<i>Biologic environment</i>				
<i>Flora and fauna</i>	<i>Not expected</i>		CDWUU, Aiyl Okmotu	
<i>Social environment</i>				
<i>Esthetics and landscape</i>	<i>Not expected</i>		CDWUU, Aiyl Okmotu	
<i>Cultural heritage</i>	<i>Not expected</i>		CDWUU, Aiyl Okmotu	
<i>Safety of workers and residents</i>	<i>Not expected</i>		CDWUU, Aiyl Okmotu	

9. MONITORING PLAN

Implementation stage of sub-projects/micro-projects	Which parameter should be monitored ?	Where the monitoring should be conducted ?	How the monitoring is conducted? <i>/type of equipment for monitoring</i>	When? (Frequency)	Cost of monitoring ¹³ (cost of equipment or amount of contractor's expenses required for monitoring?)	Institutional responsibility for monitoring	Starting date
Construction	Noise Air Transport Waste utilization and storage Contamination of soil and water	At the construction site and dump At and near the construction site At the construction site and dump At the construction site	Portable Sound Level Meters Portable measuring instruments Visually According to the plan and review. Visually and using the measuring devices Visually	If complained by population Weekly Constantly According to the plan, but at least weekly Constantly	Criteria/specifications to be included into bid and contract documentation. Not regarded as a separate item of expenditure	1. Inspection of the construction site is carried out by the ARIS to ensure compliance with the ESMP. 2. The state inspectors of the Architectural and Construction Supervision Department (ACSD) will carry out supervision over implementation of the engineering solutions during construction and installation works or during the reconstruction of facilities, as well as over the quality of construction materials and structures. They will participate in the commissioning of the completed facilities. 3. SETI is the entity to carry out state environmental supervision that has the right to perform supervision	After the transfer of the facility to the Contractor.

	Dismantling of construction site	At the construction site At the construction site	Visually	According to the plan Constantly		following the established procedure after providing relevant identification documents in accordance with environmental regulations, standards, environmental protection measures during project implementation.	
	Safety of workers and local residents						

10. INFORMATION ABOUT BFM AND GRM

All project stakeholders may appeal to ARIS BFM regrading VIP-3 implementation and have the following rights:

- Right to information;
- Right against inappropriate intervention by an outside party;
- Right to participate in the project bid free of fraud and corruption.

Any VIP-3 stakeholder (including villagers, contractors, project staff, authorities, and other involved parties) may file a grievance if s/he believes one or more of these rights have been infringed, or if any of the project's principles and procedures has been violated.

Grievances are disclosed publicly, but no one who files a grievance is identified unless they self-identify. The identity of all those who have filed grievances is treated confidentially.

Grievance redress mechanism

Logging of feedback. *Appeals received by written correspondence or verbal report* are included in the log of BFM and are entered into GRM configuration in 1C program to analyze and monitor incoming correspondence with the following information (depending on what is provided):

- Name and surname;
- Registration and residential address or telephone number;
- Contents of the request;
- Other background information.

The appeals may be submitted anonymously. In cases where the appeals were received in the absence of any of the above data, it is recorded in the log of incoming correspondence of the BFM, and the results of the appeal will be published in the media at the local level, on the ARIS website or made public at the session of the AK.

Follow up. Once the investigation is complete, the beneficiary will be notified of the decision made by ARIS regarding their case. The citizen/beneficiary has a right to appeal is not satisfied with the resolution of the case. Instructions on appeal will be provided with the response.

Appeals. Appeals are considered by the ARIS special Review Committee. The Executive director of ARIS will form the Review Committee from project managers and head of departments that will conduct appeal hearings. After review of the appeal the citizen/beneficiary unsatisfied with the solution received has a right to appeal against the decision in court.

Publication of the Appeals. After the APPEAL (applications, suggestions, complaints, requests, positive feedback) is resolved to encourage BFM use, measures taken to resolve the appeal will be published in mass media at the local level. Upon request the identity of an appealing person will be kept in secret.

Feedback channels. Within ARIS VIP-3 the following feedback channels are set to allow the residents/beneficiaries send their appeals at different stages of the project implementation:

- a. WhatsApp (a system of immediate exchange of text messages for mobile devices with audio and video calls – BFM numbers + 996 550 700 522; +996 770 700 522);
- b. Social media (Facebook – Official account of “Community Development and Investment Agency”;
- c. ARIS web-site: www.aris.kg;
- d. Verbal or written appeals received during work meetings of facilitators, curators and/or CDSO on-site;
- e. Incoming correspondence delivered to ARIS reception; incoming correspondence to the e-mail

bfm@aris.kg.

11. MINUTES OF PUBLIC HEARINGS

“Construction of water tower and water supply network (1650 m) in Bala-Saruu v.”

August 7, 2019

Bala-Saruu v.

Number of attendees: 41 people, including 15 women

Chair of the meeting: Satishev B. M.

Secretary of the meeting: Turalynov A. E.

Agenda:

Introduction to ESMP of MP “Construction of water tower and water supply network (1650 m) in Bala-Saruu v.”

Discussion and approval of ESMP of MP “Construction of water tower and water supply network (1650 m) in Bala-Saruu v.”

The meeting began with the introductory speech of the Deputy Head of Pokrovka AO, Satishev Bolot. In his speech he briefly explained the agenda and introduced CDSO, Polotov R.

The CDSO, Polotov R. provided detailed information about objectives and tasks of ESMP, introduced the main provisions of the environmental and social security laws and regulations, provided brief information on scope of the planned works and temporary inconveniences during their performance.

After Polotov’s speech the villagers asked their questions and expressed their opinion. Niyazbekov Altynbek asked about construction starting date and regulation of drinking water consumption. Polotov explained that some project implementation issues are on the stage of WB approval. Once these are approved, the project implementation will be started. Regarding water consumption control, Chair of CDWUU, Turalynov A. suggested to install a water meter in each household and charge according water meter readings. This suggestion was approved by the villagers.

Abdiev Abalbek clarified the specifications of water tower and pipes. Polotov informed that the height of water tower supports is 15 m, volume of the water tank is 50 m³. PE pipes with a diameter of 63 mm will be used for the water network.

Sarybaev Urmat: Will water supply be limited during the construction?

CDWUU Chair, Turalynov A.: Water supply will be limited by the end of construction when new water tower will be connected to water supply network. I do not think it will take much time.

Subanbekova Guljamal, villager asked about in-house connection to the water supply network.

Polotov explained that the project provides only extension of the water supply network. In-house connection should be made by the villagers.

Batyrbekov Kalan, villager expressed his gratitude to ARIS, AO and CDWUU for resolving this urgent issue in the village.

Decision:

Approve ESMP of MP “Construction of water tower and water supply network (1650 m) in Bala-Saruu v.”

Comply with the ESMP during micro-project implementation.

Chair of the meeting

/signature/

Satishev B.

Secretary of the meeting

/signature/

Turalynov A.

ПРОТОКОЛ

общественного слушания по обсуждению ПУОС МП «Строительство водонапорной башни и прокладка водопроводной сети 1650 м. в селе Бала-Саруу»

7 августа 2019 года

село Бала-Саруу

Количество участников: 41, из них 15 женщин

Председатель собрания: Сатишев Б.М.

Секретарь собрания: Туралынов А.Э.

ПОВЕСТКА ДНЯ:

1. Ознакомление с ПУОС МП «Строительство водонапорной башни и прокладка водопроводной сети 1650 м. в селе Бала-Саруу»;
2. Обсуждение и согласование ПУОС МП «Строительство водонапорной башни и прокладка водопроводной сети 1650 м. в селе Бала-Саруу».

1. Собрание открыл заместитель главы Покровского айыл окмоту **Болот Сатишев**. В своем выступлении он разъяснил участникам вопросы повестки и представил ЭПРО Полотова Р.

ЭПРО Полотов Руслан подробно предоставил информацию о целях и задачах Плана управления окружающей средой. Ознакомил с руководящими НПА по охране окружающей среды и обеспечению социальной безопасности. Вкратце ознакомил с объемом предстоящих работ и проинформировал о временных неудобствах при их выполнении.

После выступления Полотова Р., поступили вопросы и пожелания от жителей села Бала-Саруу. Так, **Ниязбеков Алтынбек** интересовался сроками начала работ и как будет контролироваться расход питьевой воды. **Р.Полотов** объяснил, что в данное время некоторые вопросы по реализации проектов на стадии согласования с ВБ. Как только эти мероприятия завершатся, начнется реализация проектов. По поводу контроля расхода воды **председатель СООППВ Туралынов А.** предложил жителям установить в каждом доме счетчики и взимать плату согласно их показаниям. Данное предложение было одобрено участниками.

Абдиев Абалбек уточнил характеристики планируемой башни и труб. **Р.Полотов** сообщил, что высота опорных стоек башни составляет 15 м., объем емкости для воды 50м³. Для прокладки водопроводной сети будут использованы полиэтиленовые трубы диаметром 63мм.

Сарыбаев Урмат-педагог: Будет ли ограничена подача воды во время проведения работ.

Председатель СООППВ Туралынов А: Ограничение подачи воды планируется к концу работ. Так как мы не станем убирать действующую башню. Отключение будет при вводе в эксплуатацию новой башни. Думаю, это не должно занять много времени.

Вопрос жительницы села **Субанбековой Гульжамал** касался подключения дворов к водопроводной сети. **Р.Полотов** объяснил, что в рамках проекта предусмотрено лишь удлинение действующих сетей. Подвод к домам будет осуществляться своими силами.

Житель **Батырбеков Казан** поблагодарил АРИС, айыл окмоту и СООППВ села за решение самой острой на сегодняшний день проблемы села.

РЕШЕНИЕ:

1. Одобрить План управления окружающей средой МП «Строительство водонапорной башни и прокладка водопроводной сети 1650 м. в селе Бала-Саруу»;
2. При реализации микропроекта руководствоваться Планом УОС.

Председатель собрания:

Б.Сатишев

Секретарь собрания:

А.Туралынов

12. LIST OF PARTICIPANTS

Айлана чойрону банкаруу планын талкуулоо боюнча коомдук угуунун
катышуучуларын каттоо барагы

“02” август 2019-ж.

Бала-Саруу айылы

№	Аты-жөнү	Эркек/аял	Кызмат орду	Телефон	Колу
1	Батырбеков К.А	Эркек	Эмгекчил		
2	Тамаша Ю.Н	Аял	Эмгекчил		
3	Мурзаев Б.Н	Эркек	Эмгекчил		
4	Нуртенов А	-11-	Эмгекчил		
5	Мамедов А	-11-	Эмгекчил		
6	Факеев С.	-11-	Эмгекчил		
7	Абдыраманов Б.З	-11-	Эмгекчил		
8	Сарташев Н.	-11-	Эмгекчил		
9	Исмаилов Н.	-11-	Эмгекчил		
10	Курманов Б.	-11-	Эмгекчил		
11	Мирзахмедов Б.	-11-	Эмгекчил		
12	Бекмамбетов Б.	-11-	Эмгекчил		
13	Орозбаев Т.	-11-	Эмгекчил		
14	Абдыраманов С.	-11-	Эмгекчил		
15	Сарташев А.	-11-	Эмгекчил		
16	Абдыраманов С.	-11-	Эмгекчил		
17	Абдыраманов А.	-11-	Эмгекчил		
18	Абдыраманов Б.	-11-	Эмгекчил		
19	Абдыраманов Б.	-11-	Эмгекчил		
20	Абдыраманов Т.	Аял	Эмгекчил		
21	Абдыраманов Т.	Аял	Эмгекчил		
22	Абдыраманов Т.	Аял	Эмгекчил		
23	Абдыраманов Т.	Аял	Эмгекчил		
24	Абдыраманов Т.	Аял	Эмгекчил		
25	Абдыраманов Т.	Аял	Эмгекчил		
26	Абдыраманов Т.	Аял	Эмгекчил		
27	Абдыраманов Т.	Аял	Эмгекчил		
28	Абдыраманов Т.	Аял	Эмгекчил		
29	Абдыраманов Т.	Аял	Эмгекчил		
30	Абдыраманов Т.	Аял	Эмгекчил		
31	Абдыраманов Т.	Аял	Эмгекчил		
32	Абдыраманов Т.	Аял	Эмгекчил		
33	Абдыраманов Т.	Аял	Эмгекчил		
34	Абдыраманов Т.	Аял	Эмгекчил		
35	Абдыраманов Т.	Аял	Эмгекчил		
36	Абдыраманов Т.	Аял	Эмгекчил		
37	Абдыраманов Т.	Аял	Эмгекчил		
38	Абдыраманов Т.	Аял	Эмгекчил		
39	Абдыраманов Т.	Аял	Эмгекчил		
40	Абдыраманов Т.	Аял	Эмгекчил		
41	Абдыраманов Т.	Аял	Эмгекчил		

Председатель собрания:



Б.Сатимов

13. PHOTOS OF PUBLIC HEARINGS



14. SOCIAL RISK AND IMPACT ASSESSMENT CHECK LIST

Чеклист по скринингу для оценки социальных рисков и воздействий от под-проектных мероприятий

Название ~~под-проекта~~/микропроекта Выселение в фермерской долине и поселка Кувара 16.50м
 Область Татарстан
 Район Актюбинский
 Айылный аймак Актюбинский
 Айыл Балаково

Возможные Социальные Воздействия	Да	Нет	Предоставить детали/кол-во, если возможно
1. Будут ли проектные мероприятия включать новые физические строительные работы?	✓		
2. Включают ли мероприятия улучшения или реабилитацию существующих объектов?	✓		
3. Вероятно ли, что мероприятия вызовут непоправимый ущерб или утрату домовладений, других активов, использования ресурсов?		✓	
4. Выбранный участок для работы свободен от обременений и находится во владении Общественности/правительства/общества?	✓		
5. Требуют ли под-проектные мероприятия приобретения частных земель?		✓	
6. Если участок находится на частной территории, может ли эта земля быть приобретена путем переговоров (по обоюдному согласию)?			не требуется
7. Если требуется приобрести земельный участок, известен ли размер участка и каков статус права собственности?			не требуется
8. Приводят ли мероприятия под-проекта к ограничению доступа к другим жителям/пешеходам/коммерческой деятельности и торговле?		✓	
9. Доступна ли земля для мобилизации и транспортировки строительных материалов в пределах существующего участка/имеется ли право проезда?	✓		
10. Проживают ли/занимаются ли предпринимательской деятельностью non-titled люди на передаваемой территории/проектном участке под строительство?		✓	
11. Вероятны ли временные воздействия?	✓		
12. Имеется ли возможность переноса, закрытия предпринимательской/коммерческой/хозяйственной деятельности лиц во время строительства?			не требуется
13. Имеются ли временные или постоянное физическое перемещение лиц в связи со строительством?		✓	
14. Включает ли этот проект переселение каких-либо лиц? Если да, предоставьте детали.		✓	
15. Будет ли потеря/ущерб сельскохозяйственным землям, несобранному урожаю, деревьями?		✓	

16. Будет ли потеря доходов и средств существования для кого-либо в связи с проектными мероприятиями?		✓	
17. Будет ли для людей потеря доступа к объектам, услугам или природным ресурсам постоянным или временным?		✓	
18. Приведет ли проект к потере трудоустройства/работы?		✓	
19. Вызовет ли проект чрезмерный приток рабочей силы в результате строительства	✓		
20. Требуя ли строительные мероприятия дополнительной/нааифицированной рабочей силы извне	✓		
21. Вызовут ли под-проектные/строительные мероприятия разрушения/беспорядки среди местного проживающего населения		✓	
22. Создадут ли строительство новых зданий, дренажный канал, линии электропередач износ/повреждение общественных зданий/ресурсов/прилегающих домов, колодец, земель, мест захоронений, детских парков, школ и т.д.		✓	
23. Приведут ли проектные мероприятия к снижению рабочей силы (сокращению рабочих штатов) какого-либо органа		✓	
24. Приведут ли проектные мероприятия к непреднамеренным последствиям, таким как несчастные случаи/разрушения прилегающих зданий	✓		
25. Имеются ли уязвимые группы, которые могут быть повергнуты негативным воздействиям (включая коренные группы населения) в результате проектных мероприятий?		✓	

Канатбаев С. Сагдулов

SOCIAL RISK AND IMPACT ASSESSMENT CHECK LIST

Name Construction of water tower and laying of pipes 1650 m

Oblast Talas

Rayon Manas

Ayl Aymak Pokrovka

Village Bala-Saruu

Probable Social Impacts	Yes	No	Provide details/Numbers, if possible
1. Will the intervention include new physical construction work?	x		
2. Does the intervention include upgrading or rehabilitation of existing facilities?	x		
3. Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?		x	
4. Is the site chosen for this work free from encumbrances and is in possession of the Public/government/community land?	x		
5. Is this sub project intervention requiring private land acquisitions?		x	
6. If the site is privately owned, can this land be purchased through negotiated settlement? (Willing Buyer – Willing Seller)			No need
7. If the land parcel has to be acquired, is the actual plot size and ownership status known?			No need
8. Are the subproject cause any access restriction to the commuters/pedestrians/ business and trades?		x	
9. Is land for material mobilization or transport for the civil work available within the existing plot/ Right of Way?	x		
10. Are there any non-titled people who are living/doing business on the proposed site/project locations that use for civil work?		x	
11. Is any temporary impact likely?	x		
12. Is there any possibility to move out, close of business/commercial/livelihood activities of persons during constructions?			No need
13. Is there any temporary or permanent physical displacement of persons due to constructions?		x	
14. Does this project involve resettlement of any persons? If yes, give details.		x	
15. Will there be loss of /damage to agricultural lands, standing crops, trees?		x	
16. Will there be loss of incomes and livelihoods for anyone due to project intervention?		x	
17. Will people permanently or temporarily lose access to facilities, services, or natural resources?		x	
18. Will project cause loss of employments/jobs		x	
19. Will project generate excessive labor influx as a result of new constructions	x		
20. Does construction activities require additional/skilled labor from outside the locality	x		

21. Will subproject/construction activities cause destruction/disturbance to host community living		x	
22. Will construction of new buildings, drainage lines, powerlines create any degradation/disturbances for public buildings/resources/ adjacent houses, wells, lands, Burial places, children parks, schools etc		x	
23. Will this intervention generate downsize in current labor force(retrenchments) of the agency		x	
24. Does intervention may cause unintended consequences such as accidents/ damages to adjacent buildings	x		
25. Are any vulnerable groups who may affect adversely (including indigenous people) due to the project intervention?		x	