

Site specific environmental management plan -
Inter-farm canal and ancillary works for the Saparbayev irrigation system.
Contract NCB No. SAWR-W-NCB-2 Lot No. 2

Kyrgyz Republic:
Water Resilience to Climate Change and Disaster
Resilience Project (L3746/G0632-KGZ)

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Consultant: Temelsu International Engineering Services Inc " - Mott
MacDonald Joint Venture (PIC)

December 2022

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Abbreviations

ACM	Asbestos containing materials
ADB	Asian Development Bank
DWMD	district water management department (rus.RUVKh)
EIA	Environmental impact assessment
GDRS	General Directorate for Road Safety (rus.GUOBDD)
HCF	Historical and cultural finds
OHSE	Occupational health and safety
ICE	Internal combustion engine
IPM	Individual protection means
KM/GoKR	Cabinet of Ministers/Government of the Kyrgyz Republic
LG	Local governments
MACs	Maximum allowable concentration - average daily
MES	Ministry of Emergency Situations
MPC	Maximum Permissible Concentration
MPCmr	Maximum allowable concentration - maximum one-time concentration
NGOs	Non-Governmental Organizations
OCH	Objects of historical and cultural heritage
OP	oil products
PIK	Project Implementation Consultant
PIU	Project Implementation Unit
SEE	State ecological expertise
SPNA	Specially protected natural area (rus.OOPT)
SPZ	sanitary protection zone
SSEMP	Site specific environmental management plan (rus.PUOSKU)
SSES	State Sanitary and Epidemiological Supervision (rus.GSEN)
SVR	Water Service
TS	Transformer substation
WUA	Association (s) of water users
HW	household waste
m	meter
m ³	cubic meter
m ²	square meter
km	kilometer
m ³ /s	cubic meters per second
ha	hectare
h	hour
sec	seconds
KGS	Kyrgyz som
USD	U.S. dollar

1. Introduction

The Site-Specific Environmental Management Plan (SSEMP) has been prepared under the Water Resilience to Climate Change and Disaster Resilience Project, Kyrgyzstan (KCCDRP), in accordance with the Asian Bank Safeguard Operational Policies and relevant legislation of the Kyrgyz Republic. The main objective of the Asian Bank's Safeguard Operational Policies is to explore all options to mitigate or prevent environmental and social impacts during the construction period, including the operation period.

The main goal of the project is to reduce water seepage losses, improve the distribution and accounting of water in the WUA irrigation network through the necessary measures, technical solutions and hydraulic structures, as well as compliance with environmental requirements for the protection of soils, surface waters, flora and fauna of the design area. This document provides measures to prevent, minimize or reduce any negative impact on the environment and social environment during the reconstruction of canals in their locations.

It should be noted that the reconstruction does not provide for additional land acquisition, since the rehabilitation facilities are located on state lands. When studying the locations, special attention was paid to ensure that there are no informal users or persons carrying out economic activities in the allocated areas, so that the project does not have a negative impact on families, which could lead to loss of income sources due to the suspension of business or other activities. Potential environmental impacts are expected to be low and mostly limited to the construction period.

The SSEMP serves as a management tool to ensure that prevention and mitigation measures are properly implemented and that Bank-recommended activities are monitored and institutionalized during the implementation of the proposed project.

The document provides information on the decisions made during the rehabilitation of the facility with a description of the main construction work. One of the key chapters of the SSEMP is the impact of the project on the environment and measures to mitigate them. This section describes the types and ways to reduce the negative impact of the project on the environment.

The SSEMP presents a screening checklist a facility through which the CRC will monitor the progress of the construction work of the contractor.

The types of environmental and social impacts during construction and operation are shown in sections 4 and 5, which describe the proposed actions and mitigation measures for each environmental and social parameters (soil, water resources, atmospheric air, waste generation, noise impact, safety and health workers and the public, etc.) indicating

the responsible organizations and persons. In order to monitor the impact of construction work on the environment and to take appropriate measures, section 6 has been developed, which indicates the parameters and methods for monitoring the state of the environment.

In addition, the document provides information on: the possible impact of the project on the social environment, which generally improves conditions for workers and residents; on the current legal framework governing the protection and use of natural resources; on the mechanism for considering complaints from citizens, the feedback mechanism.

2. Goals of SSEMP

The purpose of the ESMP is to identify the potential environmental and social impacts of the Project (both positive and negative), determine appropriate preventive actions and mitigation measures (including an appropriate monitoring system) to prevent, eliminate or minimize any expected adverse environmental and environmental impacts. social environment. The SSEMP also includes activities for supervision of work performance and environmental monitoring, as well as a description of the roles and responsibilities of the parties.

The main goal is to ensure that all necessary efforts are paid for to protect the environment, prevent negative social impacts and zero work accidents. To achieve these overall objectives, the Contractor will provide activities and allocate the necessary resources, such as:

- 1) Minimize the impact on the environment, local residents and workforce in terms of biological, physical and socio-economic resources
- 2) Identification of impact and proposal of mitigation measures
- 3) Considering consequences in terms of their spatial and temporal aspects
- 4) Identify potential environmental benefits so that development can improve environmental improvement in the area.
- 5) Determining the measures to be taken and the corresponding responsibilities to ensure that environmental management is of the highest
- 6) Inform staff of your policy
- 7) Provide basic training on environmental, social and occupational health and safety
- 8) Consolidate and further improve environmental, social and occupational health and safety awareness among its workforce
- 9) Ensure compliance with all applicable provisions of laws and regulations specified in the contract, as well as ADB requirements
- 10) Establish operational control over own employees, subcontractors, stakeholders and equipment
- 11) Ensuring continuous improvement in the effectiveness of SSEMP and SMP
- 12) Control of external processes, control and risk management
- 13) Consensus with the Client, Consultant and stakeholders
- 14) Monitor the performance of SSEMP and SMP against your goals

3. General information about the object

3.1. Inter-farm canal and ancillary works for the irrigation system Saparbayev

Saparbayev irrigation system is located in the Nookat district, Osh region. The facility is located in the Nookat district of the Osh region, 60 km from the city of Osh and 25 km from the district center of the city of Nookat. The absolute marks of the object are 1050 - 1370 m above sea level. The Saparbayev-1 main canal originates from the Naiman main canal.

3.2. List of planned works

The work includes the modernization of the main off-farm Saparbayev canal and related facilities (Lot No. 1). A summary of the work to be carried out includes the following:

Component 1.02 - Rehabilitation of Canal Section No. 1 (from PC 27+60 to PC 76+35)

Component 1.03 - Mudflow pass reconstruction (at PC 30+84)

Component 1.04 - Construction of mudflow canal No.: 1.2 (from PK 46+40 to PK 48+80)

Component 1.05 - Construction of mudflow canal No.: 1.3 (from PK 60+20 to PK 64+45)

Component 1.06 - Reconstruction of the waste facility at the mud storages

Component 1.07 - Reconstruction of the aqueduct (at PK 79+70) and reconstruction of the wastewater disposal facility (at PK 76+40)

Component 1.08 - Hydroposts with measuring equipment

3.3. Characteristics of environmental impacts

During the production of works, a series-parallel method of construction will be used. When carrying out rehabilitation measures (construction and repair work at canal facilities), the main types are:

- 1) Earthworks (excavation, backfilling, transportation of soil and work on the dump, leveling and surface preparation) are carried out using specialized earthmoving equipment (excavator, bulldozer, loader), lifting mechanisms (cranes and manipulators) and dump trucks of various carrying capacities;
- 2) Road works - are carried out using specialized equipment (grader, asphalt concrete plant, asphalt paver, road roller);

- 3) Concrete works (concrete preparation device, monolithic reinforced concrete device) are carried out using specialized equipment and installations (concrete mixing plant, mixer, concrete truck, vibrators, rammers, machines for cutting and bending reinforcement,
- 4) Welding works - carried out with the use of special equipment (welding machine, cutting machines, gas cutting machine);
- 5) Installation of equipment – are produced using a special tool park and equipment;

Potential factors of the adverse impact of the project on the environment can be:

- 1) soil contamination during construction and rehabilitation works, including: dumping of sediments and other materials removed from irrigation and drainage canals, as well as during transportation;
- 2) increased pollution of surface waters;
- 3) air pollution with dust and cement, including soil pollution with construction waste due to improper work on the restoration of concrete channels;
- 4) damage to trees and other vegetation along canals;
- 5) barriers to access and movement;
- 6) violation of agricultural activities, as a result of access restriction, soil compaction, excavation;
- 7) waste, noise, dirt and dust on sites and access roads.

3.4. Mitigation of environmental and social impacts

The EMP of the CP aims to ensure that the Project complies with the principles and practices of environmental management, and therefore with the requirements of the environmental policy and laws of the Kyrgyz Republic, and ADB's policies on environmental safeguards. For this purpose, the EMP KP uses the results of the Initial Environmental Expertise Report (EER) and the results of the Environmental Impact Assessment (EIA) Report.

The EMP of the CP serves as a management tool to ensure proper implementation of measures to prevent and mitigate environmental impacts, as well as to monitor and institutionalize recommended activities during the implementation of the proposed Project. The implementation of the EMP of the CP is a guarantee that all proposed measures to prevent / mitigate the consequences of adverse impacts of the Project and activities related to monitoring, which were carried out during the environmental impact assessment, will be properly implemented during the implementation of this Project.

3.5. Regulatory support of activities

The main normative acts that determine the policy in the field of environmental protection are the Constitution of the Kyrgyz Republic, the Law of the Kyrgyz Republic "On Environmental Protection" dated June 16, 1999 No. 53 (as amended by the Laws of the Kyrgyz Republic dated February 4, 2002 No. 22, June 11, 2003 No. 101, August 11, 2004 N 113, August 6, 2005 N 124, April 27, 2009 N 131, March 11, 2013 N 36) and the Law of the Kyrgyz Republic "On Environmental Expertise" dated June 16, 1999 No. 53 (as amended by the laws of the Kyrgyz Republic dated June 11, 2003 No. 102, February 26, 2007 No. 21). The articles of these Laws that provide the legal basis for the implementation of projects and their compliance with state requirements for environmental protection and impact mitigation are given in the table.

Table 1 Regulatory framework for the implementation of projects in the Kyrgyz Republic

	national act	Issue number	Purpose/content
1	Constitution of the Kyrgyz Republic	2021	Recognizes the diversity of forms of ownership, and guarantees equal legal protection of private, state, municipal and other forms of ownership. Land may be in private, municipal and other forms of ownership, with the exception of pastures, which cannot be in private ownership. Property is inviolable. No one may be arbitrarily deprived of his property. Seizure of property by the state against the will of the owner is allowed only by a court decision. Seizure of property for public needs, specified in the law, may be carried out by a court decision with fair and preliminary provision of compensation for the value of this property and other losses caused as a result of alienation.
2	Civil Code of the Kyrgyz Republic	No. 16 dated May 8, 1996, as amended on May 30, 2013	Determines that a person whose right has been violated may demand full compensation for the losses caused to him, unless otherwise provided by law or an agreement corresponding to the law (Article 14, paragraph 1). The Civil Code defines the following damages that are subject to compensation: expenses that a person whose right has been violated has made or will have to make in order to restore the violated right (Article 14, paragraph 2); loss of or damage to property (Article 14, paragraph 2); unearned income that this person would have received under normal conditions of civil circulation if his right had not been violated (lost profit) (Article 14, paragraph 2); compensation for lost profits, along with other expenses, at least in the amount of this income to the person who loses land, assets or livelihoods.
3	Housing Code of the Kyrgyz Republic	No. 117 dated July 9, 2013	Determines the provision of compensation payments to owners of residential premises that are subject to demolition in connection with the withdrawal of land
4	Land Code of the Kyrgyz Republic	No. 45 of June 2, 1999, as amended on May 26, 2009	It regulates land relations in the Kyrgyz Republic, the grounds for the emergence, the procedure for exercising and terminating rights to land and their registration, and is also aimed at creating land-market relations in the conditions of state, communal and private ownership of land and the rational use of land and its protection. The Land Code is the main document regulating land use
5	Law of the Kyrgyz Republic "On the	No. 145 dated July 15, 2013	The law was developed in accordance with the Land Code of the Kyrgyz Republic, other regulatory legal acts of the Kyrgyz

	national act	Issue number	Purpose/content
	transfer (transformation) of land plots"		Republic and defines the legal framework, conditions and procedure for the transfer (transformation) of land from one category to another or from one type of land to another.
6	Law "On Highways"	No. 72 dated June 2, 1998	- Article 4, public roads are state-owned, cannot be sold, cannot be transferred to private ownership. - Article 27 determines that, without prior permission from the State Automobile Inspectorate and the Ministry of Transport and Communications of the Kyrgyz Republic, it is prohibited on roads, among other things: vending on the roadside; placement of kiosks, pavilions and similar structures, - Article 23 Unauthorized use of road lands by illegal users
7	Asset valuation regulation		Asset valuation is carried out on the basis of the Provisional Rules for the Activities of Appraisers and Appraisal Organizations (Government Decree No. 537 of August 21, 2003), Property Valuation Standards (Government Decree No. 217 of April 03, 2006) and other provisions of national legislation
8	Law "On state registration of rights to real estate and transactions with it"	No. 153 of December 22, 1998, last revised on February 25, 2021	This Law establishes the legal basis and procedure for the functioning of a unified system of state registration of rights to real estate and transactions with it throughout the territory of the Kyrgyz Republic. The purpose of the registration system is the recognition by the state of real rights to real estate and transactions with it and property relations registered in accordance with this Law
Legislation on the protection and use of historical and cultural heritage			
9	Law of the Kyrgyz Republic "On the protection and use of historical and cultural heritage"	No. 91 dated July 26, 1999	Establishes legal norms in the field of protection and use of objects of historical and cultural heritage on the territory of the Kyrgyz Republic, which are of unique value to the people. Historical and cultural heritage are historical and cultural monuments associated with historical events in the life of the people, the development of and spiritual creativity, representing historical, scientific, artistic or other value.
Law on Access to Information			
10	Law "On Access to Information, administered by the State Bodies and Local Self-Government Bodies of the Kyrgyz Republic"	No. 213 of December 28, 2006	This law regulates the rights and obligations of state bodies to provide information to the local population in order to achieve transparency in their work.
Law "On the Procedure for Considering Citizens' Appeals"			
11	Law of the Kyrgyz Republic "On the Procedure for Considering Citizens' Appeals"	No. 67 dated May 04, 2007	This law regulates and defines the procedures and stages for considering citizens' appeals to meet their needs and resolve disputes
Main provisions of the Legislation of the Kyrgyz Republic in the field of environmental protection			
12	Constitution of the Kyrgyz Republic	2021	The earth, its subsoil, air space, water, forests, flora and fauna, and other natural resources are used, but at the same time they are protected. Everyone is obliged to take care of the natural environment, flora and fauna of the state
13	The concept of environmental safety of the Kyrgyz Republic	No. 506 dated November 23, 2007	Establishes the basic principles of environmental policy and identifies global, national and local environmental issues; priorities in the field of environmental protection at the national level, as well as tools for ensuring environmental safety
14	Law of the Kyrgyz Republic "On Environmental Protection"	No. 53 of 1999	the basic principles of environmental protection and provides legal authority to establish environmental quality, establish an environmental monitoring and control system. air, water; standards for the use of natural resources; norms of maximum

	national act	Issue number	Purpose/content
			safe levels of noise, vibrations and other hazardous physical impacts. This law establishes the requirements for conducting an environmental assessment in order to prevent possible harmful environmental impacts. It prohibits the financing or implementation of projects related to the use of natural resources without obtaining a positive conclusion from the State Ecological Expertise.
15	Law of the Kyrgyz Republic "On Environmental Expertise"	No. 54 of 1999	It is the main legislation concerning the conduct of environmental assessment. Its tasks include preventing negative impacts on human health and the environment resulting from economic or other activities and ensuring that such activities comply with the environmental requirements of the country.
16	Law of the Kyrgyz Republic "General technical regulations for ensuring environmental safety in the Kyrgyz Republic"	No. 151 of 2009	It is applied for the purpose of environmental protection, defines the main provisions of technical regulation in the field of environmental safety and establishes general requirements for ensuring environmental safety in the design and implementation of activities at economic and other activities for all legal entities and individuals
17	Regulations on the procedure for conducting environmental impact assessment in the Kyrgyz Republic	No. 60 dated February 13, 2015	Establishes the procedure for assessing the impact of the proposed activity on the environment (hereinafter referred to as EIA). The purpose of the EIA is to prevent and/or mitigate the impact of the proposed activity on the environment and related social, economic and other consequences
18	Regulations on water protection zones and strips of water bodies in the Kyrgyz Republic	No. 271 dated 7.07. 1995	Determines the procedure for establishing water protection zones and strips at water bodies of the Kyrgyz Republic, establishes the mode of economic activity and use of lands that are part of water protection zones and strips, as well as responsibility for maintaining them in proper condition
19	Rules for the protection of surface waters in the Kyrgyz Republic	No. 128 dated March 14, 2016	The rules for the protection of surface waters of the Kyrgyz Republic regulate the protection of surface waters from pollution, clogging and depletion, when water users carry out various types of economic activities that have or may have an adverse impact on the state of surface waters, regardless of their organizational and legal form, and also regulate the procedure implementation of measures for the protection of surface waters
20	Law of the Kyrgyz Republic "On the Protection of Atmospheric Air"	No. 51 of 1999	Regulates relations on the use and protection of atmospheric air.
21	Law of the Kyrgyz Republic "On production and consumption waste"	No. 89 of November 13, 2001	Determines the state policy in the field of production and consumption waste management and is designed to help prevent the negative impact of production and consumption waste on the environment and human health when handling them, as well as to maximize their involvement in economic circulation as an additional source of raw materials
22	Law of the Kyrgyz Republic "On the protection and use of flora"	No. 53 dated 06/20/2001	Establishes the legal framework for ensuring effective protection, rational use and reproduction of flora resources
23	Law of the Kyrgyz Republic "On the Fauna"	No. 59 of 06/17/1999	Establishes legal relations in the field of protection, use and reproduction of wildlife objects
24	Law of the Kyrgyz Republic "On local state administration and local self-	No. 123 dated October 20, 2021	Establishes the principles of organizing local authorities at the level of administrative-territorial units of the Kyrgyz Republic

	national act	Issue number	Purpose/content
	government bodies” No. 123 dated 20.10. 2021		
25	Water Code of the Kyrgyz Republic	No. 8 dated 12.01.2005	Regulates the use and protection of waters
26	Forest Code of the Kyrgyz Republic	No. 66 of 07/08/1999	Regulates the use and protection of forest resources

4. Environmental management plan

The contract with the Contractor during the construction phase requires the implementation of an SSEMP to minimize short-term environmental impacts using known conventional methods such as:

- 1) spraying water to minimize dust formation,
- 2) setting speed limits for vehicles in the project area,
- 3) providing enough toilets for construction workers, proper disposal of household waste (especially food waste)
- 4) introduction of health and safety rules
- 5) the appointed project manager should closely monitor compliance with the environmental and safety provisions of the contracts.

The SSEMP serves as a general and systematic guide covering the policies, procedures and regulations that must be in place throughout the life of the project in order to ensure that social and environmental issues are systematically addressed during the life of the project. The SSEMP provides technical input and guidance to the Project in terms of environmental and social management. Application and implementation of the SSEMP will guide the integration of social and environmental considerations into the decision-making process at all stages of planning, design, implementation, operation and maintenance of the project by identifying, preventing and/or minimizing adverse social and environmental impacts - at the earliest stages of the project implementation process. The SSEMP was carried out based on the analysis of the ecological state of the environment, the current technical condition of the irrigation system, and taking into account the expected consequences of the impact from the implementation of the measures taken. The implementation of the measures envisaged by the project will ensure uninterrupted and reliable operation of the irrigation system.

The implementation of the project will not cause negative environmental impacts, and the relevant measures listed in the previous section, when implemented, will fully comply with ADB requirements.

The general SSEMP measures are:

- 1) Implementation of measures to prevent or reduce any negative consequences of the impact to acceptable levels;
- 2) Implementation of measures that contribute to ensure that environmental activities are in phase with technical and other project activities during implementation;

- 3) Implementation of measures to eliminate risks at the stages of construction and operation;
- 4) Monitor and manage the grievance redress mechanism during construction and operation.

The irrigation system is shown in the following figure.

Subproject Sites under Climate Change and Disaster -Resilient Water Resources Sector Project



Figure 1. Saparbayev Canal (2) on the scheme. SVR source.

4.1. Mitigation measures for impacts on air quality, water quality, noise, vibration, soil pollution, soil erosion

Impacts for the subproject are assessed as minor when appropriate mitigation measures are to be taken (minor impact, positive or negative - if an impact occurs but does not meet the criteria for a major impact, it is considered minor).

A number of different adverse environmental and social impacts may occur during construction activities, such as;

- 1) temporary restriction of access to private and public assets (land, commercial facilities, roads, markets, etc.) within the framework of construction activities.
- 2) increased environmental pollution with waste;
- 3) noise;
- 4) air pollution by dust, fuel combustion wastes;
- 5) increased pollution of ground and surface waters as a result of inadequate prevention and mitigation measures;
- 6) soil degradation and pollution;
- 7) threats to human health as a result of improper handling of heavy equipment during construction work;

These impacts are typical of construction or rehabilitation activities and can be mitigated through the application of good construction practices and/or appropriate mitigation measures. In order to avoid serious impacts on the environment and local communities in the vicinity of the site as a result of the Project, the Contractor will comply with and apply the following conditions.

4.2. Land acquisition

The project activities do not provide for the forced withdrawal of land during the rehabilitation of the facility, all project activities will be carried out on state-owned land plots specially allocated earlier for the operation of the irrigation facility.

4.3. Construction site

???

4.4. Traffic management plan

The map shows the scheme of vehicle traffic and speed limits on the route from the location of the Contractor's infrastructure to the place of work, avoiding the movement of vehicles and mechanisms through the settlement.

4.5. Air pollution

Dust will be generated around the construction area and material transport route. Earthworks, a temporary working area, as well as the operation of construction equipment will become sources of dust and fuel combustion products (nitrogen oxides, sulfur, nitrogen oxides, carbon, soot, aldehydes, benzo (a) pyrene). The work of the bulldozer and loading will be accompanied by the release of inorganic dust into the atmospheric air with a SiO₂ content of 20-70%. Dust will increase around the construction site and transportation route in the region of 100-150 meters from the road. The construction site, bypass road, spoil heap, as well as the operation of construction equipment will become sources of dust. Open areas for storage of topsoil, sand, vehicles for transporting soil, sand will emit dust if they are not covered.

During the construction phase of the project, there will be impacts on local air quality due to construction vehicle exhaust and dust generation, however, these impacts will be localized and temporary. In particular, the risk of dust pollution will increase in windy conditions. The magnitude of the impact will increase when construction/rehabilitation works are carried out in the vicinity of a populated area.

Given the nature of most works, this impact is expected to be short term, low risk, and reversible, and can be mitigated by implementing the measures recommended in the Mitigation Plan table, such as frequent watering, dust screening, which may be required for objects associated with earthworks, when transporting dusty materials.

Since the production base is located on the outskirts of the village, no significant impact on the residential area is foreseen.

4.6. Water pollution and water use

Earthworks, construction site operation, storage of oil, hazardous materials, and waste of soil will become sources of water pollution. Leakage of oil, hazardous materials, construction debris and household waste can lead to chemical contamination.

A site lease agreement was concluded with the contractor, according to which wastewater will be removed by the communal services of the village government.

4.7. Soil pollution and land use

Leaks of fuel, lubricants, construction debris and cesspool waste can cause soil contamination. Earthworks will be carried out using excavators and bulldozers. During excavation, the soil will be stored near trenches and pits. When carrying out excavation work, excavation should be used as much as possible as backfill and embankment.

The contractor has signed a lease agreement for the site of the construction site, according to which the repair of vehicles will be carried out off site, which prevents fuel leaks from entering/on the ground.

4.8. Generation of municipal solid waste

Construction activities will inevitably generate solid and liquid waste, including inert waste (eg concrete, wood, plastic, etc.) and hazardous waste (eg used oils). In addition, uncontrolled discharges of sewage and gray water (eg from toilets and canteens) from construction sites can also cause odors and pollute local water resources.

Construction site operation for workers generates household waste. During earthworks, rock heaps and excavated soil are formed. Other construction activities generate construction waste such as wood, metal, plastic, grass, paper and hazardous waste. Without appropriate waste management measures, environmental pollution can occur.

The contractor entered into an agreement with the municipal enterprise Kok-Zhar a/o dated 12.04.2014. 2022, according to which HW will be taken to an authorized landfill.

4.9. Generation of hazardous waste

The most hazardous wastes generated during the construction process include spent fuels and lubricants. These wastes are dangerous pollutants of almost all components of the natural environment - surface and ground waters, soil and vegetation cover, atmospheric air. They can cause significant damage to the environment if not properly collected and stored. In this regard, it is necessary to comply with the conditions for their collection and storage.

The contractor signed a lease agreement for the site, according to which the temporary disposal of hazardous waste will be carried out in containers at a special site with a canopy. When containers with spent fuel and lubricants are installed, the places for the accumulation of these wastes must have a hard cover and a canopy that excludes the ingress of water and foreign objects. Tanks with waste oil and contaminated oil products must be equipped with metal pallets. The tray must be capable of retaining at least 5% oil by volume in the event of an overflow.

Places and sheds in which used oil containers are stored must be protected. When storing containers with used oils, it is necessary to monitor their tightness in order to avoid contamination of environmental components with used oils (the barrel caps must be tightly tightened).

Maintenance of equipment will be carried out exclusively at gas stations, used oils and other liquid pollutants will be stored in specially equipped places and transported for regeneration to the nearest tank farm.

4.10. Flora and fauna of the project area

Rehabilitation works will be carried out on the territory of the existing irrigation system, therefore, significant damage to vegetation and wildlife is not predicted. At the stage of construction works, the soil and vegetation cover will be indirectly affected in the form of dust settling on the surface of leaves, emissions from the operation of internal combustion engines of equipment.

Taking into account that the consequences of atmospheric air and soil pollution with chemicals in the territory adjacent to the work site are permissible, weak in degree and intensity, and the level of pollution will not exceed permissible standards, then the negative impact on the soil and vegetation cover will be short-term and weak. by degree.

4.11. Archaeological and cultural resources

The possibility of discovering the finds may arise during the rehabilitation works. The SSEMP provides for the use of “chance finds” procedures, which include a pre-approved approach to the management and conservation of materials that may be discovered during project implementation.

The Contractor undertakes to protect any valuable landscapes and objects, including archaeological and paleontological remains.

4.12. Noise and vibration

Construction machinery, transport trucks will be a source of noise and vibration. Since the current work on the sites will be carried out only during the daytime from 9-00 to 19-00, no significant impact on the residential area is expected.

5. Part 1. Mitigation Plan

Taking into account the types of project activities and possible problems and / or impacts on environmental components, the tables describe the mitigation measures that will be included and implemented during design (hereinafter - P), construction (hereinafter - C), or on stage of operation (hereinafter - E).

Environmental component Types of work and examples of possible problems and/or impacts	Stage (P, S, E)	Mitigation measures
Construction waste	With	<ol style="list-style-type: none"> (1) Obtaining permits required by law for construction or restoration work on this site (in particular, permits for the use of a land plot, the use of natural resources, a waste dump, etc.). (2) All works must be carried out in the safest and most disciplined manner and be organized in such a way as to minimize the negative impacts of the production process on local residents and the natural environment. (3) For all major types of construction waste expected during construction work, waste collection sites and schemes for its movement and removal should be prepared. In no case should you resort to burning construction waste and structures on an open fire right at the work site. Necessary usage allowed landfills and landfills . (4) Segregation of waste if required to be used and recycled. Mineral waste from construction activities should be separated from general debris and organic, liquid and chemical waste by on-site waste sorting, after which these wastes should be placed in appropriate containers. (5) Construction waste must be collected and taken out in the proper manner to the allotted landfill (up to 8 km) in accordance with the concluded agreement with the ayil okmotu / economic entity . (6) All waste collection and disposal records and records must be properly maintained as evidence of proper site waste management as designed. (7) Household and food waste from the permanent presence of the Contractor's visiting personnel at the site must be separated from the rest of the waste from construction activities and placed in special containers, which, when filled, must be taken to an authorized landfill.
Impact on biodiversity	P, S, E	<ol style="list-style-type: none"> (1) Make an inventory of the biodiversity of valuable species (Red Book, endemic, relict, etc.) (2) Minimize loss of natural vegetation/Maximum preservation of vegetation during construction. (3) Create footbridges where the canal passes through populated areas. (4) Do not fish and avoid introducing alien species into natural waters.

Environmental component Types of work and examples of possible problems and/or impacts	Stage (P, S, E)	Mitigation measures
Excavation	P, S, E	(1) Minimizing construction area in order to reduce impacts; (2) Perform construction and installation work during the dry season to reduce excessive soil pollution.
Soil and surface water pollution	P, S, E	(1) Fuels and lubricants: use specially equipped places (with a concrete floor, or an iron pallet) for handling and storage to avoid leakage into the soil and runoff into water bodies. (2) The use of special platforms and tanks with a waterproof bottom to collect leaks of fuel and lubricants (3) Ensure natural flow of water/minimum disturbance of natural water flows. (4) Controlling and minimizing water use. (5) Avoid or minimize abstraction of surface water

6. Part 2. Environmental plan

6.1. Environmental and Social Management Plan during the construction phase

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
1	Permits for construction	Conducting an environmental impact assessment (EIA) prior to construction work	Conclusion of the SEE SAEPF KR No. 02-2/30 dated 02.02.2021	PIC / PIU
2	Location of construction materials processing sites, construction camps/construction sites	Obtaining a permit for the placement of BSU, construction camps and other construction sites before the start of construction work	The contractor received permission to use the site as a base from the RUWH	Implementation → Contractor Supervision → PIC/PIU
3	Environmental Management Plan	Preparation and approval of the EMP prior to commencement of construction works	This draft EMP is proposed by the PIU	Implementation → Contractor Supervision → PIC/PIU
4	Public information	Inform the public, the local population, before the start of construction through community leaders, brochures, webcasts, etc.	It is necessary to prepare brochures, web broadcasting before the date of commencement of construction works	Implementation → Contractor Supervision → PIC/PIU
5	Training and professional development of GRG and LPC members	PSC will be carried out in agreement with the PIU before the start of construction work	It is necessary to prepare presentations and brochures and agree on the date of the event	Implementation → PIC Supervision → PIU
6	Training and advanced training of the Contractor's employees, environmental, health and safety specialists. Training of contractor personnel in general site adaptation, environmental and social mitigation measures, health and safety issues, including HIV-AIDS and	A PSC will be carried out in agreement with the PIU before the commencement of construction work.	It is necessary to prepare presentations and brochures and agree on the date of the event	Implementation → PIC Supervision → PIU

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
	<p>COVID-19, emergency procedures and response. Training of Contractor personnel in methods of assessing the presence of ACM and determining procedures for the safe disposal of asbestos using appropriate protective equipment, storage in sealed containers, and management by an authorized company or agency.</p>			
7	<p>Definition of state and public utilities at the construction site</p>	<p>Conduct a visual inventory of all construction sites, camps, locations of construction sites prior to construction</p>	<p>The contractor concluded a lease agreement , which takes into account the terms of lease of space for the placement of BSU, equipment, a work camp, as well as places and services for storing solid waste, as well as services for the removal of solid waste and wastewater discharge into the sewer.</p>	<p>Implementation → Contractor Supervision → PIC/PIU</p>
eight	<p>Noise and vibration During the period of construction work, the sources of intermittent noise/vibration are the working mechanisms (engines) of construction and road equipment. There may also be temporary increases in noise/vibration</p>	<p>The use of noise protection means is not provided, the equipment will be equipped with silencers. The use of vibration devices that meet the standards, as well as vibration and noise protection devices. Equipment will work only from 8 am to 6 pm, no work will be carried out at night. During work, the covers of the engines of generators, air compressors and other drive mechanisms must be closed; equipment should be located as far away from living quarters as possible.</p>	<p>Treated as a separate item of expenditure. The contractor will develop an individual action plan, which will specify the requirements for noise and vibration control.</p>	<p>The representative of the contractor is responsible for the implementation of measures to reduce the negative impact on the environment. The PIU Field Supervision Engineer</p>

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
	levels along material supply routes.	Thus, in the territory of work, the sound level during the construction period, when working only in the daytime, does not exceed the value recommended by sanitary standards for the maximum and equivalent sound levels. There are no sources of noise generation during operation.		will carry out general supervision of the construction site and general supervision. The PIU Safeguards Specialist is responsible for monitoring potential environmental risks.
nine	Contamination of soil and water by precipitation or during the detection of leaks; water pollution by oil products from the use of machinery During the construction period, the impact is accompanied by the following types of work: -excavation - excavation, embankment, soil filling, planning - work of construction equipment. -formation of household waste.	Daily checks of equipment for oil leaks; ban on washing cars at the construction site Removal of the soil-vegetative layer. Improvement of the territory in accordance with the project.	Not considered as a separate item of expenditure.	Implementation → Contractor Supervision → PIC/PIU
10	atmospheric air Dusting during work will be minor and temporary. Emissions of pollutants into the atmosphere are expected: - from vehicles - when planning the subgrade -when using electric welding - vehicle movements and selection of suitable transport	Dust suppression measures to prevent dust with construction site fencing. Speed limit. It is not allowed to operate vehicles with a defective fuel system that exceeds the exhaust gas toxicity standards. It is prohibited to burn construction and household waste at the work site. It is necessary to monitor the cleanliness of the surrounding area to prevent the ingress of construction debris in order to minimize dust and pollution.	Equipment for vehicles transporting bulk materials with removable awnings. Delivery of cement to construction sites is carried out only in packaged bags. Emissions are temporary, short-lived. It should be noted that the construction of facilities will not take place in parallel, but in	Implementation → Contractor Supervision → PIC/PIU

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
	<p>routes to minimize exposure to dust sensitive receptors.</p>		<p>stages and sequentially, from one facility to another. Thus, emissions of pollutants during the construction period will not exceed the MPC.</p>	
ele ven	<p>Water resources. Types of impacts: removal of solid particles by river water, in the places of work, accidental spills of oil products during the operation of construction equipment on the ground, waste generation. At the construction site</p>	<p>Work areas with machines, concrete mixers and fuel tanks should be located outside the water protection zones. During the construction period, wastewater discharges into the water body are not provided.</p>	<p>The contractor concluded a lease agreement for a site in the RUVH, which takes into account the conditions for renting space for equipment, a work camp, as well as a place for storing solid waste.</p>	<p>The representative of the contractor is responsible for the implementation of measures to reduce the negative impact on the environment. The PIU Field Supervision Engineer will carry out general supervision of the construction site and general supervision. The PIU Safeguards Specialist is responsible for monitoring potential environmental risks.</p>
12	<p>Biodiversity. Loss of flora and fauna.</p>	<p>In order to prevent the impact and loss of animals and other representatives of the fauna, the Contractor must ensure: 1)Fencing around bird nesting areas and animal habitats; 2)Restriction of construction work during breeding and nesting; 3)Equipment of working areas with fences, reflectors that scare away animals; 4)Prohibition of movement and parking of vehicles outside the construction site in animal habitats; 5)A categorical ban on illegal hunting, fishing in rivers and cutting down trees during the entire construction period;</p>	<p>Not considered as a separate item of expenditure.</p>	<p>Contractor implements mitigation measures; The Construction Supervision Consultant regularly monitors the activities of the Contractor.</p>

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
		<p>6)Safe disposal of food waste so as not to attract animals; Limit animal access to waste bins.</p> <p>In order to preserve the existing flora, the Contractor must:</p> <ol style="list-style-type: none"> 1) During construction work, provide for the exclusion of the use of materials and substances that may have an adverse effect on the flora; 2)Completely prohibit the kindling of open flames (bonfires) on the construction site; 3)Prevent unauthorized felling of trees and shrubs. Cutting down is carried out only with the permission of local authorized bodies in the field of environmental protection and protection of forest resources; 4)Eliminate spills and leaks during transportation of fuels and lubricants, loading and unloading operations, discharges of untreated wastewater onto soil and vegetation; 5)All employees are required to take precautions during a fire hazard period to avoid igniting dry grass; 6)In case of forced sanitary felling, it is required to carry out a photo-video fixation of the vegetation determined for clearing, with attachment to the Felling Act. This act must be agreed with the Construction Supervision Consultant. 		
13	Construction waste Pollution of adjacent territories, soil and water resources	<p>Removal and disposal of waste to separate dumps and in cooperation with a local waste disposal company; ban on open burning of garbage. Mineral waste from construction and demolition activities should be separated from general and organic waste, liquid and chemical waste should be sorted and stored in special containers.</p> <p>All disposal and waste paperwork must be properly maintained as evidence of proper waste disposal on site.</p>	<p>The contractor signed a lease agreement for a site in the RUVH, which takes into account the conditions for renting space for equipment, a work camp, as well as places and services for storing solid waste.</p>	<p>Implementation → Contractor Supervision → PIC/PIU</p>
fourteen	Asbestos and ASM. Some construction waste may contain asbestos and ACM.	<p>The Contractor shall train its workers in the methods of assessing the presence of ACM and determining procedures for the safe disposal of asbestos, using appropriate protective equipment, storage in sealed containers, and management by an authorized company or agency.</p>	<p>Treated as a separate item of expenditure.</p> <p>The contractor will develop an individual action plan, which will specify the requirements for ACM.</p>	<p>The PIU Field Supervision Engineer will carry out general supervision of the construction site,</p>

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
				including monitoring of potential risks. The representative of the contractor is responsible for the implementation of measures to reduce the negative impact on the environment.
fifteen	Occupational health and safety (OHS) <ul style="list-style-type: none"> ▪ Inadequate housing and hygiene standards resulting in injury or illness 	Contract documentation should include a requirement that the employment of employees be in line with bank best practices. The contractor will appoint a camp manager who will be responsible for ensuring that living standards meet the basic requirements and that they are safe and hygienic.		The PIU Field Supervision Engineer will provide general supervision of the construction site, including monitoring of potential risks. The implementation of the measures is carried out by the Contractor.
	<ul style="list-style-type: none"> ▪ Injury or death of workers due to insufficient control over work activities and processes 	The Contractor develops a draft Work Program for all major activities and includes a health and safety risk assessment for each activity. The Contractor conducts an introductory health and safety briefing for all personnel, as well as special training for workers working in the workplace, including measures to combat COVID-19. The Contractor undertakes to provide the facility workers with all the necessary personal protective equipment (PPE) free of charge, including safety shoes, high visibility vests, and safety helmets with protective hearing protectors. Specific tasks may require other PPE, such as welding helmets, welding bulbs.	The contractor will train and appoint an occupational health and safety specialist as the responsible person for the entire duration of the project. Providing medical and emergency care: The Contractor ensures the availability of appropriate emergency medical equipment, disinfectants, masks, gloves, etc., as well as trained first aid specialists.	The PIU Field Supervision Engineer will provide general supervision of the construction site, including monitoring of potential risks. The implementation of the measures is carried out by the Contractor.

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
			If necessary, the Contractor will arrange a polymerase chain reaction (PCR) test to identify the genetic material of a particular organism, such as COVID-19.	
	<ul style="list-style-type: none"> ▪ construction camp 	<p>The camp will be provided with proper water supply, sanitation and all necessary infrastructure. This will minimize dependence on external resources currently used by the local population and minimize unwanted social tensions.</p> <p>The camp will have a sealed septic tank/latrine of sufficient capacity to function properly for the duration of their use.</p>	<p>Determining the location of the construction camp in agreement with the RUWH.</p> <p>After the completion of construction work, the site where the camp was located should be restored to its previous state by carrying out cleaning activities.</p>	<p>The PIU Field Supervision Engineer will provide general supervision of the construction site, including monitoring of potential risks.</p> <p>The implementation of the measures is carried out by the Contractor and leases the RUWH site.</p>
	<p>Historical and cultural finds and OCIH.</p> <p>Damage and degradation of OCIH on the site.</p>	<p>The procedure for the discovery of finds of cultural value.</p> <p>In case of finds of cultural value or other significant discoveries during earthworks, it is necessary to stop all work and inform the relevant authorities before starting work.</p>	Not considered as a separate item of expenditure	Representative of the contractor and engineer for technical supervision of the PIC
16	Safety of local communities and residents	<p>Local communities will be appropriately informed about the works through publications and/or announcements in the media and/or information boards in public places (and work sites).</p> <p>All permits required by law for the use of dumps, as well as permits from the sanitary inspection, etc., must be obtained. during construction and rehabilitation works at the site.</p> <p>The contractor must:</p> <ol style="list-style-type: none"> 1) organize parking of equipment at a safe distance from social facilities (schools, kindergartens, hospitals, etc.); 2) protect dug trenches with warning signal tapes; 3) install road signs, safety signs for pedestrians and drivers; 	Not considered as a separate item of expenditure.	The PIU Field Supervision Engineer will carry out general supervision of the construction site, including monitoring of potential risks.

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
		provide residents with a sufficient number of safe crossing bridges (through trenches).		
17	Aesthetics and landscape. Landscape modification	Application of landscape design methods, exclusion of deep cuts and high embankments.	Not considered as a separate item of expenditure.	Representative of the contractor and engineer for technical supervision of the PSC
18	Land acquisition and forced resettlement. Demolition of buildings, resettlement associated with land acquisition for construction.	Land acquisition and involuntary resettlement are not envisaged under the project.	The Ministry of Finance/Cabinet of Ministers of the Kyrgyz Republic will pay compensation for land and assets of Project Affected Persons (PAPs).	The PIU will oversee the resettlement planning and coordinate all issues related to the provision of compensation in close cooperation with LSGs.
19	Violation of the functioning of existing communications and social infrastructure	Timely warning of the population about upcoming shutdowns. Rapid restoration of communications and social infrastructure facilities.	Not considered as a separate item of expenditure.	Implementation → Contractor → with the assistance of local self-government
20	Social and gender aspects	<p>During the construction period on the part of the Contractor and their employees:</p> <ol style="list-style-type: none"> 1) Local rules and customs will be respected; 2) Unnecessarily and without necessity, personnel will not enter settlements; 3) Communication with the community will be maintained through the authorized persons of the Contractor; 4) Bank guidance will be used to address potential impacts caused by temporary influx of labor; 5) The Bank's Guidance on Gender-Based Violence (GBV) will be used to address potential impacts caused by temporary influx of labor force; 6) The Contractor will prepare and implement a Code of Conduct for Personnel. In addition, he will instruct and train the Code of Conduct. Information materials will be used where necessary; 	<p>Not considered as a separate item of expenditure.</p> <p>It is necessary to ensure equal participation, consideration and reflection of the interests and opinions of women throughout the entire period of the project.</p> <p>At least 30% of the participants in all meetings and meetings within the project will be women.</p>	Implementation → Contractor → with the assistance of local self-government

No.	Activities/ Possible problems/impacts	Mitigation/management measures	Impact/Efficiency Indicators	Implementation /Control Responsibilities
		The GRG will consider complaints received from communities related to social risks.		
21	Appropriate operation	Ensuring proper and efficient use of water resources and preventing water loss, leakage and excessive water consumption.	Preservation of channel efficiency	RUVH

6.2. Operational Phase Environmental and Social Management Plan

Stage/Environment/Potential Impact	Mitigation measures	Responsible Parties/Sequence of Procedures
Appropriate operation	Ensuring proper and efficient use of water resources and preventing water loss, leakage and excessive water consumption.	RUVH
Air quality	The organization responsible for the operation should: <ul style="list-style-type: none"> • Prohibit open burning of garbage generated on the territory of the facility; • Prohibit idle cars on the territory of the facility, idling, etc. 	RUVH
Water quality	The organization responsible for the operation of the facility should: <ul style="list-style-type: none"> • Ensure proper management of waste generated on site to prevent spread of debris to adjacent areas. 	RUVH
Soil quality	The organization responsible for the operation of the facility should: <ul style="list-style-type: none"> • Ensure the operation of the facility in compliance with sanitary requirements, clean up the area from debris; • Ensure proper management of waste generated on site; • Dispose of waste to authorized landfills in a timely manner. 	RUVH
Flora	Ensuring the conservation of plants and green spaces on the territory of the facility, including the conservation of rare plant species. Watering trees on an ongoing basis.	RUVH
Fauna	Enforce restricted access to trash cans to prevent entry of animals.	RUVH

7. Part 3. Environmental Monitoring Plan

No.	Monitoring parameter	Place of implementation monitoring	Monitoring Method/ Engaged Laboratory or Organization	Monitoring frequency	Stage (P, S, E)	institutional responsibility
one	Noise and vibration from vehicles, mechanisms	At the construction site	Portable Sound Level and Vibrometers/ Accredited Sanitary Laboratory	According to the construction plan	With	PIC security specialist
2	atmospheric air	At the construction site	Portable Equipment / Accredited Environmental Laboratory	According to the construction plan	With	PIC security specialist
3	Soil and water pollution	At the construction site	Visually	Constantly	With	PIC security specialist
4	Transport (parking in designated areas, vehicle washing)	At the construction site	Visually	weekly	With	Technical Supervision Engineer
five	Construction garbage (recycling and storage of waste)	At the construction site	Visually	weekly	With	PIC security specialist
6	Dismantling of the construction sites	At the construction site	Visually	According to the demolition plan	With	Technical Supervision Engineer
7	Worker safety	At the construction site	Visually	Constantly	With	Technical Supervision Engineer

7.1. Ecological basic monitoring. Environmental protection costs for mitigation and environmental monitoring.

The environmental costs of the project are included in the project cost and include:

- i. expenses for financing research, consultations, and disclosure of information on the ESSMP.
- ii. expenses to finance environmental monitoring and reporting. The table below shows the costs required to finance the environmental monitoring of the rehabilitation system.

Table 2. Estimates for basic environmental monitoring

selection point	Frequency	Locations and number trials or samples	Price units	Price
Air quality	1 time per quarter	2 samples at the entrance to the canal 2 samples near the nearest settlements Total sample =4	100\$US	400 US\$
Water quality	1 time per quarter	2 samples at the entrance to the canal 2 samples near the nearest settlements Total sample =4	\$ 50	100 US\$
Soil pollution	1 time per quarter	2 samples at the project site Total sample = 2	75\$US	150\$US
Noise	1 time per quarter	vulnerabilities, The total number is presumably 5	\$40	200\$US
			Total per quarter	\$ 850

8. Waste management plan

The purpose of the Waste Management Plan is to describe the waste management procedures carried out during the implementation of the Subproject. Excess waste or production waste arises from both materials brought to the site and construction waste from works that are carried out on the site. Imported materials are those that are brought to the site for inclusion in the work. Construction waste generated during the daily work of the site, i.e. unusable and subject to replacement components of structures.

8.1. Applicable legislation to HW

According to GKR Regulation No. 885 dated December 28, 2015 “On the Disposal of Hazardous Waste in the Territory of the Kyrgyz Republic”, the Law of the Kyrgyz Republic “On Approval of the Procedure for Handling Hazardous Waste in the Territory of the Kyrgyz Republic, etc. waste is classified:

- 1) Class I - Substances (waste) are extremely hazardous.
- 2) Class II - substances (waste) are especially dangerous.
- 3) Class III - Substances (waste) are moderately hazardous.
- 4) Class IV – Substances (waste) with low hazard.
- 5) Class V - practically not dangerous.

8.2. Waste collection

Waste from the Project falls into two categories (class IV and class V) for management, which are subject to transport to a landfill for waste.

Under an agreement with local utilities, the remaining waste from the Project will be removed to local landfills with payment for the services rendered.

As a result of the work, the wastes listed below will be generated:

- 1) Construction waste (dismantling of unusable parts of the canal and structures);
- 2) Waste from earthworks (soil, stones, sand and silt);
- 3) Household waste in the camp and construction sites (food leftovers, used paper, glass, wood, etc.);
- 4) Polluting/hazardous waste (remains of bitumen, paint, fuel, technical fluids);
- 5) Hygiene waste (used masks, dressings, protective equipment).

At the location of the construction camp, a site for collecting household waste will be arranged: a fenced, covered concrete area measuring 2x3 m, two garbage containers will be installed, and they will be removed as they are filled to local landfills.

8.3. Waste landfill

For storage and further disposal of household and construction waste, service contracts will be concluded with local utilities. Waste that will be collected at the site of the construction camp will be collected in garbage containers and taken to a landfill, which will be specified by the local municipal service. Waste from construction activities will also be removed to the locations designated by local utilities.

8.4. Applicable law to ACM

The removal of materials containing asbestos will be carried out in accordance with national legislation, building standards, labor safety requirements; requirements for the release of harmful substances into the air and disposal of hazardous waste. In the absence of local legal procedures, Directive 2003/18/EC of the European Parliament will be used, which supplements Council Directive 83/477/EEC on protection against the risks of asbestos emissions in the workplace: The limit for dust particles in the air is 0.1 fibre/cm³; also use Notes from good practice: Asbestos: Health issues in workplaces and communities; (The World Bank). Asbestos-containing materials are subject to immediate disposal / disposal under special conditions.

According to the Decree of the Government of the Kyrgyz Republic dated December 28, 2015 No. 885 "Procedure for handling hazardous waste in the territory of the Kyrgyz Republic", the disposal of asbestos-containing materials should be carried out as follows. Hazardous waste management processes (waste life cycle) include the following stages: generation, accumulation (collection, temporary storage, storage), transportation, neutralization, disposal, use as secondary raw materials, burial.

If asbestos is found at the project site, it must be clearly marked as a hazardous material. Asbestos-containing materials must not be broken or cut. This creates dust. As regards reconstruction work, workers should avoid crushing/demolition of asbestos waste and dispose of it in an organized manner at construction sites with subsequent removal to designated areas or landfill.

If asbestos material is to be stored temporarily, its waste should be securely isolated in closed containers and marked as hazardous material. Security measures must be taken to prevent unauthorized removal from the site.

8.5. Collection and temporary storage of ACM waste

The generation of asbestos waste should be minimized through the use of the most efficient production techniques. Asbestos will be handled and disposed of by qualified and experienced professionals using appropriate protection (masks, gloves and overalls). At the waste collection point, it is allowed to store waste in an amount not exceeding the established norms. It is not allowed to clutter up the places of industrial waste collection and approaches to them.

While working with asbestos waste, builders are required to wear special protective overalls, gloves and respirators. Prior to removal (if removal is necessary), the asbestos will be treated with a wetting agent to minimize the generation of asbestos dust. Removed asbestos must not be reused

It is not allowed to store foreign objects, personal clothing, overalls, personal protective equipment, or eat food in the places of industrial waste collection.

8.6. Handling and transportation of hazardous waste

During the production of loading and unloading operations, the requirements for loading and unloading operations, general safety requirements must be met. Work should be carried out mechanized with the help of lifting and transport vehicles of small mechanization. Transportation of hazardous waste to landfills is carried out by specially equipped own transport of the enterprise or specialized transport companies.

The design and operating conditions of specialized transport should exclude the possibility of accidents, losses and environmental pollution along the route and during the transfer of waste from one type of transport to another. All types of work related to the loading, transportation and unloading of waste in the main and auxiliary industries must be mechanized and sealed. Unloading of hazardous wastes during their transportation is not allowed.

When transporting solid and dusty waste, an independent device or container with grippers for unloading by truck cranes is required;

It is not allowed to transport unpacked asbestos in open car bodies and on railway platforms.

During loading and unloading operations, the use of hooks and other sharp devices is not allowed. When transporting hazardous waste, the presence of unauthorized persons is not allowed, except for the driver and the personnel of the industrial enterprise accompanying the cargo. The driver of a vehicle transporting asbestos-containing waste must be instructed on the rules for transporting cargo.

Works related to the loading and transportation, unloading and disposal of waste must be mechanized. Waste transportation should exclude the possibility of losses along the way and environmental pollution.

8.7. Burial of asbestos-containing waste

Burial of asbestos-containing waste should be carried out at landfills for household waste (HW) and non-utilized solid industrial waste.

Speed limits along the route from the base to the place of work

9. Emergency response plan

9.1. Training of personnel in emergency situations

The Contractor will implement a safety training and briefing program which consists of a water safety briefing for all workers and personnel in the event of an emergency. All workers and personnel will be required to complete a safety awareness briefing during their first week on site. Materials provided and a list of attendance at each induction briefing will be recorded in briefing logs. Periodic briefings on safety training in emergency situations, which will be held at least once every three months. All employees of the company must undergo appropriate briefings, which will be carried out according to a special program, the nature, level and duration of design work. Briefings will be provided to all personnel and all levels of supervision and management.

The Contractor has appointed a permanent employee responsible for supervision of activities within the framework of the SSEMP - a specialist in HSE and emergency situations - Turkbaev T.0770-001-020.

9.2. Technical investigation of the causes of incidents

According to the Resolution of the Government of the Kyrgyz Republic dated January 29, 2018 No. 58 "On the Concept of Comprehensive Protection of the Population and Territory of the Kyrgyz Republic from Emergencies for 2018-2030" (As amended by the Decree of the Government of the Kyrgyz Republic dated July 30, 2019 No. 378) , the Contractor's representative for supervision of safe management work is included in the composition of the commission , by decision of this body , on the basis of an operational report on the incident received from the subject. When conducting a technical investigation into the causes of an incident, the commission is entitled to:

- 1) receive explanations, including written ones, from employees of the subject of industrial safety related to the incident and (or) witnessing the incident, as well as other officials of the subject of industrial safety;
- 2) request and study the necessary documents for compliance with industrial safety requirements that may be relevant to the incident.

Documents submitted to the commission must not contain erasures or corrections.

When conducting a technical investigation into the causes of incidents, the commission is obliged to:

- 1) conduct a survey of the technical condition of industrial safety facilities at the site of the incident and establish the compliance of the technical and operational

- characteristics and technical condition of industrial safety facilities with the requirements established by the rules for ensuring industrial safety;
- 2) to inspect and record the situation at the scene of the incident using technical and other means, including photography, video filming, with the execution of a protocol for examining the scene of the incident;
 - 3) make proposals to the head of the subject of industrial safety, if necessary, on the organization of technical calculations, laboratory studies, tests, examinations and other activities with the involvement of specialists from scientific and design organizations;
 - 4) establish the circumstances and causes of the incident, the persons who committed violations of industrial safety requirements;
 - 5) develop measures to eliminate the causes of the incident and prevent them in the future;
 - 6) determine the number of copies of materials on the technical investigation of the causes of the incident.

Table 3. Form of recording and recording accidents and incidents

#	Date and time of occurrence of the accident (incident)	Event classification (accident, incident)	Name of the hazardous production facility, potentially hazardous facility where the accident (incident) occurred, type of hazard of the hazardous production facility	Brief description of the accident (incident)	Number of injured as a result of the accident (incident)	Date of the act of technical investigation of the causes of the accident (incident) / amount of damage caused	Brief causes and circumstances of the accident (incident)	Information on sending the act of technical investigation to the authorized bodies	A note on the implementation of measures to be taken based on the results of the technical investigation of the causes of the accident (incident)
1	2	3	4	5	6	7	8	9	10

9.3. Contact information in case of emergency

The Contractor's Commission establishes the procedure for technical investigation of the causes of accidents and incidents that occurred at hazardous production facilities and (or) potentially hazardous facilities, as well as the procedure for recording such accidents and incidents.

Table 4. Contact information in case of emergency

No.	Responsible persons	Full name	Contact details/phone
1	Director General - Chairman of the Commission	Jorobekov T.	0777-313-555
2	Chief Engineer - Specialist ecologist	Mamatov A.	0773-170-217
3	OH&S Engineer –	Turkbaev T.	0770-001-020
4	Engineer Planning and technical department	Kyrgyzbaev A.	0555-822-900
5	Ministry of Emergency Situations		122
6	Police		102
7	Paramedics		103

9.4. Surface water management plan

Surface water management plan and spill response procedures and their importance will be regularly communicated to all personnel. Updates to the plan will be communicated and discussed at management meetings and TB operations meetings.

Visual inspection of all spills will be tracked and logged including information on all spills, contaminant type, amount and removal from site, with accurate GPS location of spill and cleaned material disposal locations and kept by the Contractor.

During the work, the Contractor will use water, both from sources of clean drinking water, and water applicable for technical purposes.

Table 5. Activities requiring the use of water

Events	Water use (required to keep running)	Water source
Activities related to the arrangement of camps and bases at the construction site	cooking	Water pipes
Cleanliness measures	Hygiene procedures	Water pipes
	Rinsing of tools, washing of overalls and footwear, washing of machines and equipment.	Water pipes
Dust suppression at the construction site	Humidification (tanks) and spraying	technical water
Drilling	Lubricant	technical water
Concreting blocks	concrete mixer	technical water
vibrating mesh	Laying	technical water
Concrete production	Concrete production	technical water
Commissioning	Mechanical and electrical, pipes, sumps	technical water

Clean drinking water for cooking and hygiene procedures should be taken from sources (water supply, springs, artesian wells) in nearby settlements. For technical purposes it draws water directly from industrial water storage ponds.

9.5. spill category

As a result of various factors, spills and ingress of pollutants into water sources and reservoirs, into the water supply network are possible. Depending on the volume and area of spills of oil products and pollutants on the ground, in inland freshwater reservoirs, emergency situations of the following categories are distinguished:

- 1) local significance - spill of up to 100 tons of oil products on the territory of the facility;
- 2) territorial significance - spill from 100 to 1000 tons of oil products within;
- 3) of republican significance - a spill of more than 1000 tons of oil products that goes beyond the administrative border of the subject.

Based on the location of the spill and hydrometeorological conditions, the category of emergency may be raised.

Practical thresholds for significant (reportable) oil spills are as follows:

- 1) Onshore spills: 70 l.
- 2) Spills on water: any number.

9.6. Small spill response

For small spills, the following steps should be taken:

- 1) collection of spilled substances from the surface, storage in designated areas;
- 2) the use of sorbents (sawdust, cotton wool, wool, propylene);

9.7. Major spill response

Localization and liquidation of emergency spills of oil products (hereinafter - OP) provide for the implementation of a multifunctional set of tasks, the implementation of various methods and the use of technical means. Regardless of the nature of the accidental oil spill, the first steps to eliminate it should be aimed at localizing spots in order to avoid the spread of further contamination of new sites and reduce the area of contamination.

There are several methods of spill response: mechanical, thermal, physico-chemical and biological. One of the main methods of spill response is the mechanical collection of oil products. Its greatest efficiency is achieved in the first hours after the spill. This is due to the fact that the thickness of the oil layer remains quite large. With a small thickness of the oil layer, a large area of its distribution and constant movement of the surface layer under the influence of wind and current, mechanical collection is rather difficult.

The physicochemical method using dispersants and sorbents is effective in cases where mechanical collection is not possible, for example, when the film thickness is small or

when oil spills pose a real threat to the most environmentally sensitive areas. Sorbents, when interacting with the water surface, immediately begin to absorb oil, maximum saturation is achieved during the first ten seconds (if oil products have an average density), after which clods of material saturated with oil are formed.

In extreme cases, if the slick moves, for example, towards protected areas, it can be treated with dispersants. They are special chemicals that break down the oil film and prevent it from spreading. However, dispersants have a negative impact on the environment. The biological method is used after the application of mechanical and physico-chemical methods with a film thickness of at least 0.1 mm. Bioremediation is a technology for cleaning oil -contaminated soil and water, which is based on the use of special, hydrocarbon-oxidizing microorganisms or biochemical preparations.

The number of microorganisms capable of assimilating petroleum hydrocarbons is relatively small. These are primarily bacteria, mostly members of the genus *Pseudomonas*, and certain types of fungi and yeasts. At a water temperature of 15-25 C ° and sufficient oxygen saturation, microorganisms can oxidize petroleum products at a rate of up to 2 g/ sq m of water surface per day. At low temperatures, bacterial oxidation occurs slowly, and oil products can remain in water bodies for a long time - up to 50 years. When choosing an oil spill response method, the following should be taken into account: all work must be carried out as soon as possible; carrying out an oil spill response operation should not cause more environmental damage than the emergency spill itself.

9.8. Spill materials and kits

The work sites and construction camp will be provided with spill response facilities:

- 1) Shovel - 2 pcs.;
- 2) Bayonet shovel - 2 pcs.;
- 3) Hoe - 1 pc.;
- 4) Sawdust bags - 2 pcs.;
- 5) Bags with propylene - 1 pc.

9.9. Spill Containment and Cleanup Procedure

In case of spills and detection, they should be immediately reported to the company's management, the Consultant, local government authorities, local institutions and relevant services (SSES, GDRS, etc.). When an accident occurs, records of all cases should be kept in the emergency log.

Next, you should take all necessary measures to eliminate the problem. Shut off the access of the spilled liquid to water sources and reservoirs, pour out sorbents, carry out protective works. In order to prevent and stop such incidents, state and local rules and regulations regarding the preparation of emergency plans and notification requirements should be strictly observed.

9.10. Soil Emergency Management Plan

The Soil Management Plan and spill response procedures and their importance will be regularly communicated to all personnel. Updates will be communicated and discussed at management meetings and TB production meetings. A visual inspection of soil conditions and all spills will be monitored and logged, including information on all spills, contaminant type, amount and removal from the site, with accurate GPS location of the spill and disposal sites of cleaned material.

In case of spills and detection, they should be immediately reported to the company's management, the Consultant, local government authorities, local institutions and relevant services (EPA, SES, GUOBDD, etc.) Next, you should take all necessary measures to eliminate the problem. Shut off the access of the spilled liquid to water sources and reservoirs, pour out sorbents, carry out protective works. When an accident occurs, records of all cases should be kept in the emergency log.

In order to prevent and stop such incidents, state and local rules and regulations regarding the preparation of emergency plans and notification requirements should be strictly followed.

Table 6. Spill response activities

Cause of pollution	Prevention
Flooding of the territory of construction bases with sewage in places of storage of containers	Arrangement of a storage place for containers on a hill, in containers under cover with the organization of a drain from the roof and drainage of wastewater.
Damage storage tanks for fuels and lubricants, paint, coolants; tanks for drinking and technical water	Arrange for materials to be stored in a secure location on site to reduce the risk of accidental damage, vandalism, arson, or theft. Regularly inspect storage areas and containers to ensure they are in good condition.
The formation of a large amount of sludge in places where vehicles are cared for	For washing and cleaning vehicles, locate places and facilities at a distance of at least 50 m from a watercourse or sewerage system on the territory. Install an isolated drainage system, either with a sump or pressurized system.
Earthworks may generate silt pollution and potential water pollution	A contaminated land assessment was carried out as part of the ground survey report to determine if any potential contaminants are present on the site. Additional checks during excavations will reveal any unexpected contamination. Before disposal, sludge water must be allowed to settle through settling tanks. However, the use of lagoons depends on the volume of sludge generated and where appropriate lagoons/test tanks will be used.

The risk of environmental pollution when using road transport	Traffic control will perform Contractor. Vehicles on the site must use the designated main routes.
Lack of protection for vulnerable watercourses	Where applicable, bunds and oil/diesel traps should be provided to reduce impacts on water quality in nearby streams. If possible, a buffer of 10 m should be used.

9.11. Noise and Vibration Management Plan

The Contractor will seek to minimize the risks associated with noise and vibration during construction work on the canal and ancillary works for the irrigation system. Specialized equipment is a technically complex vehicle, machine or mechanism that performs a certain range of work and is designed to solve a specific range of tasks. As a rule, special equipment is equipped with additional devices and devices that allow you to move, unload cargo, dig ditches, transport people, build or destroy various objects, etc.

A number of specialized machines (special equipment) will be used in the performance of work under the Project:

- 1) bulldozers,
- 2) excavators,
- 3) concrete delivery machines
- 4) dump trucks,
- 5) truck tractors with semi-trailers;
- 6) wheeled and caterpillar cranes,
- 7) auto manipulators and other crane machines and installations.

9.12. Noise and Vibration Control Procedure

The sources of noise and vibration will be: vehicles and mechanisms used for earthworks, concrete production and placement, as well as earthworks. During the daytime, the sensitivity of most of the existing receptors, identified as inhabited residential buildings in the immediate vicinity of the work sites (MPC up to 80 dB), is high, and the degree of impact is insignificant. Noise leads to a decrease in attention and an increase in errors in the performance of various types of work. Noise depresses the central nervous system (CNS), contributes to metabolic disorders, the occurrence of cardiovascular diseases, stomach ulcers, and hypertension.

At the construction stage, the predicted noise levels have the potential to create a more intense impact, since the specific object of impact is settlements, the technogenic environment is an artificially created environment as a result of human economic activity and its life support. Here, people's health largely depends on the quality of the built

environment. In the conditions of large settlements, the influence of the natural component on a person is weakened, and the effect of anthropogenic factors is sharply increased, which fully applies to noise, which is constant in the anthropogenic environment. In this case, in this “human environment”, the sensitivity to noise is quite high, but the degree of impact is classified as – Minor (1 point).

The most unfavorable levels of vibration propagating along the ground from the operation of machines will be very insignificant for objects of influence associated with the location of people, at a distance of 100 m from the road surface (background 84 dBA and when passing trucks 94 dBA). The construction site will use mechanisms that cause levels of ground vibration that are imperceptible at a distance of more than 30 m. For example, the level of ground vibration from a working bulldozer is invisible to people at a distance of about 20 m. Of course, there is a cumulative effect from the operation of several similar units, however, the nearest objects sensitive to such an impact will be at a distance of about 20 m, that is, the impact of vibrations transmitted over the surface of the earth can be generally recognized as negligible. In accordance with the good world practice of work in the industry, it is generally accepted that a change in the noise level of less than 3 dB is not perceived by a person. According to sanitary standards, the categories of sensitivity to vibration for the following objects are as follows:

Table 7. Categories of Vulnerable Objects to Noise and Vibration

Sensitivity	Description of environment/object
high	Places used for rest, sleep and quiet pastime, in particular: residential buildings, medical and educational institutions, cemeteries and religious institutions
Medium	Places used for highly concentrated work, such as offices
Low	Places not intended for regular use

Taking into account the fact that according to the current SN 2.2.4 / 2.1.8.566-96 “Industrial vibration, vibration in the premises of residential and public buildings” in the designed areas, the vibration level by vibration velocity is not subject to rationing. Here, when determining the degree of impact by categories of sensitivity of objects of influence to noise and vibration, a method was used based on the opinion of specialists, the positive world practice of work in the industry, as well as the legislation of the Kyrgyz Republic in the field of regulation of noise and vibration levels. Based on what has been said, it can be concluded that the impact of vibration for these objects is high, and the degree of impact is negligible. Therefore, the overall significance of vibration exposure is negligible.

The table shows measures for the maintenance of mechanisms and vehicles for the prevention of sanitary levels of noise and vibration.

Table 8. Measures to comply with noise and vibration levels

No.	Events	Deadlines	Responsible for performance
1	Keep road-building machines in a technically sound condition, constantly monitor the adjustment of the fuel supply and exhaust system. Make timely repairs	Constantly	Chief mechanical engineer
2	Construction work (types of work) to be carried out according to the schedule approved by the Engineer and determine the required equipment	Constantly	Chief Engineer
3	In settlements and near sensitive facilities (schools, hospitals, etc.), construction work with an increased level of noise and vibration should be carried out from 07:00 in the morning to 19:00 in the evening.	Constantly	Chief Engineer
4	Carry out, together with the Engineer, a survey of all dilapidated buildings adjacent to the canal	Before the start of road construction	Technical supervision, environmental protection specialist
5	Provide instrumental monitoring for noise and vibration	Before the start of road construction	Technical supervision, environmental protection specialist

9.13. Emission and dust management plan

The Contractor seeks to minimize the risks associated with emissions of pollutants and dust into the atmosphere during construction work on the off-farm canal and ancillary works for the irrigation system.

Emissions of pollutants spread within the land allotment and the SPZ of the facility. The distribution of most ingredients, especially inorganic dust, comes mainly from low fugitive sources within the job site. The largest contribution to the total emission is made by inorganic dust with a silicon oxide content of 20-70% during construction. It is assumed that the excess of MPC outside the land allotment and SPZ for any of the pollutants will not be observed, provided that the specified technological parameters are observed and measures are taken to minimize the impact of production on the environment.

Emissions of inorganic dust will occur within the working area, slightly changing the natural background of atmospheric air upwards. To reduce dusting, a dust suppression system is provided - moistening materials to the optimum moisture content, and in connection with the use of these measures aimed at reducing emissions into the atmosphere, the impact on atmospheric air can be assessed as minimal to medium. For atmospheric air, such changes are not critical, due to low emission rates, when changes

in the environment are of a moderate nature (minor emissions of gases or dust during movement). The natural environment is completely self-healing after the cessation of exposure. The table shows mitigation measures to reduce dust emissions.

Table 9. Mitigation measures to reduce dust emissions.

Options environmental environments	Kinds activities	Main types of environmental impacts	preventive actions / measures softening
Atmospheric air	Work vehicles, construction technology	Emissions from fuel combustion during machinery operation.	Ensure maintenance, repair of machines and mechanisms in accordance with the requirements of the operational documents of the manufacturer. It is not allowed to use vehicles with a faulty fuel system that exceeds the toxicity standards for engine exhaust gases.
		dusting at movement vehicles.	Limit vehicle speeds and select appropriate transport routes to minimize exposure to dust sensitive receptors.
		Dusting during transportation of bulk materials.	Equipment for vehicles transporting bulk materials with removable awnings. Delivery of cement to construction sites is carried out only in packaged sealed bags. It is necessary to monitor the cleanliness of the surrounding area to prevent the ingress of construction debris in order to minimize dust and pollution.
	Welding, insulating, finishing work	Emissions of pollutants into the atmospheric air	Organization of proper storage and transportation of flammable and hazardous materials (gas cylinders, bituminous materials, paints, solvents, glass and slag wool).
	Stone, concrete work.	dusting	Dust during dismantling, concrete work should be suppressed by spraying with water.
	Loading and unloading work	dusting	Dust reduction due to wet dust suppression.
	Burning waste at a construction site	Smoke. Emission of toxic substances during combustion.	It is forbidden to burn construction and household waste at the work site.

10. Site specific environmental management plan

The Contractor 's management follows the Bank's Environmental and Social Safeguard Policy, under which the Contractor has overall responsibility for the preparation, implementation and funding of the environmental management plan and monitoring of tasks related to the project. The Contractor shall carry out its functions through appointed responsible persons who will be responsible for the overall execution of the project and who will be tasked with the day-to-day management of the project.

Table 10. Environmental management plan

No.	Event	Goals	Responsible person/ Job title
1	Development and implementation of SSEMP on site	Execution of the terms of the contract	Specialist ecologist
2	Monitoring performance criteria	Regularly monitor the environment and submit quarterly reports on the main parameters to be monitored	Manager
3	Definition of legal requirements for activities	Compliance with legal requirements and cooperation with government agencies	Manager
4	Compliance with legal and other requirements	Compliance with legal requirements and cooperation with government agencies	Manager
5	Eliminate inconsistencies on the spot	Execution of provisions SSEMP	Manager / Ecologist
6	Monitoring, emergency preparedness and response	And fulfillment of the provisions of the SSEMP	Manager / Ecologist
7	Operating control systems control	Execution of the management plan	Manager
8	Identify, implement and control the process of competence, training and awareness	Implementation of the Learning Plan	Manager / Ecologist
9	To inform the staff on site for all staff and visitors of the Contractor	Publication of the SSEMP	Manager
10	project stakeholders	Implementation of the provisions	Manager
11	Conducting environmental audits of facilities and completing the checklist	Execution of provisions SSEMP	ecologist
12	Maintaining contact with local communities	Adhere to the procedures for interaction with the LCL and monitor the situation with the GRM	Manager

Local environmental and social experts The PIU will work with international experts to resolve complex issues that may arise and will provide constantly updated information in the form of reports to be submitted to the PIU. The Contractor 's staff will also be supported by Supervision Consultants. To the RP should control the development of the

project, the implementation of the environmental and social management plan of the EMP, the results of environmental and social monitoring and report them in a timely manner.

10.1. Contractor's environmental management system

This section provides an overview of environmental management issues that will be carried out as part of the overall implementation of the project. The roles and responsibilities of various individuals in carrying out these activities, identifying and strengthening the organizational capacity necessary to achieve the mandatory goals and implementation of the tasks set by the project.

The contractor has established an environmental management system to manage environmental and occupational health issues. The table below gives a brief description of this environmental management system.

Table 11. Contractor's environmental management system

Direction of implementation of the OS environmental management system	Responsible persons	Full name	Contact details/phone
Development of an environmental management and provision its implementation	director	Jorobekov T.	0777-313-555
Development of SSEMP	Chief Engineer - Specialist ecologist	Jorobekov T.	0777-313-555
Develop target and planned environmental indicators and action programs	Chief Engineer - Specialist ecologist	Mamatov A.	0773-170-217
Monitoring the effectiveness of the environmental management system	Specialist ecologist	Mamatov A.	0773-170-217
Provision compliance of activities with regulatory requirements of the legislation	Chief Engineer - Specialist ecologist	Jorobekov T.	0777-313-555
Monitoring the implementation of construction procedures	Chief Engineer - Specialist ecologist	Jorobekov T.	0777-313-555
Ensure compliance with established site construction procedures	All employees of the Contractor		

11. Staff training plan

The Contractor recognizes the need for proper training of personnel in the tasks they are required to perform in order to reduce the likelihood of waste generation. On a monthly basis, we will conduct briefings on waste management for operating personnel and engineers. Also appointed a permanent employee responsible for supervision of activities within the framework of the ESSMP - environmental specialist Mamatov A.0773-170-217. Records of briefings and inspections carried out will be kept at the Contractor's office.

Table 12. Staff training and capacity building

Strengthening institutional action	Position(s) (institutions, contractors, supervisory consultants)	Schedule
Mitigation measures Environmental and social assessment (principles, methodology)	PIC, Project Engineers, Personnel	3 days
Environmental monitoring	MNRETS, project engineers, members of the municipality, laboratory personnel	5 days

12. Annexes

12.1. Complaints Form

Detailed Information about the Applicant	
FULL NAME.: A yyl / okmotu : Area: City: Mob . Tel. : Email:	Village: City Region: Tel.: Fax:
Language:	<input type="checkbox"/> Kyrgyz <input type="checkbox"/> English <input type="checkbox"/> Russian
Describe the reason for the complaint / statement (complaint about what and complaint against whom): 	
Complaint filed date: Hearing date: Findings/Decisions of the Post-Hearing Application: 	
If the complaint/statement is not resolved, write the reasons: 	
Signature: _____ The date: _____	

12.2. Notification Form

<p>NOTICE on non-compliance of the Contractor's activities with the provisions of the SSEMP / SEMP, public health legislation, norms and rules for the use and protection of natural resources</p> <p>" _____ " _____ 20__ year . _____</p> <p>To _____ the head of the Contractor</p> <p>By me, full name _____, in the presence of _____ full name of the representative of the Contractor</p> <p>During the inspection, the following inconsistencies of the Contractor's activities with the provisions of the SSEMP / EMP, legislation on public health, norms and rules for the use and protection of natural resources were revealed:</p>		
No.	Name of inconsistencies	Subject of violations/inconsistencies
	Compiled by: PKK Consultant signature	Full name
	Received: Contractor's Representative signature	Full name

12.3. Environmental checklist template

12.3.1. Construction site / work camps

CONSTRUCTION SITE / WORK CAMPS /	Passed	I failed	Comments
Plan			
Suitable site: away from agricultural land / real estate			
Minimize damage to existing vegetation cover			
Plant soil stored for reconstruction			
Aligned site roads			
Appropriate transverse drainage facilities			
Bare slopes covered with grass			
Wastewater			
Appropriate collection/processing of the object			
Vehicles and equipment are washed out of natural water bodies in such a way as to prevent direct discharge of waste into water bodies.			
Waste water collection/disposal			
No risk of contamination for groundwater			
No risk of flood pollution			
Appropriate disposal of hazardous waste			
Garbage/scrap areas are fenced off			

12.3.2. Fuel storage/vehicle repair areas

Fuel storage/vehicle repair areas			
Fuel storage tanks are located 20 m from any watercourse.			
In a bound rigid position			
Corresponding bandwidth			
Fire-fighting equipment			
Waste water drain / oil traps			
Old tires are stored and transferred for final disposal			
Old and removed batteries are stored and transferred for final disposal			
Used oil is reused, stored and transferred for final disposal			
Health and labor protection			
No incineration			
Reliable fencing around and inside the site			
No informal settlement outside the camp			
Appropriate street lighting			
Safe electrical systems			


Ensuring adequate water supply and hygiene conditions			
Suitable sewerage; daily check			
Appropriate garbage collection			
No pests and taking preventive measures			
Clean housing/kitchen			
Regular inspection by the public health authority			
No wetlands			
There are traffic and warning signs in the working area			
Workers have been trained in occupational health and safety and emergency preparedness.			
Workers wear uniforms and protective clothing appropriate for the process (gloves, helmets, respirators, goggles, etc.).			
Fish passes / fish barriers			
Install fish passages where fish migration is difficult			
Install fish guards to avoid invading fish			
The corresponding design and implementation must be verified by the relevant authorities.			
Water quality (clean)			
river			
Other rivers			
road ditch			
Standing water near the settlement			
Erosion			
Appropriate roadside sewerage			
Sludge traps			
Rapid landscaping of roadside slopes / ditches			
Renovated site for placement of soil dumps			
Fire			
No burning			
Fire sensors			
Fire-fighting equipment			
Fire fighting plan			
Proper torch storage			
Checking the last date the fire extinguisher was used			
Air pollution			
Dust control with a watering machine or, if necessary, spraying			
Vehicles and machinery have a valid vehicle inspection permit from the appropriate official agency.			
Noise			
If there are sensitive facilities such as schools, hospitals, nursing homes, residential areas,			

the noise level does not exceed 80 dB(A).			
If necessary, the operating personnel use noise suppression equipment.			
solid waste			
Separation of waste is applied (plastic, metal, glass, organic materials, paper, etc.) and transferred for recycling or proper disposal.			
Municipal solid waste is removed to a proper disposal site			
The container, packaging, municipal solid waste were reused and transported to the burial place.			
Excavated soil is stored with proper height and side slopes and reused where applicable.			
social issues			
The public that will suffer from the construction works has been informed.			
Alternative routes or crossings have been created where public access was difficult.			
The Contractor has established grievance mechanisms for public and operational staff.			
Complaints received by the Contractor from public or working personnel			
If complaints have been received, then they should be resolved			
Cultural and historical monuments			
Works are suspended if historical/archaeological remains are accidentally discovered and reported to the public authorities responsible for the preservation of cultural heritage.			

12.3.3. Material sources/ transportation

SOURCING OF MATERIALS / TRANSPORTATION	Passed	I failed	Comments
sand pits			
Acceptable site location			
Contamination test			
Suitable protective dams			
Avoid working in a live watercourse/existing body of water			
Accumulated plant soil			
Proper drainage / silt traps			
Recovery plan including blueprint			
Material road			
Limited soil flow			
Appropriate transverse drainage			
There are speed limits			
Dust control			
recovery plan			
Protection of flora and fauna			
Trees are cut down at the construction site or along the transportation route with permission.			
No hunting/fishing			
Enclosed work areas			
Minimal clearing/hunting/significant drainage			
landfill			
Slopes 1:4			
Accumulated plant soil			
Avoid pasture/agricultural land			
careers			
Acceptable site selection (existing quarry preferred)			
Work plan			
recovery plan			
No garbage dumps			
No pollution of adjacent rivers			
Flammability control			
Noise			
No hunting			
Blasting with controlled measures			
In the case of excavation, the side slopes and depth comply with geotechnical requirements.			
In the case of ledge formation, side slopes must be laid in accordance with geotechnical requirements.			

12.4. Statement of Understanding and Compliance

КЫРГЫЗ РЕСПУБЛИКАСЫ ЖООПКЕРЧИЛИГИ ЧЕКТЕЛГЕН КООМ ГИДРО.ТЕХ.СТРОЙ		КЫРГЫЗСКАЯ РЕСПУБЛИКА ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ ГИДРО.ТЕХ.СТРОЙ
714000 Кыргыз Республикасы Ош шаары, Ленин көчөсү, 287 Телефон: +996 (3222) 2-66-64 559617@mail.ru gidro@mail.ru	Kyrgyz Republic, 714000 Telephone / Fax: + 996 (322) 2-66-64 287 Lenin street, Osh 559617@mail.ru gidro@mail.ru	714000, Кыргызская Республика г.Ош, ул. Ленина, 287 Телефон: + 996 (3222) 2-66-64 559617@mail.ru gidro@mail.ru


Исх. №99 от «22» декабря 2022г.

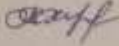
Заявление о понимании и соблюдении нормативных требований

Я, нижеподписавшийся, Жоробеков Таалайбек Казыевич, в качестве директора ОсОО "Гидро.Тех.Строй", этим заявлением свидетельствую об обязательстве, что вся охрана окружающей среды, смягчение негативных социальных проблем, безопасность гигиены труда и здоровье и безопасность сообщества Подрядчика будут иметь наивысший приоритет при выполнении договорных обязательств и свидетельствуют о понимании фирмой, и средства обеспечения надлежащего соблюдения нормативных актов, касающихся строительных работ в Кыргызстане, в частности, в отношении соблюдения

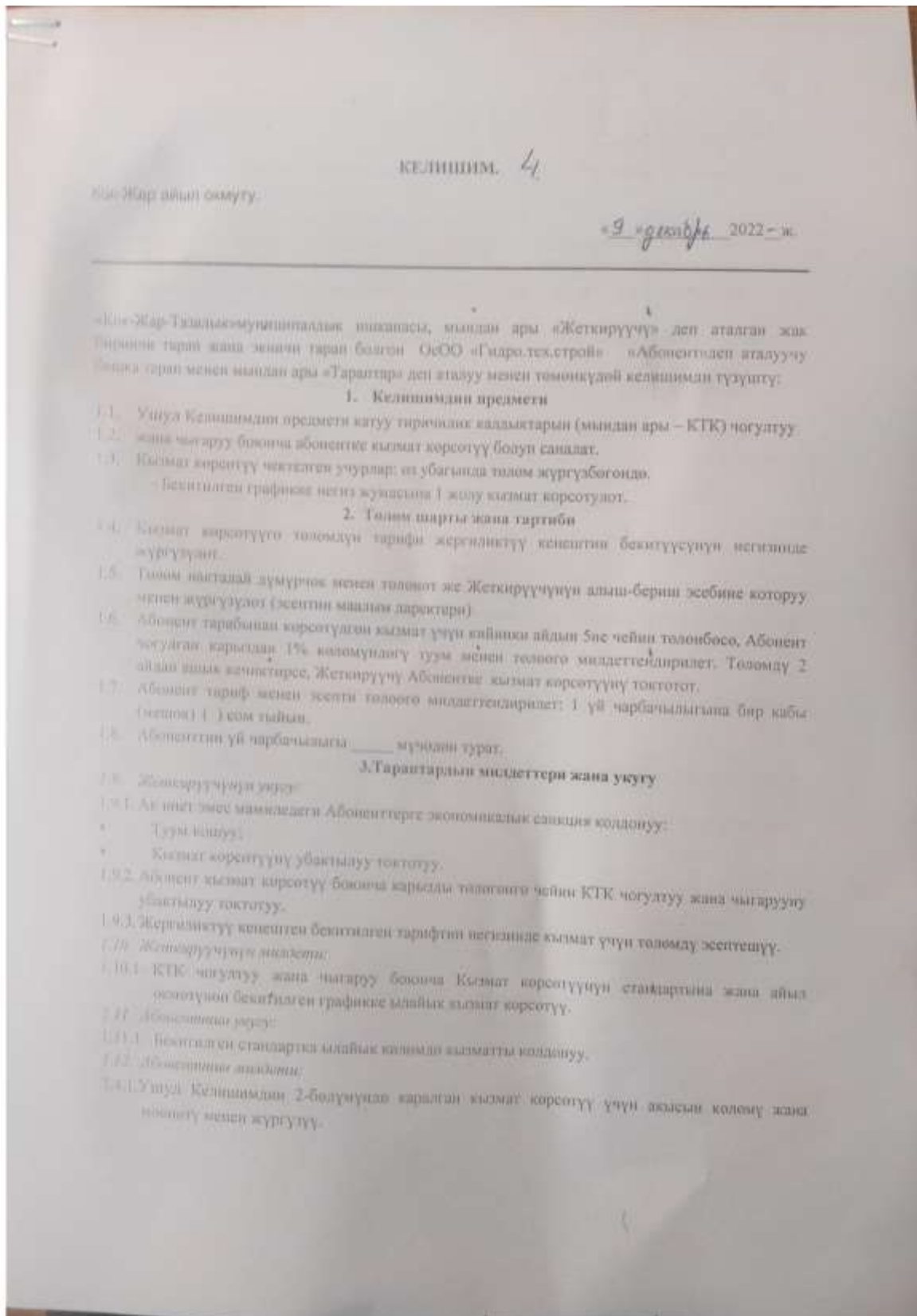
- Все законодательство в области безопасности и промышленности, включая, помимо прочего, Закон «Об общественном здравоохранении» № 248 от 24 июля 2009 года (В редакции Законов КР от 16 мая 2013 года № 72, 29 декабря 2014 года № 171, 6 июля 2016 года № 99, 29 марта 2019 года № 40, 24 апреля 2019 года № 53, 7 мая 2020 года № 52)
- правила и положения в Кыргызстане и органы власти, обладающие юрисдикцией.
- Все действующие природоохранные законы и нормативные акты, включая как национальные, так и местные нормативные акты, касающиеся следующего, но не ограничиваясь следующим:
 - Шум
 - Вибрация
 - Загрязнение воздуха
 - Загрязнение воды
 - Утилизация твердых бытовых отходов
 - Утилизация жидких отходов
 - Удаление опасных отходов
 - Санитарные условия (водоснабжение, гигиена, канализация и т.д.)
 - Безопасность дорожного движения для населения

Директор
ОсОО "Гидро.Тех.Строй"



 Жоробеков Т.К.

12.5. Contract for the removal of household waste



5. Катуну тиричилик таштандыларынын колому жана толумдору.

5.1 Кызмат көрүлүүчү объекттин аты ООО "Гирно Тек. сирей"

5.2 Кызмат көрүлүүчү объекттин дарегин Кок-Жар а/c Тарбаган аймин.

5.3 Кызмат көрсөтүү убагы _____

Бардыгы 18 ай

5.4 Катуну тиричилик таштандыларынын колумун тактоо

№	Жумушчу		Ишканадын жалпы аянты		Отургузуучу орун, орундар		Окуучулар		Учур орундары	
	Коефф-т	Куб.м жыл	К.м	Куб.м жыл	Коефф-т	Куб.м жыл	Коефф-т	Куб.м жыл	Коефф-т	Куб.м жыл
1										
2										
3										
№	Катталгандардын саны		Склад		Одунун территориясы		Дарактар		Жалпысы Жылдык өлчөм түзөт	
	Коефф-т	Куб.м жыл	К.м	Куб.м жыл	Коефф-т	Куб.м жыл	Коефф-т	Куб.м жыл	Куб.м жыл	Куб.м жыл
1	50	75								75
2										
3										

5.5 Катуну тиричилик таштандыларынын колому жана келишимдин суммасы

№	Аталышы	Кызмат көрсөткөн убакта	Бир айда
1	Катуну тир-к таш-н колому		
2	Сумма (Налогсуз)		75
3	НДС - 12%		37575
4	НСП 2%		
5	Келишимдеги сумма налогу менен		37575
6			

Катуну тиричилик таштандыларынын колому жана толумдору түзгөн

6. Жыктардын даректери жана реквизиттери

№	Аталышы	Аткаруучу	Буюртманы
1	Почталак дарегин	723410	714000
2	Телефону	0773 763156	0777 313555
3	Расч.счет	1032120000887457	121200020004216
4	Банктын аталышы	ФДАО	ОАО Росс-Кредбанк
5	БИК	103021	121004
6	ИНН	0240120310034	00606200110043



Ахмедов А.В.
аты-жону



Буюртманы:
Мербаев К. Ш. К.
КОНУ