Semi - Annual Environmental Monitoring Report

Project №: 50176-002
January – June 2023

Kyrgyz Republic: Issyk-Kul Wastewater Management Project financed by the Asian Development Bank

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For: Issyk-Kul Wastewater Management Project under the Department for Water Supply and Sewerage Development (DDWSSD) under the State Agency for Architecture, Construction, Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic

Endorsed by: S. A. Omurkanov, PMO Director

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Abbreviations

ADB	Asian Development Bank
APS	Architecture and Planning Specifications
APU/ETU	Russian acronym for Architectural and Technical Approval
BOD_5	Biological Oxygen Demand (5 day)
BoQ	Bill of Quantities
BV	Balykchy Vodokanal
COD	Chemical Oxygen Demand
CabMin KR	Cabinet of the Kyrgyz Republic
DDWSSD	The Department of Drinking Water Supply and Sewerage Development under the Cabinet of the Kyrgyz Republic
DSC	Design and Supervision Consultant
EA	Executing Agency
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ETS	Engineering and Technical Specifications
GKR	Government of Kyrgyz Republic
ICB	International Competitive Bidding
IEE	Initial Environmental Examination
IFC	International Finance Corporation
ISDP	Issyk-Kul Sustainable Development Project
ITA of MNRETS	Issyk-Kul Territorial Administration
IWMP	Issyk-Kul Wastewater Management Project
KVK	Vodokanal, Karakol
LARP	Land Acquisition and Resettlement Plan
MNRETS	Ministry of Natural Resources, Ecology and Technical Supervision of Kyrgyz Republic
NTP	Notice to Commence
OOS	Russian acronym for Environment Protection
OVOS	Russian acronym for “Assessment of Environmental Impacts”
PIU	Project Implementation Unit
PMO	Project Management Office
PRGPKRIKR	Permanent Representative of the President of the Kyrgyz Republic in Issyk-Kul Region
SAACHCS	State Agency for Architecture, Construction, Housing and Communal Services under the Cabinet of the Kyrgyz Republic

SAEMR	Semi - Annual Environmental Monitoring Report
SEMP	Site-Specific Environmental Management Plans
SNiP	Russian acronym for Construction Codes and Regulations
SPZ	Sanitary Protection Zone
WSS	Water supply and sanitation
WWTP	Wastewater Treatment Plant

Units and Currencies

°C	degree Celsius
ha	hectare
km	kilometers
m³	cubic meters
m³/d	cubic meter per day
mg/l	milligram per liter
Mg/Ol	milligram Oxygen per liter
MLD	million liter per day
US $	United States Dollar

EXECUTIVE SUMMARY

Project name: Issyk-Kul Wastewater Management Project	
Executing Agency	The Department of Drinking Water Supply and Sewerage Development under the Cabinet of the Kyrgyz Republic
Implementing Agency	Office of the Plenipotentiary Representative of the President of the Kyrgyz Republic in the Issyk-Kul region, Mayor's Office and Vodokanl of Balykchy and Karakol cities
Environment Safeguards Categorization	Category "B"
Environment Safeguards Documentation	(i) Initial Environmental Examination (disclosed on September 2018) (ii) Environmental Monitoring Report for the period January to June 2020 (disclosed on October 2020) (iii) Environmental Monitoring Report for the period July to December 2020 (disclosed on March 2021) (iv) Environmental Monitoring Report for the period January to June 2021 (disclosed on November 2021) (v) Environmental Monitoring Report for the period July to December 2021 (disclosed on April 2022) (vi) Environmental Monitoring Report for the period January to June 2022 (disclosed on December 2022) (vii) Environmental Monitoring Report for the period July to December 2022 (disclosed on March 2023) (viii) Initial Environmental Examination for Balykchy WWTP (disclosed on April 2023)
Project Stage Obtained	Construction stage
Detailed Design Required Post-Approval	(i) <u>Sewerage Network:</u> Detailed design for all the four sewerage network packages has been finalised and approved before commencement of the construction works. 1. Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 1) 2. Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 2)

<table>
<tr><td></td><td colspan="3">3. Construction for Expansion of Sewer Network in Karakol- (Contract No. W2 Lot 1)
4. Construction for Expansion of Sewer Network in Karakol– (Contract No. W2 Lot 2)

(ii) <u>Pump station and Waste Water Treatment Plants (WWTPs)</u>: Detail design for the Balykchy WWTP has been finalised and approved before commencement of the construction works. For the Karakol WWTP and for the Pump station proposed at Karakol the design is in progress. The contract packages are details as follow
5. Pump Station and Rising Main 1.7km in Karakol (Contract No. W2)
6. Construction of Karakol Waste Water Treatment Plant (WWTP) (Contract No. W3)
7. Construction of Balykchy Waste Water Treatment Plant (WWTP) (Contract No. W4)</td></tr>
<tr><td>Contract(s) Awarded</td><td>Name of Package</td><td>Description</td><td>Name of Contractor</td></tr>
<tr><td></td><td>Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 1)</td><td>This contract works include construction of 5.34 km sewerage network in Western part of Balykchy and includes the following streets:
• Togolok Moldo Street
• Mambetalieva Street
• Ozyornaya Street</td><td>LLC Impuls - Osh</td></tr>
<tr><td></td><td>Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 2):</td><td>Contents of this contract consists of construction of 5.32 km sewerage network in Eastren part of Balykchy in the following streets:
• Toktosunova Street
• Sharipove Street</td><td>Profit Express LLC</td></tr>
</table>

		• Kaldybacva Street	
	Construction for Expansion of Sewer Network in Karakol - (Contract No. W2 Lot 1)	Total length of 6.71 km of sewerage network will be constructed under this contract in the Southern part of Karakol in the following sites: • Akhunbaeva Street from Lenin Street to Moskovskaya Street • Duisheeva Street from Dzhusayev Street to Moskovskaya Street • Moskovskayaa Street from Akhunbaev Street to Oktyabrskaya Street	LLC ME "MINUR"
	Construction for Expansion of Sewer Network in Karakol – (Contract No. W2 Lot 2)	This contract contains construction of 5.94 km sewerage network at the North side of Karakol at the following sites • Oktyabrskaya Street from Gebze Street to Kuchukov Street • Dzhusayev Street from Przhevalsky Street to Shorukov Street	Consortium of "Inzhenernaya zashchita" LLC and "Polimer Snab Asia" LLC
	Pump Station[1] and Rising Main 1.7km in Karakol	This item consists of SPS-4 Pump Station in Pristan, sewage collector from SPS 4 –SPS 2, 200 m Pressure	-

[1] Detail design is completed and submitted to State Expertise for approval in April and approval was received on 05.06.2023.

	(Contract No. W2)	Line crossing Karakol River and reconstruction of 28 manholes	
	Construction of Karakol Waste Water Treatment Plant (WWTP) (Contract No. W3) [2]	Wastewater Treatment plant with the capacity of 12,000 m^3/day will be constructed on "Design & Build" contract.	Joint Venture HAYAT GROUP LLC and BIOWORKS Verfahrenstechnik GmbH
	Construction of Balykchy Waste Water Treatment Plant (WWTP) (Contract No. W4)	Wastewater Treatment plant with the capacity of average 4,200 m^3/day will be constructed on "Design & Build" bases.	China Road and Bridge Corporation
Bidding Document(s) Include EMP Cleared by ADB	Yes, EMP has been included in the bidding document for all ongoing packages (Except for the Karakol WWTP and Pumping Station packages). The Balykchy WWTP contractor was instructed to adopt the mitigation measures suggested in the Initial Environmental Examination (IEE) for Balykchy WWTP (disclosed on April 2023)		
Contract(s) Awarded Include EMP Cleared by ADB	Yes, EMP is included in the contract award for all ongoing packages (Except for the Karakol WWTP and Pumping Station packages). However, based on the site inspection by the PMU, PIU and DSC (for impacts that are not included in the EMP) additional mitigation/ management measures shall be suggested.		
National Environment, Health and Safety Clearance(s) Obtained	Not applicable		
Contractor(s) Given Access to Site	Yes, Contractors are given access to the project site and construction works are in progress for (i) Contract No. W1 Lot 1 and 2, Contract No W2 Lot 1 and 2, (iii) Contract No W4.		

[2] Final design works, preparation of EMP and Environmental Safeguards Documents are in process

Construction Financial Progress (%)	**Name of Package**	**Description**	**Name of Contractor**	**Financial Progress**
	Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 1)	This contract works include construction of 5.34 km sewerage network in Western part of Balykchy and includes the following streets: • Togolok Moldo Street • Mambetalieva Street • Ozyornaya Street	LLC Impuls -Osh	87.37%
	Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 2):	Contents of this contract consists of construction of 5.32 km sewerage network in Eastren part of Balykchy in the following streets: • Toktosunova Street • Sharipove Street • Kaldybacva Street	Profit Express LLC	91.20%
	Construction for Expansion	Total length of 6.71 km of sewerage network	LLC ME "MINUR"	68.38%

	of Sewer Network in Karakol - (Contract No. W2 Lot 1)	will be constructed under this contract in the Southern part of Karakol in the following sites: • Akhunbaeva Street from Lenin Street to Moskovskaya Street • Duisheeva Street from Dzhusayev Street to Moskovskaya Street • Moskovskayaa Street from Akhunbaev Street to Oktyabrskaya Street		
	Construction for Expansion of Sewer Network in Karakol – (Contract No. W2 Lot 2)	This contract contains construction of 5.94 km sewerage network at the North side of Karakol at the following sites • Oktyabrskaya Street from Gebze Street	Consortium of "Inzhenernaya zashchita" LLC and "Polimer Snab Asia" LLC	77.30%

		to Kuchukov Street • Dzhusayev Street from Przhevalsky Street to Shorukov Street		
	Pump Station[3] and Rising Main 1.7km in Karakol (Contract No. W2)	This item consists of SPS-4 Pump Station in Pristan, sewage collector from SPS 4 –SPS 2, 200 m Pressure Line crossing Karakol River and reconstruction of 28 manholes	-	-
	Construction of Karakol Waste Water Treatment Plant (WWTP) (Contract No. W3) [4]	Wastewater Treatment plant with the capacity of 12,000 m^3/day will be constructed on "Design & Build" contract.	Joint Venture HAYAT GROUP LLC and BIOWORKS Verfahrenstechnik GmbH	-
	Construction of Balykchy Waste Water Treatment	Wastewater Treatment plant with the capacity of average 4,200 m^3/day will be	China Road and Bridge Corporation	55.92%

[3] Detail design is completed and submitted to State Expertise for approval in April and approval was received on 05.06.2023

[4] Final design works, preparation of EMP and Environmental Safeguards Documents are in process

	Plant (WWTP) (Contract No. W4)	constructed on "Design & Build" bases.		
Unanticipated Impacts including Change of Scope or Design	No major changes in the scope or design observed in the proposed Sewerage Network for all four packages. For both the WWTP packages are on the DBO basis. For Balykchy WWTP, the contractor has shared the design and got it approved, now the construction is in progress. For Karakol WWTP, the design is in progress. Similarly, for Karakol Pumping station the conceptual design has been approved, the bid document preparation is in progress.			
Number of Site Inspections and Audits Undertaken by Environment Safeguards Staff in Reporting Period	DSC's Environmental specialist visited Balykchy and Karakol WWTP and Sewerage network sites on27th April 2023, 18th and 19th May 2023, 15th and 16th June 2023 and 27th to 29th June 2023 to monitor the works of the Contractors			
Corrective Action Required from Previous Reporting Period	Yes, the contractors are requested to (i) Conduct H&S training to the labors/ construction workers. (ii) Environmental monitoring has to be conducted at Balychy WWTP site			
Outstanding Corrective Action this Reporting Period	Yes, corrective actions are instructed through issuance of NCs, for which the contractor shall take necessary actions			
Non-Compliances (NC) Recorded this Reporting Period	Yes, nearly seven minor NC's are reported from the site, the details are given in the section 8.1			
Corrective Action Required	Except 3 minor NC's, rest of the identified NCs are compiled by the contractors within the reporting period (January to June 2023),.			
Number of Health and Safety Incidents	Severe incidents are not recorded, however minor on-site injuries are recorded.			
GRM Functional	Yes, The GRM was created at the project preparation stage in accordance with the order of the State Agency for Architecture, Construction, Housing and Communal Services under the Government of the Kyrgyz Republic dated June 21, 2018 No. 219			

	and updated at the project implementation stage in accordance with the order dated July 2, 2019 No. 153. The new order was issued by the State Agency of Water Resources under the Government of the Kyrgyz Republic No. 145 dated July 29, 2020.
Number of Unresolved Grievances from Prior Reporting Period	Grievances are not recorded during the monitoring period from January to June 2023
Number of Grievances Received in Reporting Period	
Number of Grievances Resolved this Reporting Period	
Number of Grievances Still Outstanding	
Number of Grievances referred to Court of Law	
Number of Grievances referred to the Accountability Mechanism	

1 INTRODUCTION

1.1 Preamble

1. This report is the 7th Semi-Annual Environmental Monitoring Report (SAEMR) for the Issyk-Kul Wastewater Management Project (IWMP). It covers the IWMP activities between the period of 01 January, 2023 and 30 June, 2023.

1.2 Headline Information

2. In order to secure sustainable and reliable wastewater treatment services in Balykchy city and Karakol city, the existing sewerage networks will be improved, and expanded (new connections will be added) and the existing abandoned WWTP's will be replaced with new WWTP's (with higher capacity and modern technology) constructed at Balychy city and Karakol city. The IWMP is expected to achieve the following outputs:

i. Balykchy and Karakol wastewater systems improved.
ii. Improved capacity of "Vodokanals"
iii. Septage management services improved and sanitation and hygiene awareness increased.

3. At present, the total coverage of Households with sewage network is at a low level, i.e. only 35% in Balykchy city and 45% in Karakol city. In this regard, the Issyk-Kul Wastewater Management Project (IWMP) focuses on sewage treatment facilities, expansion of sewerage networks, considering the connection of an additional 850 households in Balykchy city and 1200 households in Karakol city. The implementation of this activity will increase the coverage rate to an estimated 45% in Balykchy city and 60% in Karakol city.

4. The IWMP has been classified as environmental assessment category "B" according to ADB Safeguard Policy Statement (SPS) 2009, the impacts of the subproject were assessed in the Initial Environmental Examination (IEE). The project envisages temporary environmental impacts during the construction phase mainly due to dust, noise, vibration, solid waste and movement of construction equipment, as well as obstructed traffic. These impacts can be controlled, minimized and mitigated.

5. During the reporting period within the framework of the project

A. <u>Balykchy City</u>

- **<u>Contract No. W1 Lot 1 (Contractor: Impulse Osh Ltd)</u>**. The Contractor has completed almost all excavation, piping and manholes including the additional works. Checking the lines has started and the Contractor started removing the

defects found out during the checking of the lines. Contractor is going to start asphalt works.

- **Contract No. W1 Lot 2 (Contractor: Profit Express Ltd)**. The Contractor has completed almost all the works within the scope of the Contract including the additional works. Now, the Contractor is asphalting the walkways.
- **Contract No. W4 (Contractor: CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture (Lead by China Road and Bridge Corporation)).** The Contractor have performed the following activities
    - **Biological Tank.** Formwork installation of the walls of Biological Tank has been completed and the first stage of walls was concreted on 15.04.2023. On 27.05.2023, the second stage concreting is completed.
    - **Sedimentation Tank.** Presently, Contractor is working on formwork installation and preparing for concreting which is expected to be completed by 10th July.
    - **Inlet Regulating Tank.** In April 2023 the Contractor completed installation of reinforcing bars and formwork installation has been completed and concrete poured on 02.05.2023. After removal of the formwork and cleaning, the Contractor has started filling the tank with water for testing.
    - **Administrative Building.** The Contractor has continued installing the brick walls and started plastering the walls.
    - **Screenings Building.** On 13.06.2023, concrete of the lower walls of the coarse screen is casted. Reinforcement and formwork installation for the columns and ceiling for the upper part is ongoing. Lean concrete for the foundation of fine screen building is casted.
    - **Blower and Boiler room.** Formwork and concreting of foundation has been completed.
    - **Mechanical Workshop.** Reinforcement and formwork installation for the foundation and concreting works have been completed

B. Karakol City:

- **Contract No. W2 Lot 1 (Contractor: Minur Ltd).** Contractor has completed 35,074 m^3 excavation works out of 43,086.90 m^3 total amount (81.401%); has procured

100% and installed 5,518 m of various diameters Polyethylene pipes out of total 6,718 m realizing 82.14% progress in piping while installing 411 m^3 of manholes out of 506.92 m^3 in total (progress 81.14%).

- **Contract No. W2 Lot 2 (Contractor: Inzhenernaya Zashchita Ltd. and Polymer Snab Asia Ltd).** Contractor has completed around 30,011 m^3 excavation works out of 32,935.00 m^3 total amount (91.12%) and has procured 100% and installed 5,419 m of various diameters Polyethylene pipes realizing 90.62% progress in piping while installing approximately 344 m^3 of manholes out of 409.22 m^3 in total (progress 84.07%).
- **Contract No. W2. Pump Station and Rising Main-1.7 km in Karakol**.
    - Conceptual design has been submitted for APU/ ETU approval on 17.03.2023 and approval received on 19.04.2023.
    - Detail design is completed and submitted to State Expertise for approval in April and approval was received on 05.06.2023.
    - IEE (Initial Environmental Examination for Karakol SPS-4 and additional works) has been prepared and submitted to PMO on 24.04.2023 and on 22.05.2023 updated according to the comments of PMO and submitted.
    - OVOS was prepared and submitted to PMO on 02.066.2023.
    - Preparation of Bidding Documents will start soon.
- **Contract No. W3, Construction of Karakol WWTP (Contractor: HAYAT Group LLC and BIOWORKS Verfahrenstechnik GmbH).**
    - Contractor has started mobilization and final design works for process and basic design as well as preparation of EMP and Environmental Safeguards Documents.
    - Process and basic design drawings has been almost approved by the Consultant.
    - EMP, submitted by the Contractor, has been reviewed by DSC.
    - On April 6th, Contractor has organized a presentation on Conceptual Design.
    - Contractor has presented a local designer for adaptation of detailed designs and on 20.06.2023 a meeting was held with the civil works designers of the Contractor and DSC's Structural engineer

2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

6. The Issyk-Kul Wastewater Management Project is aimed to maintain the sensitive ecosystem balance of Issyk-Kul Lake, improve and expand access to reliable, sustainable and affordable sewerage services in Balykchy and Karakol, and provides the construction and expansion of existing wastewater treatment systems, strengthening institutional capacity and increasing the sustainability of water supply and sanitation services (WSS) in Balykchy and Karakol. The project outcomes should ensure

(i) Improved sewerage and wastewater treatment systems in the cities of Balykchy and Karakol,
(ii) Strengthened institutional capacity of Vodokanal Municipal Enterprises, and
(iii) Improved septic sludge management and sanitation.

7. This project will increase access to potable water and safe sanitation services, including use of proven technologies for treatment and disposal of solid and liquid waste in the cities of Balykchy and Karakol and includes three components;

- Component (A): Wastewater Treatment and collection.
- Component (B): Enhancing Vodokanals institutional and service-oriented capacity;
- Component (C): Improve awareness for public health implications and wastewater management in Balykchy and Karakol.

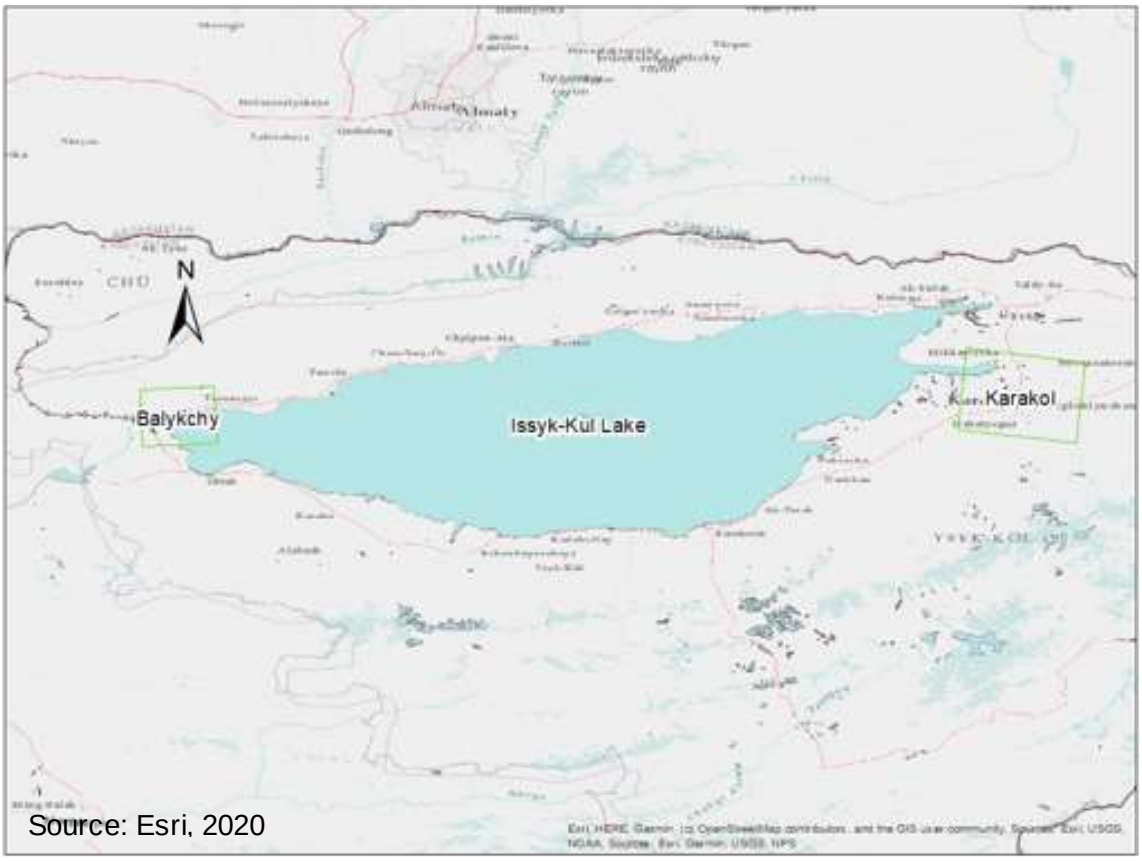

Figure 2-1: Location of Project Towns of Balykchy and Karakol

a) Balykchy Sewerage Network Extension:

8. Currently, 4156 households and 106 commercial/ industrial/ institutional/ tourism organizations are connected to the sewerage system in Balykchy. The existing sewerage network consists of 64 km of non-pressure sewers built in the 1970s and currently serves about 40% of the population. IWMP will provide 10.6 km of sewer networks on six streets, which will connect about 4015 additional households (55%) to the sewer network.

b) Karakol Sewerage Network Extension:

9. About 38% of all households in Karakol are connected to the sewage system, most of which live in multi-story buildings. Currently, about 25,000 people (7,301 households) use services of a centralized sewage system. The length of the sewerage network of the city is approximately 110 km. In addition, the municipal enterprise "Karakol Vodokanal" provides sewerage services to 38 budget organizations, 251 commercial enterprises and 1 industrial enterprise. IWMP will provide 12.7 km of sewer networks on six streets, which will connect about 3,248 additional households (55%) to the sewer network.

c) Construction of a Pump Station (PS – 4) at Pristan, Karakol city:

10. In addition to the non-pressure sewerage system in Karakol, the village of Pristan (TSU No. 8) is served by a gravity-pressure combined system. This system includes 4 pump stations, 3 of which were rehabilitated under the first phase of Issyk-Kul Sustainable Development Project (IKSDP). The fourth sewage pump station is located in close proximity to Issyk-Kul Lake and is in a semi-ruined non-operating stating. Based on loads resulted from wastewater volume, the technical solutions for SPS No.4 in Karakol City are adopted as 2 phases of construction:

- The following structures are considered for Phase 1 of construction.
    - The inlet reservoir is a metal wastewater reservoir with a storage capacity of up to 50 m^3.
    - Site for placement of a reservoir has an area of 1350 m^2 with perimeter fencing along the protection zone and vehicle access.
    - Sewage trucks with a tank volume of 16 m^3 to transport out sewage.
- The following structures are considered for Phase 2 of construction.
    - Sewage Pump station with two submersible pumps (one - operating, one - standby). The capacity is 30 m^3/h, head is 35 m. The pumps will work in turns in the order determined by an automatic control system.
    - Pump station is supplied as a package, it includes (i) Fiberglass receiving tank, (ii) Submersible pumps, (iii) Pump control panel and (iv) Pavilion above the pump station with an approximate dimension of 2.5x2.5 m.
    - Emergency reservoir (metal structures) with an effective volume up to 50 m^3
    - Pressure collector for a length is 2.9 km shall be installed underground. At intersection with Karakol river, the collector will be installed in a case with D_u+350

mm, which is placed inside one-span metal truss. A special manhole with discharge valve will be installed at the lower part of collector for dewatering of the collector lower part.

- On-site power supply networks with the installation of own transformer 25 kVA. Power load is 22 kW.
- Pump station site with an area of 1350 m^2 with vehicle access and fencing along the perimeter.

d) Balykchy WWTP Reconstruction

11. The Balykchy Sewage Treatment Plant is designed and will be built to cope with 4200 m^3/d incoming wastewater. Process includes mechanical treatment stage comprising coarse screen, fine screen and grit removal units, biological treatment and sludge drying. Biological treatment unit is an integrated sewage treatment tank designed for the Project, which consists of the modified A20 biochemical tank, sludge pump tank, secondary sedimentation tank and secondary lift pump tank.

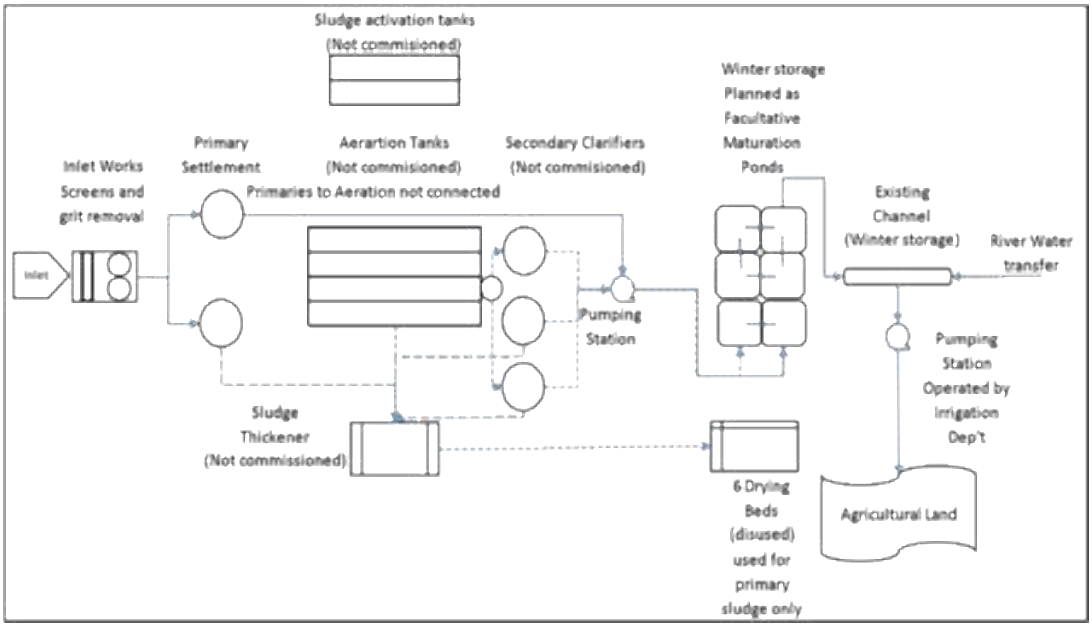

Figure 2-2: Schematic Illustration of Balykchy WWTP Process

e) Karakol WWTP Reconstruction

12. The existing wastewater treatment plant is located in the northern suburb of the city and were constructed in 1980 of the last centuries. Currently, the actual quantity of influent wastewater received by WWTP has not been measured, however, according to estimates of the Karakol Vodokanal (KVK), the average existing flow is 7,500 m^3/day with the influent flow of about 6,000 m^3/day in the winter and 12,000 m^3/day in the summer. New Karakol WWTP will be designed and constructed according to the project implementation method “design and construction”.

2.2 Project Contracts and Management

13. A list of key organizations involved in the implementation of the Environmental Safeguards are given Table 2-1 and illustrated at Figure 2-3. It includes names of experts from Project Management Office, Design and Supervision Consultants and Contractors.

Table 2-1: Environmental Safeguards of IWMP

Borrower	Ministry of Finance of the Kyrgyz Republic
Executing Agency	Issyk-Kul Wastewater Management Project under Department of Drinking Water Supply and Sewerage Development
Project Management Office (PMO)	
PMO Environmental Specialist	Mr. Kylychbek Sheralievich Zhundubaev
e-mail:	environmental@iwmp.kg
Tel:	+ 996 507 22 06 68
Design and Supervision Consultant (DSC)	
Organization:	Temelsu International Engineering Services Inc
DSC International Environmental Safeguard Specialist	Vacant, waiting for approval
e-mail:	temelsu@temelsu.com.tr
Tel:	
DSC National Environmental Specialist:	Mrs. Olga Zinina
e-mail:	zinola@yandex.ru
Tel:	+60 532 644 70 28
Contractors	
Impulse-Osh Ltd.	**Contractor for Lot-1 in Balykchy**
Chief Engineer	B. Latikhanov
e-mail:	impuls_osh@mail.ru
Tel:	+996778566565
Quality Engineer	Bekmamat Japiev
e-mail:	impuls_osh@mail.ru
Tel:	+996558060623
Health, Safety & Environment Staff	Bekmamat Japiev
e-mail:	impuls_osh@mail.ru
Tel:	+996556032121
Profit Express Ltd.	**Contractor for Lot-2 in Balykchy.**
Chief Engineer	Urmat Beishenaliev
e-mail:	Urmat_beishenaliev1983@mail.ru
Tel:	+996703333421

Quality Engineer (or other position)	Aman Akunov
e-mail:	Akunov_84@mail.ru
Tel:	+996709501117
Health, Safety & Environment Staff	Zhyldyz Moldosanova
e-mail:	profit-express@mail.ru
Tel:	+996312973075
Minur LLC	**Contractor for Lot-1 in Karakol**
Site supervisor	Samatbek Kaldybaevich Jakypbekov
e-mail:	minur2007@mail.ru
Tel:	+996702649633
Foreman	Kanatbek Toktogonovich Mamyrbaev
e-mail:	minur2007@mail.ru
Tel:	+996702255118
Health, Safety & Environment Staff	Bekzat Shergazievich Dadybaev
e-mail:	dadybaev.b@mail.ru
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Consortium of Inzhenernaya Zashchita Ltd and Polymer Snab Ltd.	**Contractor for Lot-2 in Karakol**
Project Manager	M. Ikramov
e-mail:	injen_z@mail.ru
Tel:	+996556 566 665
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Consortium of Contractor CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture	**Contractor for Balykchy WWTP**
Project Manager	Yu Zhiping (+996770445355)
Chief Civil Engineer	Beishenbai Zhanboev (+996504100125)
Health and Safety Staff	Yuan Anfeng (+996774415210)
Surveyor	Feng Longlong (+996508425999)
Construction Engineer	Chen Jian (+996507118520)

Environmental Engineer	Rakat Kysanov (+996707659153), kysanov68@mail.ru

14. The following organizations and/or staff responsible for environmental monitoring and/or supervision during the design and construction:

a. **PMO Environmental Specialist**. To carry out overall coordination in implementing the SEMP, monitoring and control to ensure Contractors' compliance with the norms and requirements of the national environmental legislation, the ADB's Safeguards Policy Statement and prepare analytical documents and reports

b. **International and National Environmental Safeguard Specialists of DSC**. To assist the PMO Environmental Specialist in coordinating and overseeing design, construction supervision and monitoring activities under the project based on the contract. To undertakes the technical oversight for the delivery of all safeguard measures, ensures that SEMP mitigation and monitoring measures implemented, and compliance reporting completed.

c. **Contractor's environmental managers and/or Health, Safety and Environmental officers**. Responsible for preparation and implementation of SEMP. HSE officers of Contractors carry out the activities stipulated in SEMPs, monitoring and control to ensure Contractors' compliance with the norms and requirements of national environmental legislation and ADB Safeguards Policy

d. Authorized state bodies and their territorial divisions:

(i) State Agency of Architecture, Construction and Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic (SAACCHS),
(ii) Department of Drinking Water Supply and Sewerage Development under the State Agency of Architecture, Construction and Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic (DDWSSD),
(iii) Project Implementation Units in Karakol and Balykchy (PIUs),
(iv) Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (MNRETS),
(v) Department for Disease Prevention and State Sanitary and Epidemiological Control and the Karakol Inter district Center for Disease Prevention and State Sanitary and Epidemiological Control under the Ministry of Health KR (MoH),
(vi) Ministry of Culture, Information, Sports and Youth Policy (MCISYP),
(vii) Ministry of Emergency Situations (MES), Ministry of Agriculture (MOA) and others.

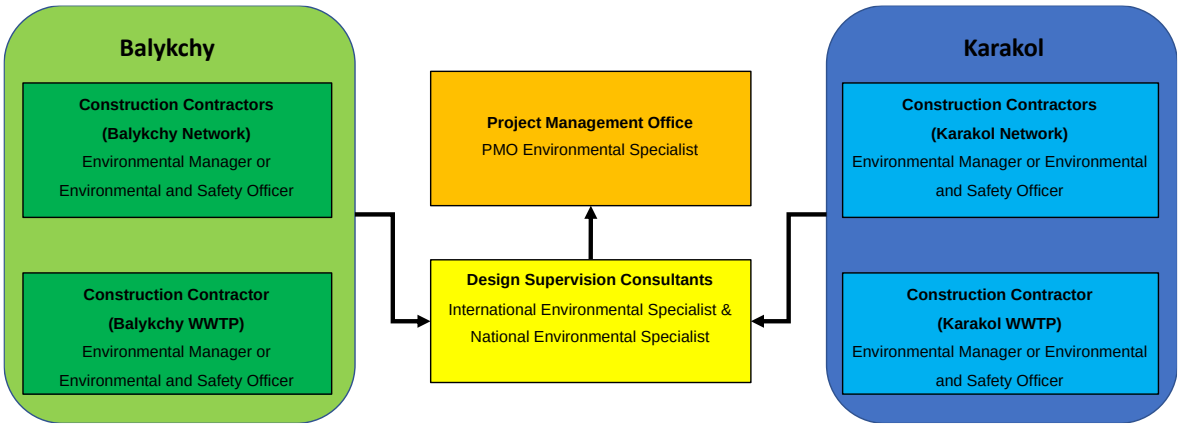


Figure 2-3: Organogram of Environmental Safeguards of IWMP

2.3 Project Activities during Current Reporting Period

Contract Package Number and Works Title	**W1 Lot 1:** Construction of Extension of Balykchy Sewerage Network, "Western"
Work Progress	Contractor has completed almost all excavation, piping and manholes including the additional works (connection of the kindergarten to the main line and fixing of the covers of manholes) except connection of and existing manhole to the new line which will be implemented after checking and testing of the line. Checking the lines has started and the Contractor started removing the defects found out during the checking of the lines. Contractor is going to start asphalt works. Since most of the construction works are on the verge of completion, the number of labours involved in the construction works varies between 10 to 15.
	

Contract Package Number and Works Title	**W1 Lot 2:** Construction for Expansion of Sewer Network in Balykchy, "Eastern"
Work Progress	Contractor has completed almost all the works within the scope of the Contract including the additional works (connection of a school to the main line, installing borders for the walkways, fixing of manhole covers). Now, the Contractor is asphalting the walkways. Since most of the construction works are on the verge of completion, the number of labours involved for the construction works varies between 10 to 15

Contract Package Number and Works Title	**W2 Lot 1:** Construction for Expansion of sewer network in Karakol, Lot 1: "Southern"
Work Progress	Contractor has completed 35,074 m^3 excavation works out of 43,086.90 m^3 total amount (81.401%); has procured 100% and installed 5,518 m of various diameters Polyethylene pipes out of

	total 6,718 m realizing 82.14% progress in piping while installing 411 m^3 of manholes out of 506.92 m^3 in total (progress 81.14%). The number of labours involved in the construction works varies between 15 to 20. Due to winter conditions, the Contractor could work until the first week of December and had a break, stopping the site works until the new season. In April 2023 Contractor has started working.
	

Contract Package Number and Works Title	**W2 Lot 2:** Construction for Expansion of sewer network in Karakol, Lot 2: " North"
Work Progress	Contractor has completed around 30,011 m^3 excavation works out of 32,935.00 m^3 total amount (91.12%) and has procured 100% and installed 5,419 m of various diameters Polyethylene pipes realizing 90.62% progress in piping while installing approximately 344 m^3 of manholes out of 409.22 m^3 in total (progress 84.07%). The number of labours involved in the construction works varies between 15 to 20.

Contract Package Number and Works Title	**W3:** Pump Station and Rising Main 1.7km in Karakol
Work Progress	Design Works: • Conceptual design has been submitted for APU/ ETU approval on 17.03.2023 and approval received on 19.04.2023. • Detail design is completed and submitted to State Expertise for approval in April and approval was received on 05.06.2023. • IEE (Initial Environmental Examination for Karakol SPS-4 and additional works) has been prepared and submitted to PMO on 24.04.2023 and on 22.05.2023 updated according to the comments of PMO and submitted. • OVOS was prepared and submitted to PMO on 02.06.2023. • Preparation of Bidding Documents will start soon

Contract Package Number and Works Title	**W4:** Procurement of Plant Design, Supply and Installation of WWTP in Karakol
Work Progress	• Contractor has started mobilization and final design works for process and basic design and preparation of EMP and Environmental Safeguards Documents. • Process and basic design drawings has been almost approved by the Consultant.

	• EMP, submitted by the Contractor, has been reviewed by DSC. • On April 6th, 2023 Contractor has organized a presentation on Conceptual Design. • Contractor has presented a local designer for adaptation of detailed designs and on 20.06.2023 a meeting was held with the civil works designers of the Contractor and DSC's Structural engineer

Contract Package Number and Works Title	**W5:** Design and Build WWTP Balykchy
Work Progress	Construction works in progress for • Biological Tank • Sedimentation Tank • Inlet Regulating Tank • Administrative Building • Screenings Building • Blower and Boiler room • Mechanical Workshop Number of labours involved in the construction works varies between 25 to 40

Coarse Screen concreting the lower room

Coarse Screen columns of second floor

	
Formwork Installation Sedimentation Tank	Boiler – Blower Room foundation formwork

2.4 Description of any changes to Project Design

15. The design documentation has not been changed during the reporting period.

2.5 Description of any changes to agreed Construction Methods

16. There is no change in the construction methods.

3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1. General Description of Environmental Safeguard Activities

3.1.1 Expansion of Sewer Network in Balykchy and Karakol

17. During the construction of sewage networks in Balykchy and Karakol, Environmental specialists of the contractors performed the following activities daily, which was inspected by the DSC Environmental Specialist during the site visits (Refer Appendix 1 - Reports on Monitoring of the Contractors):

- Check the availability of PPE, first aid kit, bio-toilet before the start of works;
- Fill in check lists for monitoring of environmental impact;
- Inform the households adjacent to the construction site about the work implementation in advance. Conduct an awareness about the dangers of being near open trenches;
- If necessary, inform about road closure for construction work implementation;
- Monitors the need for dust suppression;
- Provides fencing of construction site, warning tape

3.1.2 Construction of Balykchy WWTP

18. . Concrete and waterproofing works were carried out during the reporting period. During the construction of Balykchy WWTP, Environmental specialist of the contractor performs the following activities (Refer Appendix 1 - Reports on Monitoring of the Contractors):

- Check the availability of PPE, first aid kit, sanitizer before the start of works;
- Fill in check lists for monitoring of environmental impact;
- Monitors the need for dust suppression;
- Provides fencing of construction site, warning tape
- Supervises the proper condition of rooms for the accommodation of workers, the availability of good hygienic and living conditions for which the contractor was given an NC and corrective action plan was instructed;
- Supervises the implementation / utilization of safety and environmental measures/means, the SEMP.

3.1.3 Construction of Karakol WWTP

19. The Contract for Construction of Karakol WWTP is signed on 21.12.2022 the effective date being 30.12.2022. Contractor has started mobilization and final design works for process and basic design and preparation of EMP and Environmental Safeguards Documents. Draft EMP, submitted by the Contractor on 22.02.2023, has been reviewed by DSC and returned with comments on 13.03.2023. Report for Sanitary Protection Zone was prepared and submitted by the Contractor on 08.06.2023. It has been reviewed by DSC and returned with comments to be revised on 15.06.2023.

3.1.4 Sludge Management Plan

20. The DSC started updating the earlier prepared Sludge Management Program (SMP) and submitted it to the PMO for review in the first Quarter of 2022. The Sludge Management Plan was submitted for ADB's review on October 26, 2022 after finalization based on comments and remarks given for SMP. After several months, upon new comments and requests, SMP was again revised and some parts being changed by PMO and submitted on 26.05.2023 however upon request of new changes it was again revised and submitted on 15.06.2023.

3.1.5 Construction of a receiving tank (50m^3) for Pump Station (PS-4) at Pristan, Discharge Pipeline (0,2 km) and Rehabilitation of the Main Collector's Manholes to WWTP Karakol city. (Additional Works)

21. Section "Environmental protection" was developed as part of the design and estimate documentation and approved by Issyk-Kul – Naryn Regional Department of MNRETS on 13.06.2023. The OVOS report is also updated to include Phase-2 of the construction of SPS in Pristan-Przhevalsk and submitted on 02.06.2023 for review and approval. Public Participation Meetings for Phase-1 of the construction was conducted in the previous reporting period.

3.1.6 Update of Initial Environmental Examination Report for Balykchy

22. Finally, after several months and several comments and updating, final updated IEE was submitted on 25.03.2023 and approved and disclosed on the ADB website on 27.04.2023.

3.1.7 Update of the Initial Environmental Evaluation for Pristan – Przhevalsk.

23. The IEE for Pristan – Przhevalsk has been updated for the additional works, namely the reconstruction of the discharge pipeline (0.2 km) from the WWTP and the capital repair of 28 manholes on the collector that delivers wastewater to the WWTP. The updated IEE is prepared by DSC and submitted on 10.05.2023 for which comments have been received which were addressed and re-submitted on 22.05.2023.

3.2. Site Audits

24. The construction sites are audited by DSC National Environmental Specialist to check the compliance with measures specified in the SEMP (refer Appendix IV for site photos). Since no works were carried on up till April 2023 due to winter conditions, no site audits were held during this period. The construction activities have started (on site) for networks of Balykchy in March 2023 and in April 2023 for Karakol. DSC's National Environmental Specialist O.V.Zinina visited Balykchy and Karakol sites on 27th April 2023, 18th and 19th May 2023, 15th and 16th June 2023 and 27th to 29th June 2023 to monitor the works of the Contractors. Details of the WWTP and network construction site visits and findings of non-compliances are presented in **Table 3-1**.

Table 3-1: Audit of sites (Non-Compliances Tracking)

(i) Scope of Audit : EMP Compliance Monitoring in the IWMP construction sites

(ii) Auditor : Ms.O.V.Zinina (DSC's National Environmental Specialist)

(iii) Auditees : Mr. Bekmamat Japiev (HSE for Package W1 lot 1)
Mr. Zhyldyz Moldosanova (HSE for Package W1 lot 2)
Mr. Bekzat Shergazievich Dadybaev ((HSE for Package W2 lot 1)
Mr. Bakyt Urmanbetov ((HSE for Package W2 lot 2)
Mr. Rakat Kysanov ((HSE for Package W5)

Sl.no	Site/ Location	Date of Visit	Category	Audit findings	Corrective Action/s	NCN No	NC Level	Delivery Date	Priority	Responsible	Status	Date Closed
1	Lot1 NW Karakol (PE Minur LLC)	19.05.23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	No. 1	N/A	31.05.23	Low	Contractor's Project Manager	Open	-.
2	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	19.05.23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	No. 2	N/A	31.05.23	Low	Contractor's Project Manager	Closed	08.06.23
3	Lot1 NW Balykchy (IMPULSE OSH)	19.05.23	Environment	There is no dumpster	The dumpster must be permanently located on the		N/A	22.05.23	Low	Site Manager	Closed	22.05.23

Sl.no	Site/ Location	Date of Visit	Category	Audit findings	Corrective Action/s	NCN No	NC Level	Delivery Date	Priority	Responsible	Status	Date Closed
					construction site							
4	WWTP Balykchy (CRBC)	15.06.23	Safety	Fire extinguishing panel has to be equipped fully.	Procure new equipment.	No. 3	N/A	26.06.23	Low	Site Manager	Closed	22.06.23
5	Lot1 NW Karakol (PE Minur LLC)	16.06.23	Social	Information board does not have a telephone number of LFP	Add a telephone number	No. 4	N/A	23.06.23	Low	Contractor's Project Manager	Open	-
6	Lot1 NW Karakol (PE Minur LLC)	27.06.23	Environment	Contract with a laboratory has to be signed	Conclude a contract		N/A	04.07.23	Low	Site Manager	Open	-
7	WWTP Balykchy (CRBC)	29.06.23	Safety	The fire extinguishers are not full.	Replace the equipment.	No. 5	N/A	04.07.23	Low	Site Manager	Closed	30.06.23

3.2.1. Issues Tracking (Based on Non-Conformance Notices)

- During the reporting period, construction work was carried out for the sewage networks in Balykchy and Karakol.
- The main works on the WWTP modernization started in April when the weather is favorable.
- Non-Conformity Tracking Report related to site audits is enclosed in Appendix II.
- Additionally, the summary of monitoring results is given in the following tables:

Table 3-2: Summary Table

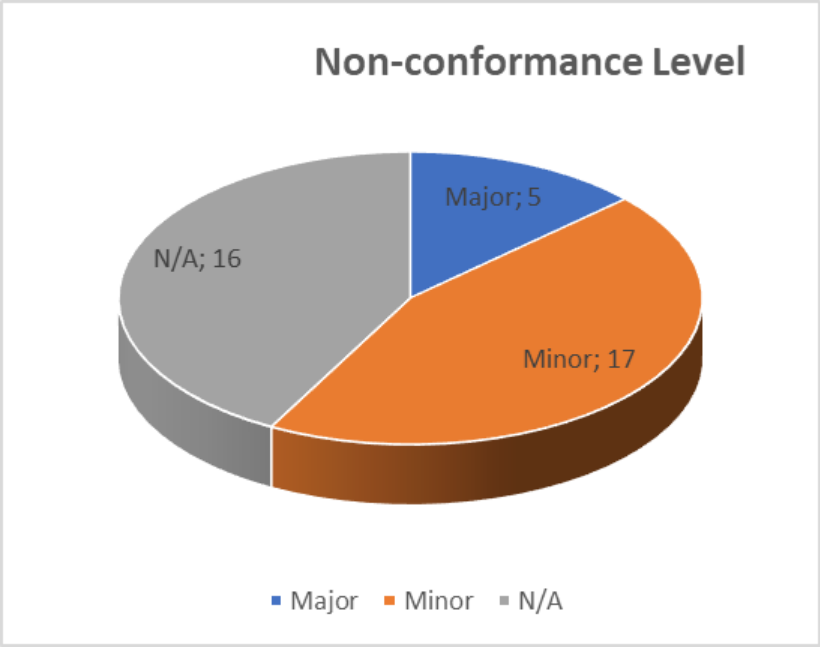
Total Number of Issues for Project	41
Number of Open Issues	2
Number of Closed Issues	39
Percentage Closed (%)	95
Issues Opened This Reporting Period	3
Issues Closed This Reporting Period	1

Issues Closed on Time	22
Percentage by Closed Issues (%)	56
Percentage by Open Issues (%)	44

Average Day Open for All Issues	108
Average Day Open for Open Issues	38
Average Days to close	12

Table 3-3: Issues by Category

Environment	17
Social	0
Health	8
Safety	5
Other	11



N/A: Not formal Non-conformance

Figure 3-1: Chart of Non-compliance Notifications.

25. In the course of site visit by the ADB Safeguards Review Mission on 18.05.2022, the following comments and suggestions were given during the mission

Sl.no	Remarks from ADB Mission	Status as of 01.07.23	Remarks
1.	Safety should be strengthened for operations at the height above 2 meters.	Completed	
2.	The number of days off of workers should be controlled. At least one day off should be granted every 6 days.	Completed	
3.	Uncovered manholes within WWTP area should be covered.	Completed	
4.	The sites should be monitored in accordance with the Checklist for inspections of construction sites (developed by the PMO).	Completed	
5.	Instrumental air analysis should be conducted on the days of the most intense construction (days to be agreed with the laboratory).	Not completed.	Re-analysis has not yet performed.
6.	Certificate of conformity should be obtained from Kyrgyz Standard for noise level meter.	Not completed.	Noise level meter is certified in PRC. According to a verbal communication from the representatives of Kyrgyz standard, it is enough and the noise level meter can be used. Also, no difference was found between the instrumental

Sl.no	Remarks from ADB Mission	Status as of 01.07.23	Remarks
			measurement by the laboratory and by the noise level meter.
7.	Noise should be measured with noise level meter in accordance with GOST ISO 9612- 2016. The consultant of DSC should conduct a training on this GOST for contractor.	Completed.	The training was conducted on June 15.
8.	Analyses of influents and effluents of WWTP and drinking water should be requested from Vodokanal and included in the semi-annual report.		Requested.
9.	Post-construction audit of sewerage networks of Balykchy. A number of rules to be adhered:		
	Audit according to the established form (the form will be provided by the PMO)	Not Completed	Restoration of roads are in progress for Contractor Package W2 lot 1 and 2, which is anticipated to be completed by end of November 2023. Accordingly the PCEAR shall be submitted mid December 2023.
	Survival of seedlings planted as compensation for cut trees should be checked.	Not completed.	Post-construction monitoring has not been implemented yet.

3.2.2. Trends

26. Comparison of previous and current period Non-compliance issues is given in Table 3-4.

Table 3-4: Comparison of trends

Semi-Annual Report #	Total No of Issues	Issues Closed (%)	Issues closed late (%)
5	11	9	1
6	27	26	15
7	7	71.4	28.6

27. As per Table 3-4, the main incompliances were caused by insufficient arrangements for of activities specified in the SEMP. To reduce the number of incompliances, additional training on the measures provided in the SEMP is required not only for the engineering staff, but also for the workers.

28. **Unanticipated Environmental Impacts or Risks.** In the current reporting period (January to June 2023), there are no unanticipated Environmental impacts or risks have been encountered or identified.

4 ENVIRONMENTAL MONITORING RESULTS

4.1. Overview of Monitoring Conducted during Current Period

4.1.1. Ambient Air Quality

29. For both the sewerage network construction works at Balykchy and Karakol Contract No W1 Lot 1, W1 Lot 2, W2 Lot 1, W2 Lot 2), the major construction works (pipeline laying) are almost completed, construction activities in Karakol have resumed after the winter season, i.e. from April 2023 onwards. Environmental monitoring has not been conducted for any of the sewerage network packages. Construction works are in progress for the WWTP located at Balykchy, accordingly the contractor (China Road and Bridge Corporation) have conducted the environmental monitoring and the details of the same is discussed in the following sections.

30. The contractor has engaged the Department of Environmental Monitoring under MNRETS to collect the samples and analyze for air quality in Balykchy WWTP construction site for Sulfur dioxide, nitrogen, carbon monoxide, hydrocarbons and suspended solids. The analysis was performed on 27th March, 2023. From the analysis it is evident that the recorded values for all the air quality parameters are well within the stipulated standards (refer Appendix III for AAQ data).

Table 4-1: Air Quality Monitoring Results

Sl.no	Unit	Air Quality Parameters				
		SO_2	NO_x	CO	HC	PM_{10}
West side Balykchy WWTP	mg/m^3	0.16±0.019	0.076±0.014	0.8±0.16	2.7±0.54	0.156±0.039
East side Balykchy WWTP	mg/m^3	0.144±0.017	0.083±0.015	0.63±0.13	3.0±0.6	0.156±0.039
south side Balykchy WWTP	mg/m^3	0.153±0.018	0.08±0.014	1.1±0.22	3.1±0.62	0.156±0.039
Max. one-time MPC	mg/m^3	0.5	0.085	5.0	5.0	0.5

4.1.2. Noise and vibration

31. Similar to the ambient air quality monitoring, the noise levels and vibration have not been conducted for the sewerage network construction works at Balykchy and Karakol (Contract No W1 Lot 1, W1 Lot 2, W2 Lot 1, W2 Lot 2). Contractor for Balychy WWTP have engaged ProfiLab LLC to measure noise and vibration levels within WWTP area and nearby residential houses (refer Appendix III for Vibration data). The following table shows the outcome of the results.

Table 4-2: Recorded Noise levels at Balychy WWTP site

Sl.no	Place of measurement	Nature of noise						Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz									Sound 57 (dBA)
		Spectrum		Time													
		Wide band	Tone	Permanent	Vibrating	Intermittent	Impulse	31.5	63	125	125	500	1000	2000	4000	8000	
	Area of WWTP when the crane is in operation																
	Latitude: 42° 28’2”; Longitude: 75°57’23”.																
1	Leq							63	75	69	67	64	65	61	60	56	**72 (Actual)**
	Slow max																**78**
	Area of WWTP when the crane is not in operation																
	Latitude: 42° 28’2”; Longitude: 75°57’23”.																
2	Leq							47	48	48	43	49	43	40	38	35	**57 (Actual)**
	Slow max																**63**
	Area of WWTP when the loader is in operation																
	Latitude: 42° 28’2”; Longitude: 75°57’23”.																
3	Leq							83	75	68	70	69	68	64	60	54	**69 (Actual)**
	Slow max																**81**
	Area of WWTP when the loader is in operation																
	Latitude: 42° 28’2”; Longitude: 75°57’23”.																
4	Leq							61	68	74	70	69	65	62	62	56	**68 (Actual)**
	Slow max																**73**
	Near the general reservoir, biological sedimentation tank																

	Latitude: 42° 27’20”; Longitude: 76°8’28”.																
5	Leq							47	55	51	55	47	43	41	37	34	**55 (Actual)**
	Slow max																**62**
	Background noise level from traffic, south side of the road 1-measurement																
	Latitude: 42° 27’23”; Longitude: 76°6’49”.																
6	Leq							46	54	42	48	47	37	40	35	37	**68 (Actual)**
	Slow max																**71**
	Near Bereke Pump station																
	Latitude: 42° 27’20”; Longitude: 76°9’16”.																
7	Leq							45	44	37	32	32	38	38	35	32	**53 (Actual)**
	Slow max																**63**
	Nearest house Near house w/n																
	Latitude: 42° 27’11”; Longitude: 76°8’29”.																
8	Leq							48	48	44	42	40	39	37	38	35	**50 (Actual)**
								90	**75**	**66**	**59**	**54**	**50**	**47**	**45**	**44**	**55 MPL**
	Conference Hall																
9	Leq							58	45	40	37	33	31	30	33	30	**51 (Actual)**
								79	**63**	**52**	**45**	**39**	**35**	**32**	**30**	**25**	**55 MPL**
	Site office																
10	Leq							48	40	45	46	48	44	38	39	37	**49 (Actual)**
								86	**71**	**61**	**54**	**49**	**45**	**42**	**40**	**38**	**50 MPL**
	Background noise level from traffic, south side of the road 2-measurement																
	Latitude: 42° 27’23”; Longitude: 7*6°6*’49”.																
11	Leq							47	52	40	42	39	40	35	37	34	**58 (Actual)**

	Slow max																**64**
	Recreation zone within WWTP area																
12	Leq							50	48	45	50	48	42	35	33	33	**52 (Actual)**
								83	**67**	**57**	**49**	**44**	**40**	**37**	**35**	**33**	**65 MPL**
	Background noise level from traffic, south side of the road 3-measurement																
	Latitude: 42° 27'23"; Longitude: 76°6'49*".*																
13	Leq							53	48	45	42	39	38	36	38	39	**53 (Actual)**
	Slow max																**66**

32. The outcome of the analysis shows the noise levels are recorded between 53 dB(A) to 72 dB(A) during the construction at the Balykchy WWTP. The noise levels were between 49 dB(A) to 52 dB(A) near the workplace in the site office, conference hall, on the adjacent territory of the residential building and on the recreation ground. The recorded noise levels meet the requirements of Annex 14 Sanitary Rules and Regulations "Noise at workplaces, in premises, residential buildings, public buildings and on the territory of residential blocks", approved by Resolution No. 201 of KR of 11.04.2016. The noise levels due to the movement of traffic were between 53 dB(A) to 68 dB(A).

4.1.3. Values of vibration level

33. The vibration level at the adjacent area of the Balykchy WWTP was recorded between 73 dB(A) to 91 dB(A). The background vibration level from traffic was 70bB(A) to 90dB(A). The recorded vibration level in the adjacent territory of the residential building, in the conference hall, workshop and on the recreation, ground meets the Sanitary Rules and Regulations.

Table 4-3: Recorded Vibration levels at Balychy WWTP site

Sl.no	Measurement point	VIBRATION Type Total				Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz						Adjusted and equivalent adjusted values and their levels
		Transport	Transport and	Process	Local	**2**	**4**	**8**	**16**	**31.5**	**63**	Frequency weighting **Wm (dB)**

	Area of WWTP when the crane is in operation												
	Latitude: 42° 28’2”; Longitude: 75°57’23”.												
1	Leq		**+**			80	75	70	65	50	50	**80**	Vibration level
	Slow max											**88**	Max level
	Area of WWTP when the crane is not in operation												
	Latitude: 42° 28’2”; Longitude: 75°57’23”.												
2	Leq		**+**			79	73	68	65	60	52	**73**	Vibration level
	Slow max											**80**	Max level
	Area of WWTP when the loader is in operation												
	Latitude: 42° 28’2”; Longitude: 75°57’23”.												
3	Leq		**+**			82	76	72	66	62	60	**91**	Vibration level
	Slow max											**98**	Max level
	Area of WWTP when the loader is in operation												
	Latitude: 42° 28’2”; Longitude: 75°57’23”.												
4	Leq		**+**			78	70	64	59	57	56	**80**	Vibration level
	Slow max											**91**	Max level
	Near the general reservoir, biological sedimentation tank												
	Latitude: 42° 27’20”; Longitude: 76^{0}8’28”.												
5	Leq					84	73	67	61	57	56	**88**	Vibration level
	Slow max											**95**	Max level
	Background vibration level from traffic, south side of the road 1-measurement												
	Latitude: 42° 27’23”; Longitude: 76°6’49”.												
6	Leq	+				96	93	90	87	56	56	**90**	Vibration level
	Slow max											**96**	Max level
	Near Bereke Pump station												
	Latitude: 42° 27’20”; Longitude: 76°9’16”.												
7	Leq					86	66	68	65	60	57	**86**	Vibration level
	Slow max											**93**	Max level
	Nearest house Near house w/n												

	Latitude: 42° 27’11”; Longitude: 76°8’29”.												
8	**Leq**					**74**	**59**	**53**	**56**	**57**	**53**	86	Vibration level
						103	100	100	106	112	118	100	MPL
	Conference Hall												
9	**Leq**					**76**	**74**	**72**	**70**	**68**	**62**	78	Vibration level
						103	100	100	106	112	118	100	MPL
	Site office												
10	**Leq**					**65**	**76**	**68**	**61**	**59**	**55**	86	Vibration level
						103	100	100	106	112	118	100	MPL
	Background vibration level from traffic, south side of the road 2-measurement												
	Latitude: 42° 27’23”; Longitude: 76°6’49”.												
11	**Leq**	+				**91**	**88**	**82**	**80**	**71**	**65**	70	Vibration level
	Slow max											81	Max level
	Zone within WWTP area												
12	**Leq**					**75**	**69**	**66**	**54**	**51**	**51**	70	Vibration level
						103	100	100	106	112	118	100	MPL
	Background vibration level from traffic, south side of the road 3-measurement												
	Latitude: 42° 27’23”; Longitude: 76°6’49”.												
13	**Leq**	+				**90**	**85**	**76**	**68**	**64**	**60**	73	Vibration level
	Slow max											80	Max level

4.2. Trends

34. Though the SSEMP requested for conducting air instrumental monitoring, during the reporting period the contractors have not conducted the ambient air quality and ambient noise monitoring, it was informed that they do not have a contract with the authorized laboratory for conducting environmental monitoring. To confirm that there is no negative impact, additional consultation and/or required support is needed to contract a laboratory for instrumental measurements of air quality, noise and, if necessary, soil.

4.3. Summary of Monitoring Outcomes

- At construction sites, the Environmental Engineers conduct daily visual monitoring and keep records of excess soil, as well as generated solid domestic wastes.
- Bio-toilets, trash bins and bridges for trench crossing are available on the sites or at least provided after warning and issuing NCNs. There is a first aid kit and a sanitizer.
- Safety briefings are conducted regularly.
- During the observation period, no significant signs of negative environmental impact were identified.

4.4. Material Resources Utilization

35. The main resources that were used in the construction works are water and electricity. Water is used for domestic, hygienic (in the construction camp) and technical (dust suppression) purposes. Water is supplied under a contract with Balykchy and Karakol Vodokanals.

Table 4-4: Material Resources Utilization

Sl.no	Contract package and name of Contractor	Electricity for the reporting period, kW/h	Water for the reporting period (m^3)
1.	Contract No. W1 Lot 1 (Impulse-Osh Ltd)	100	-
2.	Contract No. W1 Lot 2 (Profit Express Ltd)	70	-
3.	Contract No. W2 Lot 1 (Minur Ltd)	800	20
4.	Contract No. W2 Lot 1 (Consortium of Inzhenernaya Zashchita Ltd. and Polymer Snab Asia Ltd).	900	14.4
5.	Contract No. W4 (Consortium of Contractor CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture)	1350	2334.4
	Total	**3220**	**2368.8**

4.5. Waste Management

36. Waste management is carried out in accordance with the SEMP. The contractors signed the contract with municipal services for the removal of solid waste generated during construction. The following table shows the amount of waste produced by contractors during the reporting period.

Table 4-5: Waste generated during construction works

Sl.no	Name of Contractor	Excess soil	Solid domestic wastes	Residuals of PE pipes
1.	Contract No. W1 Lot 1 (Impulse-Osh Ltd)	-	0.042	-
2.	Contract No. W1 Lot 2 (Profit Express Ltd)	-	0.03	-
3.	Contract No. W2 Lot 1 (Minur Ltd)	742.00	1.1	-
4.	Contract No. W2 Lot 1 (Consortium of Inzhenernaya Zashchita Ltd. and Polymer Snab Asia Ltd).	819	1.4	-
5.	Contract No. W4 (Consortium of Contractor CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture)	3.2 (contaminate soil)	14.7	-
	Total	**1564.2**	**17.272**	**-**

37. In Balykchy, both the sewerage network Contractors (Contract No. W1 Lot 1and Lot 2) have signed an agreement for waste removal with the ME Tazalyk, the disposal area is within the municipal landfill, which is located at a distance of 1.5km from Balykchy city. Excess soil/ debris are temporarily stored in the area allocated by ME Tazalyk. Similarly, the Balykchy WWTP contractor (Contract No. W4) have also signed an agreement with Tazalyk for removal of construction waste, the excess soil is stored in a designated area allocated by the Tazalyk.

38. In Karakol, both the sewerage network Contractors (Contract No. W2 Lot 1 and Lot 2) have signed an agreement for the collection and disposal of construction waste with the ME Tazalyk, the disposal location is within the municipal landfill which is located at a distance of 5km from Karakol city. The excess soil is stored in a designated area as identified by the Tazalyk.

4.6. Occupational and Community Health and Safety Monitoring

4.6.1. Community Health and Safety

39. During the reporting period (January to June 2023), there were no accidents that were reported that could lead to public health and safety problems. All the construction works were

carried out during the working hours (between 9am to 6pm). Before the construction work begins, the local community is notified in advance about the proposed construction activities and the danger of being near to the open trenches. During the period, no traffic accidents were recorded.

4.6.2. Workers safety and health

40. There were no accidents and/or serious incidents with the employees during the reporting period. The Contractors have appointed HSE staffs. Construction workers are regularly instructed in safety and environmental protection. The Contractor's Safety Plan has been updated to include activities related to COVID 19. Construction workers are provided with the necessary PPEs, first aid kits and sanitizers.

41. To protect the health and safety of workers, as well as surrounding communities, the contractors of each packages conduct a workplace review and risk assessment for exposure to COVID 19. The specialists conducted training on how to prevent the spread of COVID 19. The HSE staffs of contractors conduct regular briefings on safety and the use PPE during construction work.

4.7. Capacity Building/ Training

42. EHS Training has not been conducted by the DSC during the reporting period. Contractor's HSE staffs provide safety briefings to the workers. Quarterly briefings are provided for all workers and initial briefing for newly hired employees.

43. In Contract No. W4 (Balykchy WWTP), the DSC's Construction Supervision Engineer, Foreman together with the Environmental Specialist of the contractor (China Road and Bridge Corporation) conducted a training for the local workers on March 3, 2023. The training was attended by 25 participants. The key topics covered under the training are (i) compliance with the requirements stipulated in the SEMP, (ii) HSE compliance, (iii) fire safety at the construction site and (iv) provision of PPE to the workers.

44. On June 15, 2023, The DSC's Environmental Specialist (Ms. O.V. Zinina) conducted training on the use of noise meter according to GOST ISO 9612- 2016 for the Environmental Specialist of the Contractor for Balykchy WWTP, printed hand-outs were handed over.

45. The contractor for Contract No. W2 Lot 1 conducted training on Environmental, Health and Safety measures on April 04, 2023. The training was conducted by the company's foreman and the Environmental Specialist. 20 participants have attended the training, the key topics covered during the training are (i) Waste management, (ii) sanitary and environmental conditions of the construction site, (iii) construction safety, (iv) fire safety, (v) use of PPE's.

5. FUNCTIONING OF SSEMP

5.1. SSEMP Review

46. All contractors have a full-time environment, health and safety (EHS) officer for implementation of EMP/SEMP, community liaising, reporting and grievance redressal on day-to-day basis. No complaints have been received from residents during the reporting period. A verbal interview of residents showed a positive attitude of residents to the project implementation.

47. The main areas which the contractors have difficulty are the lack of a bio-toilet at the construction site, inadequate fencing of open trenches and manholes to ensure the safety of people. During the reporting period, except Contract No. W4 (WWTP site at Balykchy), no other contractors have conducted an instrumental air measurement on the construction sites. SEMP developed by the contractors for networks is used in all stages of civil works.

6. GOOD PRACTICES AND OPPORTUNITY FOR IMPROVEMENT

6.1. Good Practice

48. In the Contract no 4 (Balykchy WWTP), the contractor has conducted construction safety training program for the construction labours, which is a very good initiative with regard to the HSE requirements.

49. The practice of collecting and transferring plastic bottles for further recycling is adopted based on the example of Minur Ltd. Bottles are collected jointly with Izumrud Tazalyk Service Company. This has been recorded in the earlier SEMR as well.

Container for plastic bottles.

6.2. Opportunities for Improvement

50. Joint work with contractors has to be strengthened to organize instrumental monitoring in accordance with SEMPs. Training on SEMP implementation, health and safety, etc. to be conducted for contractors.

7. SUMMARY AND RECOMMENDATIONS

7.1. Regulatory Requirements

- Environmental monitoring as indicated in the IEE has to be conducted for all ongoing construction works. The monitoring should be conducted by the authorized laboratory
- Labour requirement should be in line with the ILO, necessary documents/ permission for engaging the international migrant workers in Contract no 4 (Balykchy WWTP) should be shared with the PIU and PMO
- Permission/ clearances/ NoC obtained by the contractors from the line departments/ stakeholder departments has to be submitted to the PIU and PMO

7.2. Environmental Aspects

- At construction sites, the contractor's Environmental Specialist should conduct daily visual monitoring and keep the records of excess earth/soil, as well as generated municipal solid waste from the construction camps.
- Bio-toilets, trash bins and temporary pedestrian trench bridge are provided in the construction site after issuing NCs. First aid kit is available however, it should have appropriate medicines as per the ANSI (The American National Standard Institute) First Aid Box Class B requirements.
- It was observed, soil contamination due to the oil leakage from the construction machineries parked in the Balykchy WWTP. It is suggested to service/ repair the construction machineries periodically to prevent any leakage of oil /fuel.
- Dust suppression measures adopted in the Balykchy WWTP was observed to be inadequate, due to the hot weather.
- Tool box talk and other construction safety briefings are conducted regularly by the HSE staff
- During the reporting period, no significant signs of negative environmental impact were identified, that was confirmed based on the recorded monitoring data at the Balykchy WWTP. The contractors for sewerage networks in Balychy and Karakol did not carry out the environmental monitoring during the reporting period.
- It is suggested to estimate the number of trees that are proposed to be removed for the sewerage network construction works and accordingly a suitable compensation/ afforestation measures have to be prepared and adopted
- Silt Traps should be provided to prevent the sediment-laden surface runoff from the construction site entering the agriculture field
- Impervious layer or Concrete platform or drip trays should be provided for storing the diesel and lubricants, appropriate slope has to be given for collection of spill over
- Register should be maintained in the site as well as project office, the received complaints from the locals should be recorded (the GRM procedure as indicated in the IEE should be followed)

7.3. Health and Safety Aspects

- Site specific Health and safety Plan and Emergency Response Plan has to be prepared by the contractors
- For the Excavation and Foundation works the following measures should be adopted
    - Edge protection should be provided around the pit to prevent person falling around it.
- For work at height (Balykchy WWTP's)
    - It is recommended to secure the hand tools while using at height to prevent inadvertent accidental fall of hand tool from height
    - It is recommended to provide training in emergency rescue procedures and use of equipment (for emergency responders) to all workers
    - It is recommended to include the following details:
        - Details of trained emergency responders
        - Availability and health check-up of emergency rescue equipment (Ascender / Descender equipment with rope)
    - Standard edge protection should be provided at all open lead edges of the staircase under construction. It is recommended to provide pipe and coupler arrangement for staircase hand railing arrangement
    - Scaffolding should be inspected by a responsible person, and scaffolding inspection tagging system should be implemented to highlight the status of each scaffolding whether it is "FIT" or "UNFIT" for use
- Electrical safety
    - Only licensed electrician should be engaged in electrical works at project site.
    - Ensure all electrical installations including portable electric tools are inspected and tagged by the responsible person on a monthly basis. Also, ensure all sockets are routed through Residual Current Circuit Breaker (RCCB). A documented record of inspection and testing should be maintained
    - Ensure all outdoor panel are waterproof
    - The unused opening in the outdoor panel should be covered with dummies to prevent any reptile entry
    - It is recommended to provide the adequate size of earth conductor for proper grounding of the equipment.
    - Earthing to be provided for temporary lighting arrangement installed at the project sites
    - No cable/ wire joints should be available close to a body of portable machines.
    - The power cable cord of portable machines should be free from cable joints, at least 3 m distance from a body of the machine
- Construction vehicle and transportation vehicles safety
    - Ensure every vehicle should be equipped with reversing alarm and functioning correctly.

- All transport or earth moving equipment and vehicles should be inspected at least once a week by a responsible person and in case of any defect is noticed, it is immediately taken out of service.

APPENDICE

Appendix I - Reports on Monitoring of the Contractors

Project Number	50176-002
Project Name	Issyk – Kul Wastewater Management
Packet No. and/or Lot No.	Contract No. W4
Components/Scope of Work	Construction of Balykchy Waste Water Treatment Plant (WWTP)
Progress (percentage)	Designing and construction of Balykchy WWTP
Location/Site inspected	Balykchy
Date of inspection	15.06.23 and 29.06.23
Contractor	China Northeast Municipal Engineering Design and Research Institute Co., China Road and Bridge Corporation
Supervision Company	Temelsu International Engineering Inc.
SSEMP Clearance Date	

	Monitoring/Inspection Questions	**Yes/ No/ Not applicable (n/a)**	**Yes/ No/ Not applicable (n/a)**	**Observation/ Reason/ Rationale**	**Required Action**
1.	Documents	15.06.23	29.06.23		
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	No	No		
b.	Any change in scope of work, design, location, and/or method of construction?	No	No		
c.	All permits/clearances on environment, health and safety (EHS) obtained?	Yes	Yes		
d.	Is the SSEMP informed to workers including subcontractors?	Yes	Yes		
2.	HSEof Contractor on Employer's site				
a.	Is an Environment Supervisor available?	Yes	Yes		
b.	Is the Safety Officer on-site?	Yes	Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
c.	Is a copy of the SSEMP available on-site and in worksites?	Yes	Yes		
d.	Has Contractor established an operational system for HSE?	Yes	Yes		
e.	Has the Contractor established data management system for HSE?	Yes	Yes		
f.	Laborers hired from licensed manpower suppliers only?	Yes	Yes		
g.	All workers (including manpower supply laborers) are insured?	Yes	Yes		
h.	Number of workers provided with orientation on safeguards and HSE?	15	25		
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?	Yes	Yes		
j.	Company EHS policy available and displayed?	Yes	Yes		
k.	Site risk assessment carried out before start of work?	Yes	Yes		
l.	Permit to work system followed for critical works?	Yes	Yes		
m.	Incident reporting and investigation system in place?	Yes	Yes		
n.	Health and Safety committee established and OHS performance reviewed periodically?	N/A	N/A		
3.	Facilities				
a.	Are there separate sanitary facilities/toilets for male and female workers?	Yes	Yes		
b.	Are the toilets in good conditions, clean, and provided with water all the time?	Yes	Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
c.	Is drinking water supply available for workers?	Yes	Yes		
d.	Is there a rest area for workers?	Yes	Yes		
e.	Are storage areas for chemicals available and with protection? İn safe locations?	N/A	N/A		
f.	Protection from extreme weather provided?	Yes	Yes		
g.	Are the workers camp kept in clean and safe conditions?	Yes	Yes		
3.	Health and Safety				
a.	Toolbox talk given to all workers **on daily basis? (*check logbook*)**	Yes	Yes		
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?	No	No		
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?	Yes	Yes		
d.	Is there a logbook for Health and Safety?	No	No		
e.	Are there first aiders and first aid kits on site? (1 kit and 1 first aider for every 25 workers)	Yes	Yes		
f.	Are emergency contact details available on-site?	Yes	Yes		
g.	Are there PPEs available? What are they?	Yes	Yes		
h.	Are the PPEs in good condition?	Yes	Yes		
i.	Are the PPEs being used by workers **at all times**?	Yes	Yes		
j.	Are there firefighting equipment on site?	No	No	Expired shelf life of some fire extinguishers	
k.	Are excavation trenches provided with shores or protection from landslide?	No	No		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*	No	No		
m.	Is break time for workers provided?	Yes	Yes		
n.	Adequate level of light is maintained for working during dark hours?	No	No	Work is not carried out in the hours of darkness	
o.	Buried and overhead utilities identified and controls taken; as appropriate?	no	No		
p.	Electrical tools being used are double insulated and damage free?	Yes	Yes		
q.	Equipment and tools used safe and unbreakable?	Yes	Yes		
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?	N/A	Yes		
s.	Confined space entry is done through Permit to work system?	N/A	N/A		
t.	Are workers (contractors and ubcontractors) covered by accident insurance?	Yes	Yes		
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?	2 signs at 50 meters	2 signs at 50 meters		
v.	Are signages and warning signs translated to local language?	Yes	Yes		
w.	Are signages and warning signs visible even at night time?	Yes	Yes		
x.	Are there any accidents since the last inspection? How many and what are these accidents?	No	No		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?	N/A	N/A		
4.	Community safety				
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?	Yes	Yes		
b.	Are safety signages posted around the sites where there are houses, business, or communities?	Yes	Yes		
c.	Are temporary and safe walkways for pedestrians available near work sites?	N/A	N/A		
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?	N/A	N/A		
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?	N/A	N/A		
f.	Is there a record of treated water quality testing/measurement?	N/A	N/A		
g.	Is there a logbook for community feedback and/or complaints?	Yes	Yes		
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?	N/A	N/A		
5.	Solid Waste Management				
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?	Yes	Yes		
b.	Is solid waste segregation and management in each work site?	No	No		
c.	Are hazardous wastes stored separately from non-hazardous wastes?	N/A	N/A		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
d.	Is there a daily collection of solid wastes from work sites?	Yes	Yes		
e.	Is there a temporary storage area for wastes at worker's camp?	Yes	Yes		
f.	Are reuseable and recyclable materials segregated?	No	No		
g.	Is there a logbook for waste collection and disposal?	Yes	Yes		
6.	Water Pollution Control and Wastewater Management				
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?	N/A	N/A		
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?	N/A	N/A		
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?	N/A	N/A		
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?	Yes	Yes		
e.	Is any wastewater discharged to storm drains?	No	N/A		
f.	Is any wastewater being treated prior to discharge?	N/A	No		
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?	N/A	N/A		
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?	N/A	N/A		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
i.	Is there a logbook for water and wastewater quality monitoring?	N/A	N/A		
7.	Dust Control				
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?	No	No	The air tests were done in May	
b.	Is the construction site watered on daily basis to minimize generation of dust?	Yes	Yes		
c.	Are roads within and around the construction sites sprayed with water on regular intervals?	No	No		
d.	Is there a speed control for vehicles at construction sites?	Yes	Yes		
e.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?	Yes	Yes		
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?	Yes	Yes		
g.	Are power/diesel generators provided with air pollution control devices?	No	No		
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?	Yes	Yes		
i.	Is there a logbook for air quality monitoring?	Yes	Yes		
8.	Noise Control				
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes		
b.	Are there any works near sensitive receptors during night time?	No	No		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
c.	Do generators operate with doors closed or provided with sound barrier around them?	N/A	N/A		
d.	Is idle equipment turned off or throttled?	No	No		
e.	Are there noise mitigation measures adopted at construction sites?	Yes	Yes		
f.	Are neighboring residents notified in advance of any anticipated noisy construction activities?	N/A	N/A		
g.	Is there a logbook for noise level monitoring?	Yes	Yes		
9.	Soil Contamination Control				
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?	Yes	Yes		
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?	Yes	Yes		
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labeled?	Yes	Yes		
d.	Are storage areas inspected on daily basis?	Yes	Yes		
e.	Are there sufficient equipment and materials to manage spills?	Yes	Yes		
f.	There are no source of fire or spark near the storage areas (within 20 meters)?	No	No		
g.	Are material safety data sheet (MSDS) available on site?	Yes	Yes		
h.	Are excess chemicals or materials disposed according the MSDS?	N/A	N/A		
10.	Traffic Control				

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
a.	Are reflective traffic signages available around the construction sites and nearby roads?	N/A	N/A		
b.	Are re-routing signages sufficient to guide motorists?	N/A	N/A		
c.	Are the excavation sites along roads provided with hard barricades with reflectors?	N/A	N/A		
d.	Are the excavation sites provided with sufficient lighting at night?	N/A	N/A		
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?	N/A	N/A		
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?	N/A	N/A		
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure				
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?	Yes	Yes		Text of information board has to be changed.
b.	Are the contact details readable and understandable by target audience?	No	No		
c.	Are the workers (contractors and subcontractors) informed of the GRM?	Yes	Yes		
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?	Yes	Yes		
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?	Yes	Yes		
	Other Issues/Concerns				

Monitoring/Inspection Questions			Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
	Red Flags:					

Name of Inspector/s:			**Name of PMO/PIU Staff:**	
Position:			**Position:**	
Contractor Site Manager:			**DSC/CSC National Environmental Specialist:**	O.V. Zinina
Contractor Environmental Officer:	R. Kysanov		**DSC/CSC International Environmental Specialist:**	
Contractor Health and Safety Officer:				

Project Number:	50176-002
Project Name:	Issyk – Kul Wastewater Management
Packet No. and/or Lot No.	Contract No. W2 Lot 2
Components/Scope of Work:	Construction for Expansion of Sewer Network in Karakol (5.94km)
Progress (percentage):	Karakol Sewerage Network Extension:
Location/Site inspected:	Karakol City

Date of inspection:	16.06.23
Contractor:	Consortium of Inzhenernaya Zashchita Ltd and Polymer Snab Ltd.
Supervision Company:	Temelsu International Engineering Inc.
SSEMP Clearance Date:	

Monitoring/Inspection Questions		**Yes/ No/ Not applicable (n/a)**	**Yes/ No/ Not applicable (n/a)**	**Observation/ Reason/ Rationale**	**Required Action**
1.	Documents	16.06.23	27.06.23		
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	No	No ongoing works, pre-holiday day		
b.	Any change in scope of work, design, location, and/or method of construction?	No			
c.	All permits/clearances on environment, health and safety (EHS) obtained?	Yes			
d.	Is the SSEMP informed to workers including subcontractors?	Yes			
2.	HSEof Contractor on Employer's site				
a.	Is an Environment Supervisor available?	Yes			
b.	Is the Safety Officer on-site?	Yes			
c.	Is a copy of the SSEMP available on-site and in worksites?	Yes			
d.	Has Contractor established an operational system for HSE?	Yes			
e.	Has the Contractor established data management system for HSE?	Yes			
f.	Laborers hired from licensed manpower suppliers only?	Yes			
g.	All workers (including manpower supply laborers) are insured?	Yes			
h.	Number of workers provided with orientation on safeguards and HSE?	15			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?	Yes			
j.	Company EHS policy available and displayed?	Yes			
k.	Site risk assessment carried out before start of work?	Yes			
l.	Permit to work system followed for critical works?	Yes			
m.	Incident reporting and investigation system in place?	Yes			
n.	Health and Safety committee established and OHS performance reviewed periodically?	N/A			
3.	Facilities				
a.	Are there separate sanitary facilities/toilets for male and female workers?	N/A			
b.	Are the toilets in good conditions, clean, and provided with water all the time?	N/A			
c.	Is drinking water supply available for workers?	Yes			
d.	Is there a rest area for workers?	Yes			
e.	Are storage areas for chemicals available and with protection? İn safe locations?	N/A			
f.	Protection from extreme weather provided?	N/A			
g.	Are the workers camp kept in clean and safe conditions?	N/A			
3.	Health and Safety				
a.	Toolbox talk given to all workers **on daily basis? (*check logbook*)**	Yes			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?	No			
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?	Yes			
d.	Is there a logbook for Health and Safety?	No			
e.	Are there first aiders and first aid kits on site? (1 kit and 1 first aider for every 25 workers)	Yes			
f.	Are emergency contact details available on-site?	Yes			
g.	Are there PPEs available? What are they?	Yes			
h.	Are the PPEs in good condition?	Yes			
i.	Are the PPEs being used by workers **at all times**?	Yes			
j.	Are there firefighting equipment on site?	Yes			
k.	Are excavation trenches provided with shores or protection from landslide?	No			
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*	No			
m.	Is break time for workers provided?	Yes			
n.	Adequate level of light is maintained for working during dark hours?	No			
o.	Buried and overhead utilities identified and controls taken; as appropriate?	Yes			
p.	Electrical tools being used are double insulated and damage free?	N/A			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
q.	Equipment and tools used safe and unbreakable?	Yes			
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?	N/A			
s.	Confined space entry is done through Permit to work system?	N/A			
t.	Are workers (contractors and ubcontractors) covered by accident insurance?	N/A			
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?	2 signs at 50 meters			
v.	Are signages and warning signs translated to local language?	Yes			
w.	Are signages and warning signs visible even at night time?	Yes			
x.	Are there any accidents since the last inspection? How many and what are these accidents?	No			
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?	N/A			
4.	Community safety				
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?	No			
b.	Are safety signages posted around the sites where there are houses, business, or communities?	Yes			
c.	Are temporary and safe walkways for pedestrians available near work sites?	No		No passages were required at the time of visit	

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?	No		The road was not closed	
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?	N/A			
f.	Is there a record of treated water quality testing/measurement?	N/A			
g.	Is there a logbook for community feedback and/or complaints?	Yes			
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?	4		Before starting work on each street	
5.	Solid Waste Management				
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?	Yes			
b.	Is solid waste segregation and management in each work site?	No			
c.	Are hazardous wastes stored separately from non-hazardous wastes?	N/A			
d.	Is there a daily collection of solid wastes from work sites?	Yes			
e.	Is there a temporary storage area for wastes at worker's camp?	Yes			
f.	Are reuseable and recyclable materials segregated?	No			
g.	Is there a logbook for waste collection and disposal?	Yes			
6.	Water Pollution Control and Wastewater Management				

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?	N/A			
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?	N/A			
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?	N/A			
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?	N/A			
e.	Is any wastewater discharged to storm drains?	N/A			
f.	Is any wastewater being treated prior to discharge?	N/A			
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?	N/A			
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?	N/A			
i.	Is there a logbook for water and wastewater quality monitoring?	N/A			
7.	Dust Control				
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?	No		The contract is signed on 08.06.23	
b.	Is the construction site watered on daily basis to minimize generation of dust?	Yes			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
c.	Are roads within and around the construction sites sprayed with water on regular intervals?	No			
d.	Is there a speed control for vehicles at construction sites?	Yes			
e.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?	Yes			
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?	Yes			
g.	Are power/diesel generators provided with air pollution control devices?	No			
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?	Yes			
i.	Is there a logbook for air quality monitoring?	Yes			
8.	Noise Control				
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?	Yes			
b.	Are there any works near sensitive receptors during night time?	No			
c.	Do generators operate with doors closed or provided with sound barrier around them?	N/A			
d.	Is idle equipment turned off or throttled?	N/A			
e.	Are there noise mitigation measures adopted at construction sites?	Yes			
f.	Are neighboring residents notified in advance of any anticipated noisy construction activities?	Yes			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
g.	Is there a logbook for noise level monitoring?	Yes			
9.	Soil Contamination Control				
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?	Yes			
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?	N/A			
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labeled?	N/A			
d.	Are storage areas inspected on daily basis?	Yes			
e.	Are there sufficient equipment and materials to manage spills?	Yes			
f.	There are no source of fire or spark near the storage areas (within 20 meters)?	No			
g.	Are material safety data sheet (MSDS) available on site?	Yes			
h.	Are excess chemicals or materials disposed according the MSDS?	N/A			
10.	Traffic Control				
a.	Are reflective traffic signages available around the construction sites and nearby roads?	Yes			
b.	Are re-routing signages sufficient to guide motorists?	Yes			
c.	Are the excavation sites along roads provided with hard barricades with reflectors?	Yes			

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
d.	Are the excavation sites provided with sufficient lighting at night?	N/A			
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?	Yes			
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?	Yes			
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure				
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?	no			Text of information board has to be changed.
b.	Are the contact details readable and understandable by target audience?	No			
c.	Are the workers (contractors and subcontractors) informed of the GRM?	Yes			
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?	Yes			
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?	Yes			
	Other Issues/Concerns				

Monitoring/Inspection Questions			Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
	Red Flags:					

Name of Inspector/s:			**Name of PMO/PIU Staff:**	
Position:			**Position:**	
Contractor Site Manager:			**DSC/CSC National Environmental Specialist:**	O.V. Zinina
Contractor Environmental Officer:			**DSC/CSC International Environmental Specialist:**	
Contractor Health and Safety Officer:				

Project Number:	50176-002
Project Name:	Issyk – Kul Wastewater Management
Packet No. and/or Lot No.	Contract No. W2 Lot 1
Components/Scope of Work:	Construction for Expansion of Sewer Network in Karakol (6.71km)
Progress (percentage):	
Location/Site inspected:	Karakol City
Date of inspection:	16.06.23 and 27.06.23
Contractor:	Minur Ltd.
Supervision Company:	Temelsu International Engineering Inc.
SSEMP Clearance Date:	

Monitoring/Inspection Questions		**Yes/ No/ Not applicable (n/a)**	**Yes/ No/ Not applicable (n/a)**	**Observation/ Reason/ Rationale**	**Required Action**
1.	Documents	16.06.23	27.06.23		
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	Works are suspended for the period of obtaining of approvals for the works.	No		
b.	Any change in scope of work, design, location, and/or method of construction?		No		
c.	All permits/clearances on environment, health and safety (EHS) obtained?		Yes		
d.	Is the SSEMP informed to workers including subcontractors?		Yes		
2.	HSEof Contractor on Employer's site				
a.	Is an Environment Supervisor available?		Yes		
b.	Is the Safety Officer on-site?		Yes		
c.	Is a copy of the SSEMP available on-site and in worksites?		Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
d.	Has Contractor established an operational system for HSE?		Yes		
e.	Has the Contractor established data management system for HSE?		Yes		
f.	Laborers hired from licensed manpower suppliers only?		Yes		
g.	All workers (including manpower supply laborers) are insured?		Yes		
h.	Number of workers provided with orientation on safeguards and HSE?		15		
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?		Yes		
j.	Company EHS policy available and displayed?		Yes		
k.	Site risk assessment carried out before start of work?		Yes		
l.	Permit to work system followed for critical works?		Yes		
m.	Incident reporting and investigation system in place?		Yes		
n.	Health and Safety committee established and OHS performance reviewed periodically?		N/A		
3.	Facilities				
a.	Are there separate sanitary facilities/toilets for male and female workers?		N/A	Portable toilet is available.	
b.	Are the toilets in good conditions, clean, and provided with water all the time?		N/A		
c.	Is drinking water supply available for workers?		Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
d.	Is there a rest area for workers?		Yes		
e.	Are storage areas for chemicals available and with protection? İn safe locations?		N/A		
f.	Protection from extreme weather provided?		N/A		
g.	Are the workers camp kept in clean and safe conditions?		N/A		
3.	Health and Safety				
a.	Toolbox talk given to all workers **on daily basis? (*check logbook*)**		Yes		
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?		no		
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?		Yes		
d.	Is there a logbook for Health and Safety?				
e.	Are there first aiders and first aid kits on site? (1 kit and 1 first aider for every 25 workers)		Yes		
f.	Are emergency contact details available on-site?		Yes		
g.	Are there PPEs available? What are they?		Yes	PPE includes gloves, vests, helmets.	
h.	Are the PPEs in good condition?		Yes		
i.	Are the PPEs being used by workers **at all times**?		Yes		
j.	Are there firefighting equipment on site?		Yes		
k.	Are excavation trenches provided with shores or protection from landslide?		No	No signage was required at the time of the visit	
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of		No		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
	work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*				
m.	Is break time for workers provided?		Yes		
n.	Adequate level of light is maintained for working during dark hours?		No	No work is carried out during darkness time	
o.	Buried and overhead utilities identified and controls taken; as appropriate?		Yes		
p.	Electrical tools being used are double insulated and damage free?		N/A		
q.	Equipment and tools used safe and unbreakable?		Yes		
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?		N/A		
s.	Confined space entry is done through Permit to work system?		N/A		
t.	Are workers (contractors and ubcontractors) covered by accident insurance?		N/A		
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?		2 signs at 50 meters		
v.	Are signages and warning signs translated to local language?		Yes		
w.	Are signages and warning signs visible even at night time?		Yes		
x.	Are there any accidents since the last inspection? How many and what are these accidents?		No		
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?		N/A	No accidents occurred	
4.	Community safety				

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?		No		
b.	Are safety signages posted around the sites where there are houses, business, or communities?		Yes		
c.	Are temporary and safe walkways for pedestrians available near work sites?		No	No passages are required at the time of visit	
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?		N/A		
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?		N/A		
f.	Is there a record of treated water quality testing/measurement?		N/A		
g.	Is there a logbook for community feedback and/or complaints?		Yes		
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?		3		
5.	Solid Waste Management				
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?		Yes		
b.	Is solid waste segregation and management in each work site?		No		
c.	Are hazardous wastes stored separately from non-hazardous wastes?		N/A		
d.	Is there a daily collection of solid wastes from work sites?		Yes		
e.	Is there a temporary storage area for wastes at worker's camp?		Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
f.	Are reuseable and recyclable materials segregated?		No		
g.	Is there a logbook for waste collection and disposal?		Yes		
6.	Water Pollution Control and Wastewater Management				
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?		N/A		
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?		N/A		
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?		N/A	Bottled water is used	
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?		N/A		
e.	Is any wastewater discharged to storm drains?		N/A		
f.	Is any wastewater being treated prior to discharge?		N/A		
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?		N/A		
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?		N/A		
i.	Is there a logbook for water and wastewater quality monitoring?		N/A		
7.	Dust Control				

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?		No	Contractor did not conclude the contract despite the remarks	
b.	Is the construction site watered on daily basis to minimize generation of dust?		Yes	As required	
c.	Are roads within and around the construction sites sprayed with water on regular intervals?		No		
d.	Is there a speed control for vehicles at construction sites?		Yes		
e.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?		Yes		
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?		Yes		
g.	Are power/diesel generators provided with air pollution control devices?		No		
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?		Yes		
i.	Is there a logbook for air quality monitoring?		Yes		
8.	Noise Control				
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?		Yes	Noise meter in mobile telephone	
b.	Are there any works near sensitive receptors during night time?		No		
c.	Do generators operate with doors closed or provided with sound barrier around them?		N/A		
d.	Is idle equipment turned off or throttled?		N/A		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
e.	Are there noise mitigation measures adopted at construction sites?		Yes		
f.	Are neighboring residents notified in advance of any anticipated noisy construction activities?		Yes		
g.	Is there a logbook for noise level monitoring?		Yes		
9.	Soil Contamination Control				
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?		Yes		
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?		N/A		
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labeled?		N/A		
d.	Are storage areas inspected on daily basis?		Yes		
e.	Are there sufficient equipment and materials to manage spills?		Yes		
f.	There are no source of fire or spark near the storage areas (within 20 meters)?		No		
g.	Are material safety data sheet (MSDS) available on site?		Yes		
h.	Are excess chemicals or materials disposed according the MSDS?		N/A		
10.	Traffic Control				
a.	Are reflective traffic signages available around the construction sites and nearby roads?		Yes		

Monitoring/Inspection Questions		Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
b.	Are re-routing signages sufficient to guide motorists?		Yes		
c.	Are the excavation sites along roads provided with hard barricades with reflectors?		Yes		
d.	Are the excavation sites provided with sufficient lighting at night?		N/A	No ongoing works	
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?		Yes		
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?		Yes		
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure				
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?		no	Information about LFP is lost at repeated order placement for information board	Text of information board has to be changed.
b.	Are the contact details readable and understandable by target audience?		No		
c.	Are the workers (contractors and subcontractors) informed of the GRM?		Yes		
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?		Yes		
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?		Yes		
	Other Issues/Concerns				

Monitoring/Inspection Questions			Yes/ No/ Not applicable (n/a)	Yes/ No/ Not applicable (n/a)	Observation/ Reason/ Rationale	Required Action
	Red Flags:					

Name of Inspector/s:			**Name of PMO/PIU Staff:**	
Position:			**Position:**	
Contractor Site Manager:			**DSC/CSC National Environmental Specialist:**	O.V. Zinina
Contractor Environmental Officer:	Bekzat Shergazievich Dadybaev		**DSC/CSC International Environmental Specialist:**	
Contractor Health and Safety Officer:	Myrzabek Shabdanaliev			

Appendix II – Non-Conformity Tracking Report

temelsu uluslararası MÜHENDİSLİK HİZMETLERİ A.Ş.
international ENGINEERING SERVICES INC.

Issyk-Kul Wastewater Management Project

Non-Conformity Tracking Report

Country	Kyrgyzstan
Project Location	Issyk - Kul Province
Project Name	Issyk-Kul Wastewater Management Project
ADB Project No.	0628-KGZ (SF)
ADB Loan No	
Project Start Date	June / 2019
Anticipated Project End Date	31 December/ 2024
Project Implementation Unit Name	Issyk-Kul Wastewater Management Project Office (PMO)
Person Responsible for Tracking	Kylychbek Zhundubaev
Date of Closure	

Non-Conformity Tracking Report

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
1	Lot2 NW Balykchy (PROFIT EXPRESS)	30/03/22	Health	staff are not aware of the first aid kit	Inform the staff where the first aid kit is stored	N1	Minor	04/04/22	Low	Zhyldyz Moldosanova	Closed	02/04/22
2	Lot1 NW Balykchy (IMPULSE OSH)	30/03/22	Health	staff are not aware of the first aid kit	Inform the staff where the first aid kit is stored	N2	Minor	04/04/22	Low	Bekmamat Japiev	Closed	04/04/22
3	Lot1 NW Balykchy (IMPULSE OSH)	30/03/22	Safety	Trench excavation is not secured	Bring the bridges in compliance with safety requirements	N3	Minor	04/04/22	High	Bekmamat Japiev	Closed	04/04/22
4	Lot1 NW Karakol (PE Minur LLC)	27/04/22	Environment	Bio-toilet missing	Install a bio-toilet	N4	Minor	04/05/22	Low	Bekzat Shergazievich Dadybaev	Closed	02/05/22
5	WWTP Balykchy (CRBC)	20/06/22	Other	Some excavation, some lean concrete, some part of steel works etc. have been implemented without approval / permission / inspection of DSC. IEE	Design should be approved	N5	N/A	25/07/22	Medium	Contractor's Project Manager	Closed	27/07/22
6		20/06/22	Other		Excavation plan should be submitted		N/A	15/07/22	Medium	Contractor's Project Manager	Closed	01/07/22
7		20/06/22	Other		Lean concrete quality and thickness testes should be made		N/A	15/07/22	Medium	Site Manager	Closed	04/07/22
8		20/06/22	Other		Corroded steel bars should be removed		N/A	25/07/22	Low	Site Manger	Closed	05/09/22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
9		20/06/22	Other	and SSEMP has not been approved yet.	Steel tests should be made		N/A	15/07/22	Low	Site Manger	Closed	01/07/22
10		20/06/22	Other		All local authority permits should be taken		Major	15/07/22	High	Project Manager	Closed	10/07/22
11		20/06/22	Environment		IEE, EMP and SSEMP should be approved		Major	15/07/22	High	???	Closed	02/09/22
15	Lot1 NW Karakol (PE Minur LLC)	05/08/22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.	N6	N/A	12/08/22	Low	Site Manager	Closed	06/08/22
16	Lot1 NW Balykchy (IMPULSE OSH)	04/08/22	Safety	There is no fencing of open hatches.	Protect or close all hatches and pits that pose a danger.		Major	11/08/22	High	Contractor's Project Manager	Closed	09/08/22
17	Lot1 NW Balykchy (IMPULSE OSH)	04/08/22	Other	Excess soil is located on the site.	Remove all excess soil	N7	N/A	11/08/22	Low	Contractor's Project Manager	Closed	10/08/22
18	Lot2 NW Balykchy (PROFIT EXPRESS)	04/08/22	Safety	Workers should always be in a PPE	Provide workers with PPE and monitor their use.	N8	Minor	05/08/22	Low	Site Manager	Closed	05/08/22
19	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	05/08/22	Environment	Clogging of the soil with bitumen heating products	Clean up all places of contamination. To provide a platform for bitumen works, which will have a sand or soil cushion.	N9	N/A	12/08/22	Low	Site Manager	Closed	10/08/22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
20		05/08/22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.		N/A	12/08/22	Low	Site Manager	Closed	06/08/22
21	Lot1 NW Karakol (PE Minur LLC)	05/08/22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.	N10	N/A	12/08/22	Low	Site Manager	Closed	06/08/22
22	WWTP Balykchy (CRBC)	15/09/22	Safety	Debris on the way to the shower and toilet.	Clear the way to the shower and toilet.	N11	Minor	16/09/22	Medium	Site Manager	Closed	29/09/22
21	Lot1 NW Balykchy (IMPULSE OSH)	15/09/22	Environment	There is no toilet	The toilet should always be on the construction site	N12	Minor	17/09/22	Low	Site Manager	Closed	19/09/22
22		15/09/22	Other	Remove excess soil	Excess soil is taken to a special site		N/A	17/09/22	Low	Site Manager	Closed	19/09/22
23	Lot1 NW Karakol (PE Minur LLC)	16/09/22	Environment	No trash cans	Garbage cans should always be on the construction site	N13	Minor	16/09/22	Low	Site Manager	Closed	19/09/22
24	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	16/09/22	Environment	Workers work without PPE	Workers should always be in a PPE on the construction site	N14	Minor	16/09/22	Low	Site Manager	Closed	19/09/22
27		16/09/22	Health	A first aid kit should always be on the	Ensure that the first aid kit is located.		N/A	16/09/22	Low	Site Manager	Closed	19/09/22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
				construction site.								
28		16/09/22	Environment	there is no toilet	Install a bio toilet on a construction site		Minor	18/09/22	Low	Site Manager	Closed	22/09/22
29	WWTP Balykchy (CRBC)	28/09/22	Health	Dormitories are not in proper condition	To bring the rooms for workers in proper condition: make the floor, bring the beds into conformity (install beds of the right length), place the necessary shelves for belongings	N15	Major	21/10/22	High	Contractor's Project Manager	Closed	10/01/23
30	WWTP Balykchy (CRBC)	26/10/22	Environment	Site should be cleaned	remove garbage located on the site	N16	Minor	01/11/22	Low	Site Manager	Closed	29/10/22
31		26/10/22	Environment	Oil leaks	Fix oil leaks of machinery operated at WWTP, maintain construction machinery in the proper condition throughout construction works		Minor	01/11/22	Low	Site Manager	Closed	31/10/22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
32		26/10/22	Health	Kitchen not in hygienic conditions	Arrange a canteen in the room next to the kitchen to meet the sanitary-hygienic requirements		Major	26/11/22	High	Contractor's Project Manager	Closed	31/10/22
33	Lot1 NW Balykchy (IMPULSE OSH)	26/10/22	Environment	A portable toilet is not available	Install a bio toilet on a construction site	N17	Minor	03/11/22	Low	Site Manager	Closed	27/10/22
34	Lot1 NW Karakol (PE Minur LLC)	27/10/22	Environment	Portable toilet was hit by a car and does not exist	Supply a new toilet	N17	Minor	04/11/22	Low	Site Manager	Closed	28/10/22
35	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	27/10/22	Other	The information board was broken	Provide a new board	N18	N/A	03/11/22	Low	Site Manager	Closed	01/11/22
36	Lot1 NW Balykchy (IMPULSE OSH)	27/11/22	Environment	There is no toilet	The toilet must be permanently located on the construction site	N19	Minor	27/11/22	Low	Site Manager	Closed	30/11/22
37	Lot2 NW Balykchy (PROFIT EXPRESS)	24/11/22	Environment	There is no toilet	Install a bio toilet	N20	Minor	24/11/22	Low	Site Manager	Closed	28/11/22
38	Lot1 NW Karakol (PE Minur LLC)	27/11/22	Other	There is no information board	Information board should be installed	N21	N/A	27/11/22	Low	Site Manager	Closed	30/11/22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
39	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	27/11/22	Other	Safety log not proper	The logs must meet the requirements	N22	N/A	27/11/22	Low	Site Manager	Closed	28/11/22
40	WWTP Balykchy (CRBC)	26/11/22	Environment	Construction debris and household garbage	Garbage should be cleaned daily	N23	Minor	26/11/22	Low	Site Manager	Closed	27/11/22
41		26/11/22	Safety	There is no safety log on the construction site	The safety log must be at the construction site		N/A	26/11/22	Low	Site Manager	Closed	27/11/22
42	Lot1 NW Karakol (PE Minur LLC)	19/05/23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	N24	N/A	31/05/23	Low	Contractor's Project Manager	Closed	-
43	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	19/05/23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	N25	N/A	31/05/23	Low	Contractor's Project Manager	Closed	08/06/23
44		19/05/23	Environment	There is no dumpster	The dumpster must be permanently located on the construction site		N/A	22/05/23	Low	Site Manager	Closed	22/05/23
45	WWTP Balykchy (CRBC)	15/06/23	Safety	Fire extinguishing panel has to be equipped fully.	Procure new equipment.	N26	N/A	26/06/23	Low	Site Manager	Closed	22/06/23

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
46	Lot1 NW Karakol (PE Minur LLC)	16/06/23	Social	Information board does not have a telephone number of LFP	Add a telephone number	N26	N/A	23/06/23	Low	Contractor's Project Manager	Closed	-
47	Lot1 NW Karakol (PE Minur LLC)	27/06/23	Environment	Contract with a laboratory has to be signed	Conclude a contract	N27	N/A	04/07/23	Low	Site Manager	Closed	-
48	WWTP Balykchy (CRBC)	29/06/23	Safety	The fire extinguishers are not full.	Replace the equipment.	N28	N/A	04/07/23	Low	Site Manager	Closed	30/06/23

Appendix III – Environmental Monitoring Results (Balykchy WWTP)

(i) Ambient Air Quality

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

720005, г. Бишкек, ул. Байтик Баатыра, 34 тел. (996-312) 54-61-22, 54-07-65

ПАСПОРТ НА ПРОБУ
(атмосферный воздух)

1. **Наименование, адрес объекта:** Иссык-Кульская обл., Тонский р-он, Кок-Мойнокский а/о, участок „Насосная станция „Бермет", Представительство „Чайна роуд энд Бридж Корпорейшн", КОС с. Балыкчи
2. **Основание для отбора:**
3. **Порядковый номер и место отбора проб:**
   1 - Западная сторона КОС с. Балыкчи
   2 - Восточная сторона КОС с. Балыкчи
   3 - Южная сторона КОС с. Балыкчи
4. **Цель отбора:**
5. **Характер отобранных проб:** разовый
6. **Условия окружающей среды** солнечно
7. **Температура перед аспиратором:** 8°С
8. **Атмосферное давление:** 624 мм рт. ст.
9. **Дата отбора проб:** 17.03.2023г. с 11:20 ч.
10. **НД на отбор проб:** ГОСТ 33007-2014, 17.2.4.06-90

Пробы отобрал:
Представитель ДЭМ Асанбеков Н., Самыйбек у. М.
(должность, фамилия)
Присутствовали:
Госинспектор
(должность, фамилия)
Представитель предприятия
(должность, фамилия) специалист ООС Касымов Р.

1 стр из 1

Наименование определяемого показателя	НД на метод испытаний	Код пробы	Данные анализа по точкам, мг/м³	ПДК* макс. раз., мг/м³	Испытания провел	Испытания проверил
Диоксид серы	РД 52.04.186-89	03-**125**-23	*0,160±0,019*	**0,5**	Райкеева Р.Н.	Садыкбеков Т.А.
Диоксид азота	РД 52.04.186-89	03-**125**-23	*0,076±0,014*	**0,085**		
Оксид углерода	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-02-2021	03-**125**-23	*0,8±0,16*	**5,0**		
Сумма углеводородов	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-04-2021	03-**125**-23	*2,7±0,54*	**5,0**		
Взвешенные вещества	РД 52.04.186-89	03-**125**-23	*0,156±0,039*	**0,5**		

Наименование определяемого показателя	НД на метод испытаний	Код пробы	Данные анализа по точкам, мг/м³	ПДК* макс. раз., мг/м³	Испытания провел	Испытания проверил
Диоксид серы	РД 52.04.186-89	03-**126**-23	*0,144±0,017*	**0,5**	Райкеева Р.Н.	Садыкбеков Т.А.
Диоксид азота	РД 52.04.186-89	03-**126**-23	*0,083±0,015*	**0,085**		
Оксид углерода	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-02-2021	03-**126**-23	*0,63±0,13*	**5,0**		
Сумма углеводородов	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-04-2021	03-**126**-23	*3,0±0,6*	**5,0**		
Взвешенные вещества	РД 52.04.186-89	03-**126**-23	*0,156±0,039*	**0,5**		

Наименование определяемого показателя	НД на метод испытаний	Код пробы	Данные анализа по точкам, мг/м³	ПДК* макс. раз., мг/м³	Испытания провел	Испытания проверил
Диоксид серы	РД 52.04.186-89	03-**127**-23	*0,153±0,018*	**0,5**	Райкеева Р.Н.	Садыкбеков Т.А.
Диоксид азота	РД 52.04.186-89	03-**127**-23	*0,080±0,014*	**0,085**		
Оксид углерода	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-02-2021	03-**127**-23	*1,1±0,22*	**5,0**		
Сумма углеводородов	СТП ДЭМ 03-01-2021, СТП ДЭМ 03-04-2021	03-**127**-23	*3,1±0,62*	**5,0**		
Взвешенные вещества	РД 52.04.186-89	03-**127**-23	*0,156±0,039*	**0,5**		

ГН «ПДК загрязняющих веществ в атмосферном воздухе населенных мест».
Постановление Правительства КР №201 (прил.№17) от 11 апреля 2016г.

Неопределенность измерений: Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Указанная расширенная неопределенность получена из суммарной стандартной неопределенности путем умножения на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%.

Заключение*: *По результатам проведенных испытаний атмосферного воздуха превышение предельно-допустимой концентрации (ПДК) максимально разовый, по всем показателям в пределах установленных норм.*

**-Вне аккредитации.*

Протокол оформила:
Заведующая отдела ОАМКОП **Дарбакова А.С.**

Протокол испытаний касается только образцов, подвергнутых испытаниям.
Испытатель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения испытательной лаборатории запрещена.

Конец протокола.

(ii) Noise and Vibration

ПРОФИЛАБ
оперативная лаборатория

ilac-MRA KCA

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.065
От: 31.05.2021 г.
Область аккредитации
на сайте: www.kca.gov.kg

ОсОО «ПрофиЛаб»
г. Бишкек,
ул. Тоголок-Молдо, 60а
каб. 319. тел.0312325067
сот. 0701005051
e-mail: profilab.ltd@mail.ru

ПРОТОКОЛ ИЗМЕРЕНИЯ ВИБРАЦИИ

№ 02 от «30» марта 2022г.

1. Юридическое лицо, индивидуальный предприниматель или физическое лицо, где производятся измерения, адрес: **Представительство China Road and Bridge Corporation в Кыргызстане г. Бишкек, ул.Манаса 155 Б/В**

2. Объект, где производятся измерения: **Очистное сооружение, Тонский район А/о Кок Мойнок участок КОС Балыкчы**

(наименование, фактический адрес)

3.Основание для проведения измерения: **Договор №11/03**

4.Наименование средств измерений и сведения о калибровке измеряемого прибора:

Наименование средства измерения	Номер	Свидетельство о поверке		Поверено до
		номер	дата	
Экофизика - 110А	**№АВ 130044**	**№К0061-2203/23**	**22.03.23года**	**12 месяцев**

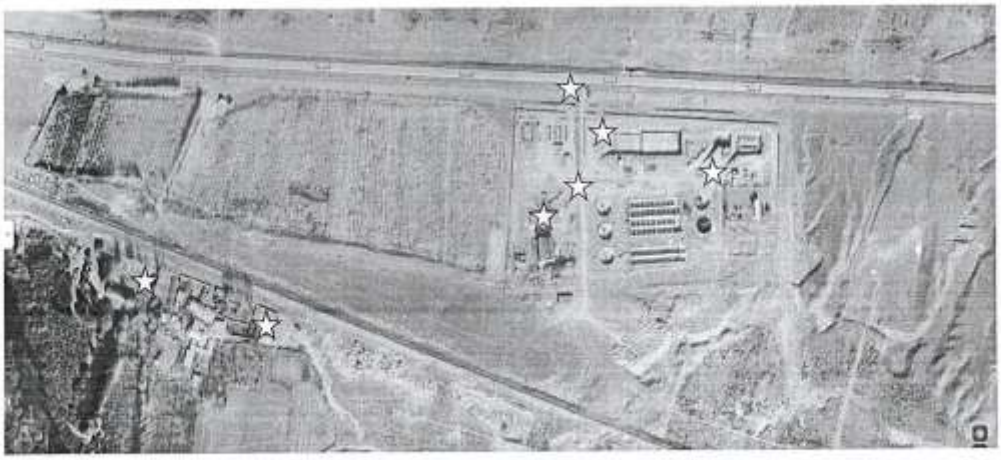
5. Нормативная документация на методы измерений, в соответствии с которой проводились измерения: **ГОСТ 31319-2006 «Вибрация. Измерение общей вибрации и оценка ее воздействия на человека.**

6. Источники физических факторов и их характеристики: **Транспортный поток.**

7. Условие окружающей среды: **Температура: 10 °С**
Влажность: 40%

8. Эскиз:

Места где были произведены замеры. Контрольная точка ☆



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Результаты измерений:

№	Место измерений	Вид вибрации				Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц						Корректированные и эквивалентные корректированные значения и их уровни	
		Общая			Локальная							Частотная коррекция W_m (дБ)	
		Транспортная	Транспортно-технологическая	Технологическая		2	4	8	16	31,5	63		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Территория очистного сооружения, при включенном режиме крана												
	Широта: 42° 28′2″; Долгота: 75°57′23″.												
1	Leq					80	75	70	65	50	50	**80**	Уровень вибрации
	Slow max		+									**88**	Макс. уровень
	Территория очистного сооружения, при выключенном режиме крана												
	Широта: 42° 28′2″; Долгота: 75°57′23′.												
2	Leq					79	73	68	65	60	52	**73**	Уровень вибрации
	Slow max		+									**80**	Макс. уровень
	Территория очистного сооружения, при включенном режиме погрузчика												
	Широта: 42° 28′2″; Долгота: 75°57′23″.												
3	Leq					82	76	72	66	62	60	**91**	Уровень вибрации
	Slow max		+									**98**	Макс. уровень
	Территория очистного сооружения, при включенном режиме погрузчика												
	Широта: 42° 28′2″; Долгота: 75°57′23″.												
4	Leq					78	70	64	59	57	56	**80**	Уровень вибрации
	Slow max		+									**91**	Макс. уровень
	Рядом с общим резервуаром, биологический отстойник												
	Широта: 42° 27′20″; Долгота: 76°8′28″.												
5	Leq					84	73	67	61	57	56	**88**	Уровень вибрации
	Slow max											**95**	Макс. уровень
	Фоновый уровень вибрации от транспортного потока, южная сторона дороги 1-замер												
	Широта: 42° 27′23″; Долгота: 76°6′49″.												
6	Leq					96	93	90	87	56	56	**90**	Уровень вибрации
	Slow max	+										**96**	Макс. уровень
	Рядом с насосной станцией «Берике»												
	Широта: 42°27′20″; Долгота: 76°9′16″.												
7	Leq					86	66	68	65	60	57	**86**	Уровень вибрации
	Slow max											**93**	Макс. уровень

Результаты измерений:

№	Место измерений	Вид вибрации				Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц						Корректированные и эквивалентные корректированные значения и их уровни	
		Общая			Локальная								
		Транспортная	Транспортно-технологическая	Технологическая		2	4	8	16	31,5	63	Частотная коррекция W_m (дБ)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Ближайший дом. Возле дома б/н												
	Широта: 42° 27′11″; Долгота: 76°8′29″.												
8	Leq					74	59	53	56	57	53	**86**	Уровень вибрации
						103	**100**	**100**	**106**	**112**	**118**	**100**	**ПДУ**
	Конференц зал												
9	Leq					76	74	72	70	68	62	**78**	Уровень вибрации
						103	**100**	**100**	**106**	**112**	**118**	**100**	**ПДУ**
	Прорабская												
10	Leq					65	76	68	61	59	55	**86**	Уровень вибрации
						103	**100**	**100**	**106**	**112**	**118**	**100**	**ПДУ**
	Фоновый уровень вибрации от транспортного потока, южная сторона дороги 2-замер												
	Широта: 42° 27′23″; Долгота: 76°6′49″.												
11	Leq	+				91	88	82	80	71	65	**70**	Уровень вибрации
	Slow max											**81**	Макс. уровень
	Площадка на территории сооружения												
12	Leq					75	69	66	54	51	51	**70**	Уровень вибрации
						103	**100**	**100**	**106**	**112**	**118**	**100**	**ПДУ**
	Фоновый уровень вибрации от транспортного потока, южная сторона дороги 3-замер												
	Широта: 42° 27′23″; Долгота: 76°6′49″.												
13	Leq	+				90	85	76	68	64	60	**73**	Уровень вибрации
	Slow max											**80**	Макс. уровень

Уполномоченный представитель объекта, присутствующий при проведении измерений:
фамилия, имя, отчество Кысанов Р.
должность специалист ООС охраны окружающей среды
Подпись

Должность	ФИО	Подпись
Начальник ОЛ	Аманова Н. Т.	
Инженер	Атакозуев К.	

Протокол составляется в двух экземплярах, 1 экземпляр выдается по месту требования, 2-й экземпляр остается в лаборатории.

Примечание: **Результаты протокола соответствуют на момент проведенных измерений.**
Перепечатка протокола без разрешения начальника лабораторией запрещена.
Результаты измерений относятся только данным объектам.

Конец протокола

Заключение по результатам замеров: По результатам инструментальных замеров установлено что уровень общей вибрации на прилегающей территории очистных сооружений участка КОС Балыкчы А/о Кок Мойнок, составило от 73 дБ до 91 дБ. Фоновый уровень вибрации от транспортного потока составил от 70 до 90 дБ. Уровень вибрации на прилегающей территории жилого дома, конференц зале, прорабской и на площадке отдыха соответствуют санитарным требованиям.

Санитарный врач: _____ **Джообазаров Н. К.**
подпись ФИО

М.П.

страница: 4 из 4

ПРОФИЛАБ
оперативная лаборатория

ISO/IEC 17025
№ KG 417/КЦА.И.Л.065
От: 31.05.2021 г.
Область аккредитации

ОсОО «ПрофиЛаб»
г. Бишкек,
ул. Тоголок-Молдо, 60а
каб. 319. тел.0312325067
сот. 0701005051

e-mail: profilab.ltd@mail.ru

ПРОТОКОЛ ИЗМЕРЕНИЯ ШУМА

№ 04 от «30» марта 2023г.

1. Юридическое лицо, индивидуальный предприниматель или физическое лицо, где производятся измерения, адрес: **Представительство China Road and Bridge Corporation в Кыргызстане г. Бишкек, ул.Манаса 155 Б/В**

2. Объект, где производятся измерения: **Очистное сооружение, Тонский район А/о Кок Мойнок участок КОС Балыкчы**

(наименование, фактический адрес)

3.Основание для проведения измерения: **Договор №11/03**

4. Наименование средств измерений и сведения о калибровке измеряемого прибора:

Наименование средства измерения	Номер	Сертификат о калибровке		Меж калибровочный интервал
		номер	Дата	
Экофизика - 110А	**№АВ 130044**	**№К0061-2203/23**	**22.03.2023 г.**	**12 месяцев**

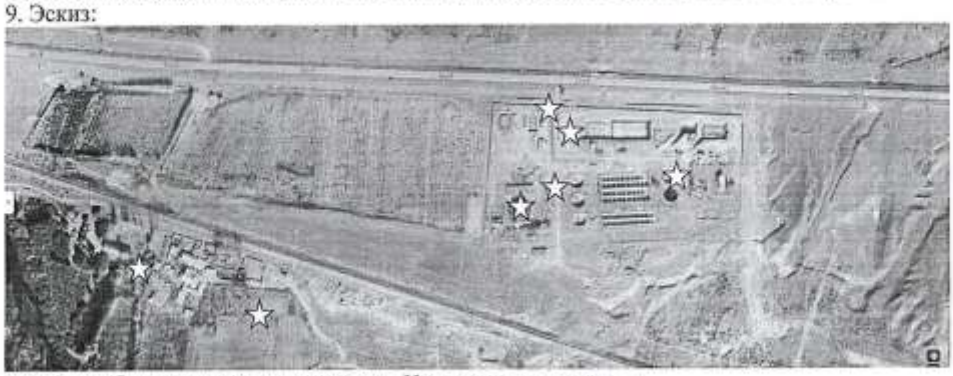
5. Нормативная документация, в соответствии с которой проводились измерения:
ГОСТ 23337-2014 Шум. Методы измерения шума на селитебной территории и в помещениях жилых и общественных зданий.
ГОСТ 20444-2014. Транспортные потоки. Методы определения шумовой характеристики.,

6. Нормативная документация на нормы: **Постановление КР №201 от 11 апреля 2016года. Приложение № 14 «Шум на рабочих местах, в помещениях жилых, общественных зданий и на территории жилой застройки»**

7. Условия окружающей среды: **Температура: 10°С**
Влажность: 40%

8. Источники физических факторов и их характеристики:**Транспортный поток, техника компании**

9. Эскиз:



Места где были произведены замеры. Контрольная точка – ☆

Результаты измерений:

№	Место измерений	Характер шума						Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц									Уровень звука (ДБА)
		По спектру		По временным													
		Широкопол.	Тональный	Постоянный	Колебл.	Прерывис-тый	импульсный	31,5	63	125	250	500	1000	2000	4000	8000	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Территория очистного сооружения, при включенном режиме крана																
	Широта: 42° 28′2″; Долгота: 75°57′23″.																
1	Leq							63	75	69	67	64	65	61	60	56	**72факт**
	Slow max																**78**
	Территория очистного сооружения, при выключенном режиме крана																
	Широта: 42° 28′2″; Долгота: 75°57′23′.																
2	Leq							47	48	48	43	49	43	40	38	35	**57факт**
	Slow max																**63**
	Территория очистного сооружения, при включенном режиме погрузчика																
	Широта: 42° 28′2″; Долгота: 75°57′23″.																
3	Leq							83	75	68	70	69	68	64	60	54	**69факт**
	Slow max																**81**
	Территория очистного сооружения, при включенном режиме погрузчика																
	Широта: 42° 28′2″; Долгота: 75°57′23″.																
4	Leq							61	68	74	70	69	65	62	62	56	**68 факт**
	Slow max																**73**
	Рядом с общим резервуаром, биологический отстойник																
	Широта: 42° 27′20″; Долгота: 76°8′28″.																
5	Leq							47	55	51	55	47	43	41	37	34	**55 факт**
	Slow max																**62**
	Фоновый уровень шума от транспортного потока, южная сторона дороги 1-замер																
	Широта: 42° 27′23″; Долгота: 76°6′49″.																
6	Leq							46	54	42	48	47	37	40	35	37	**68факт**
	Slow max																**71**
	Рядом с насосной станцией «Береке»																
	Широта: 42°27′20″; Долгота: 76°9′16″.																
7	Leq							45	44	37	32	32	38	38	35	32	**53 факт**
	Slow max																**63**
	Ближайший дом. Возле дома б/н																
	Широта: 42° 27′11″; Долгота: 76°8′29″.																
8	Leq							48	48	44	42	40	39	37	38	35	**50факт**
								90	**75**	**66**	**59**	**54**	**50**	**47**	**45**	**44**	**55ПДУ**

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Результаты измерений:

№	Место измерений	Характер шума						Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц									Уровень звука (ДБА)
		По спектру		По временным													
		Широкопол.	Тональный	Постоянный	Колебл.	Прерывистый	импульсный	31,5	63	125	250	500	1000	2000	4000	8000	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Конференц зал																
9	Leq							58	45	40	37	33	31	30	33	30	**51факт**
								79	**63**	**52**	**45**	**39**	**35**	**32**	**30**	**25**	**55ПДУ**
	Прорабская																
10	Leq							48	40	45	46	48	44	38	39	37	**49 факт**
								86	**71**	**61**	**54**	**49**	**45**	**42**	**40**	**38**	**50 ПДУ**
	Фоновый уровень шума от транспортного потока, южная сторона дороги 2-замер																
	Широта: 42° 27′23″; Долгота: 76°6′49″.																
11	Leq							47	52	40	42	39	40	35	37	34	**58факт**
	Slow max																**64**
	Площадка отдыха на территории сооружения																
12	Leq							50	48	45	50	48	42	35	33	33	**52 факт**
								83	**67**	**57**	**49**	**44**	**40**	**37**	**35**	**33**	**65 ПДУ**
	Фоновый уровень шума от транспортного потока, южная сторона дороги 3-замер																
	Широта: 42° 27′23″; Долгота: 76°6′49″.																
13	Leq							53	48	45	42	39	38	36	38	39	**53факт**
	Slow max																**66**

Уполномоченный представитель объекта, присутствующий при проведении измерений:
фамилия, имя, отчество Кысанов Р.
должность специалист ООС охраны окружающей среды
Подпись

Должность	ФИО	Подпись
Начальник ОЛ	Аманова Н. Т.	
Инженер	Нуриддин у. Т.	

Протокол составляется в двух экземплярах, 1 экземпляр выдается по месту требования,
2-й экземпляр остается в лаборатории.

Примечание: Результаты протокола соответствуют на момент проведенных измерений.

Перепечатка протокола без разрешения начальника лаборатории запрещена.

Результаты измерений относятся только данным объектам.

Конец протокола

Заключение по результатам замеров: **По результатам лабораторных замеров установлено, что на момент проведения замеров уровня шума при производственных работ на территории сооружения на участке КОС Балыкчы А/о Кок Мойнок, составил от 53 дБа до 72 дБа. А так же на рабочих местах в прорабской, в конференц зале, на прилегающей территории жилого дома и на площадке отдыха, составил 49-52 дБА, что соответствует требованиям приложения 14 Санитарные правила и нормативы "Шум на рабочих местах, в помещениях жилых, общественных зданий и на территории жилой застройки", утвержденных ПП КР №201 от 11.04.2016г.**
Фоновый уровень шума от транспортного потока составил от 53 до 68 дБ.

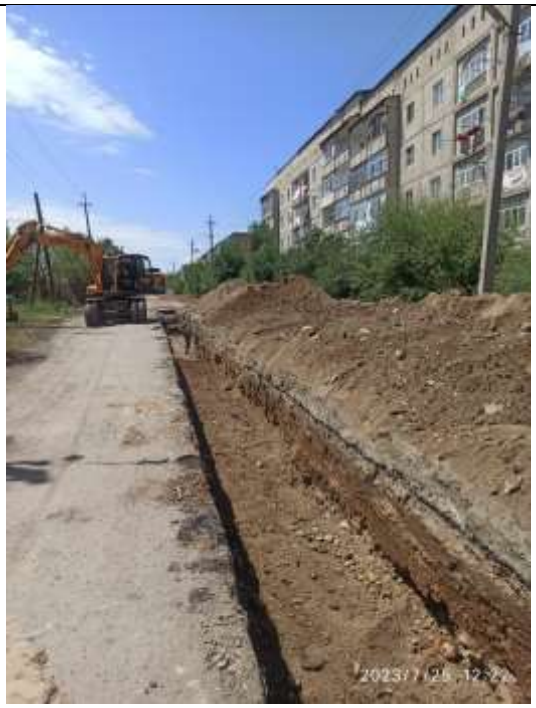
Санитарный врач: _____ **Джообазаров Н. К.**
подпись ФИО

МП

Appendix IV – Site Photographs

Contract no W1 Lot 1	
	
Information boards are not kept at appropriate location	Barricading is not provided at certain sections

Contract no W1 Lot 2	
	
Mobile toilet facility is provided in the site	Barricading is observed to be inadequate, it is suggested to provide hard barricading

Contract no W2 Lot 1	
	
Barricading is not provided	Excess earth has to be removed from the site, temporary passage should have been provided for the locals
	
It is suggested to provide hard barricading with solar blinkers for night time road users	Display board is not legible to read. It is suggested to provide in appropriate size

Contract no W2 Lot 2	
	
Barricading and display board are not provided in the site	Mobile toilet is provided but water facility is not available
	
Construction site has to be demarcated using proper barricading	Construction vehicles are parked within the construction camp

Contract no W4 (Balykchy WWTP)	
	
Noise monitoring has been conducted at Balykchy WWTP site	Barricading is not provided, the construction materials are not stored properly
	
Safety training has been conducted by the Contractor to the Chinese workers	

	
No display boards near the Fire extinguisher	Temporary provision is provided, but the scaffolding is not provided properly