

Social Safeguards Monitoring Report

January – June, 2021
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KGZ: Issyk – Kul Wastewater Management Project

Prepared by the Department of Drinking Water Supply and Sewerage Development (DDWSSD) under the State Agency for Architecture, Construction and Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic in consortium with Temelsu International Engineering Inc., Design and Supervision Consultant.

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TABLE OF CONTENTS

INTRODUCTION	4
1. PROJECT DESCRIPTION	5
1.1. DESCRIPTION OF BALYKCHY SUB-PROJECT	5
1.2. BALYKCHY SEWERAGE NETWORKS DESIGNED	6
1.3. DESCRIPTION OF KARAKOL SUB-PROJECT	7
1.4. KARAKOL SEWERAGE NETWORKS DESIGNED	8
1.5. DESIGNING OF KARAKOL WWTP	9
1.6. SANITARY PROTECTION ZONE	10
1.7. LARF AND LARP OF THE PROJECT	11
2. SCOPE AND OBJECTIVES OF SOCIAL MONITORING	12
2.1. SOCIAL SAFEGUARDS DURING THE REPORTING PERIOD	13
2.2. SOCIAL MONITORING OF SEWERAGE NETWORKS IN BALYKCHY	13
2.3. SOCIAL MONITORING OF SEWERAGE NETWORKS AND PUMPING STATION IN KARAKOL	14
2.4. BALYKCHY WWTP	14
2.5. KARAKOL WWTP	15
2.6. SLUDGE MANAGEMENT AT KARAKOL WWTP	16
3. GRIEVANCE REDRESS MECHANISM (GRM)	17
4. RECOMMENDATIONS AND FURTHER STEPS	18
ANNEX 1. Photos	19
ANNEX 2. Action Plan	20

LIST OF FIGURES

Figure 1. Location of the project in Issyk-Kul region	5
Figure 2. New designed areas of SN and WWTP in Balykchy.....	7
Figure 3. Karakol sewerage network' areas designed	8
Figure 4. Preliminary sanitary protection zones	11
Figure 5. Layout of estimated Karakol WWTP SPZ	16

LIST OF TABLES

Table 1. Main indicators for Karakol sewerage networks	9
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LIST OF ABBREVIATIONS

ADB	—	Asian Development Bank
ADB SPS 2009	—	ADB Safeguard Policy Statement (2009)
AP	—	Affected person (s)
DDPSSES	—	Department of Disease Prevention and State Sanitary and Epidemiological Surveillance
DDWSSD	—	Department of Drinking Water Supply and Sewerage Development
DMS	—	Detailed Measurement Survey
DSA	—	District State Administration
DSC	—	Design and supervision consultant
EA	—	Executing Agency
GKR	—	Government of Kyrgyz Republic
GRG	—	Grievance Redress Group
GRM	—	Grievance Redress Mechanism
AH	—	Affected Household(s)
ISDP	—	Issyk-Kul Sustainable Development Project
IWMP	—	Issyk-Kul Wastewater Management Project
DS	—	Kyrgyz Republic
LAR	—	Land Acquisition and Resettlement
LARF	—	Land Acquisition and Resettlement Framework
LARP	—	Land Acquisition and Resettlement Plan
LFP	—	Local Focal Point
PC	—	Public Consultation
PIU	—	Project Implementation Unit (Issyk-Kul Wastewater Management Project offices, Karakol, Balykchy)
PMO	—	Project Management Office
SAWR	—	State Agency for Water Resources under the Government of the Kyrgyz Republic
SN	—	Sewerage Network
SDD	—	Social Due Diligence
SDDR	—	Social Due Diligence Report
SPZ	—	Sanitary Protection Zone
WWTP	—	Wastewater Treatment Plants

INTRODUCTION

1. Recognizing the significant ecological value of Lake Issyk-Kul and its region, the Government of the Kyrgyz Republic is implementing significant reforms in the water supply and sanitation sector. These strategic directions were defined in the context of national development and tourism in Issyk-Kul as a priority component of the economic development of the region and included in the National Development Strategy of the Kyrgyz Republic for 2018-2040 and the Program for the Development of Drinking Water Supply and Sewerage in Settlements of the Kyrgyz Republic until 2026.¹
2. ADB is helping to improve the management of environmental protection and urban services in the region through the implementation of the Issyk-Kul sustainable development projects. Previously, ADB has assisted to improve environmental management and urban services in the region through the first Issyk-Kul Sustainable Development Project (ISDP-1). The current Issyk-Kul Wastewater Management Project thus complements these initiatives by further improving wastewater systems in the two cities, Balykchy and Karakol, significantly improving health, hygiene and sanitation standards.
3. The project was approved by the ADB Board of Directors on 20 November 2018 and Grant and Loan Agreements between the ADB and the Government of the Kyrgyz Republic were signed on 28 December 2018. The Law of the Kyrgyz Republic No. 60 "On Ratification of the Credit Agreement" dated July 16, 2019 was published in the newspaper "Erkin Too" No. 2019 dated July 19, 2019.
4. The ADB confirmation of 16 August 2019 sets the date of the Project's entry into force and, in accordance with the Grant and Credit Agreements of 28 December 2018, the project is to be implemented from 16 August 2019 to 31 December 2024. Kyrgyz Republic Resident Mission of ADB (KYRM) is the body supervising the project.
5. Department of Drinking Water Supply and Sewerage Development (DDWSSD) under the State Agency for Architecture, Construction and Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic is the executing agency (EA) of the project. A Project Management Office (PMO) established under DDWSSD is responsible for project administration, procurement, contract and financial management, safeguards compliance and reporting.
6. Office of Plenipotentiary Representative of the Government of the Kyrgyz Republic in Issyk-Kul Oblast (PRGIKO) is the implementing agency (IA). PRGIKO established the project implementation units (PIU) in Karakol and Balykchy. Vodokanals², through the PIU, will be responsible for the day-to-day operation of the project, in particular for construction monitoring, including monitoring and providing updated information on compliance with safeguard requirements.
7. This Social Safeguards Monitoring Report (SSMR) for January-June 2021 was prepared by PMO DDWSSD with assistance of the Design and Supervision Consultant Temelsu International Engineering Services Inc (DSC).

¹Decree of the Government of the Kyrgyz Republic dated June 12, 2020, 2020 No. 330

² Municipal enterprises that are directly subordinate to the mayor's office provide services for providing drinking water to the population and organizations, receiving sewage into the sewer network, and treating waste water.

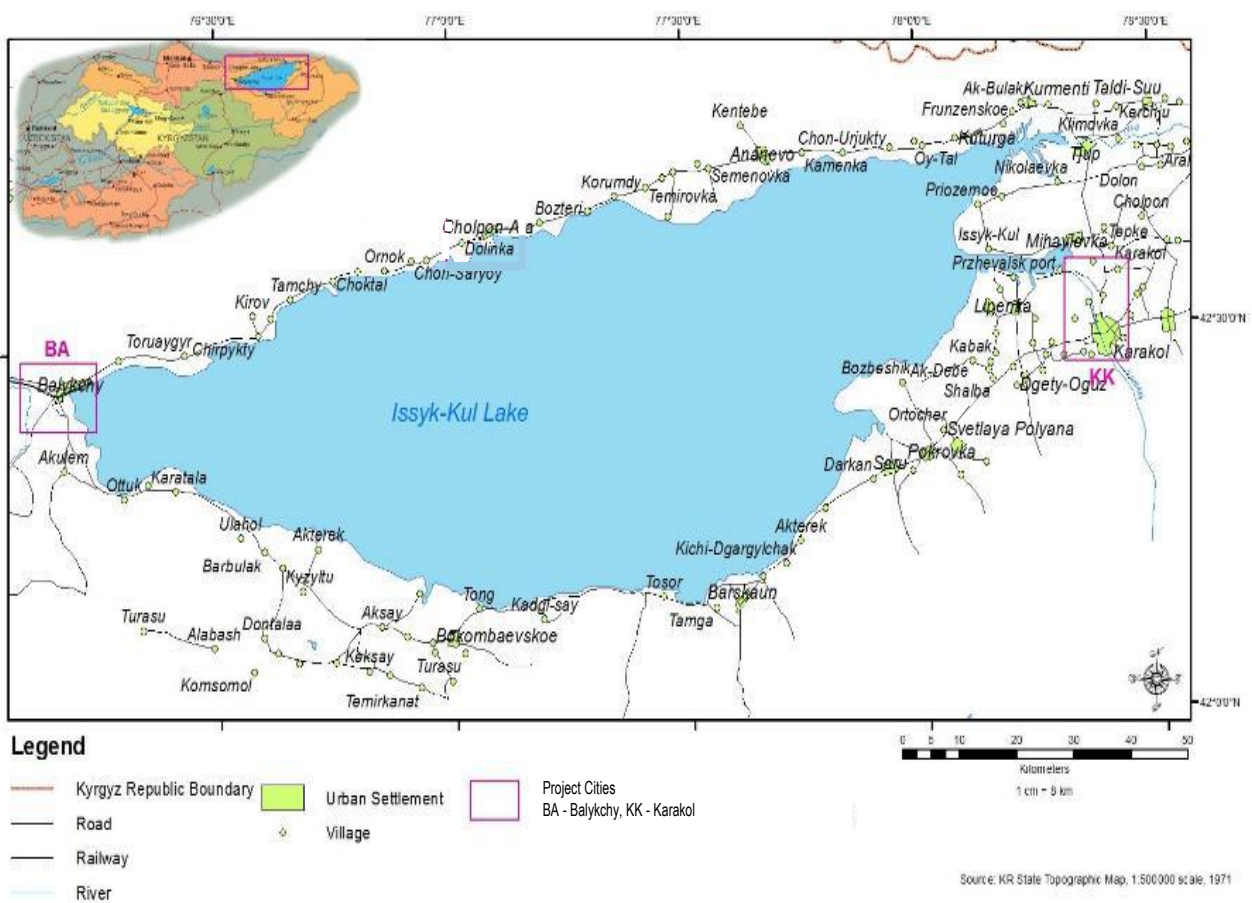
1. PROJECT DESCRIPTION

8. Issyk-Kul Wastewater Management Project (IWMP) is aimed to improve and expand access to reliable, sustainable and affordable sewerage services in Balykchy and Karakol cities, and provides the construction and expansion of existing wastewater treatment systems, strengthening institutional capacity and increasing the sustainability of water supply and sanitation services (the location of two cities is shown in Figure 1).

9. The project outcomes are expected to (i) improve the sewage system in Balykchy and Karakol, (ii) strengthen institutional capacity and (iii) improve the management of septic sludge and sanitation.

10. The project envisages the construction or rehabilitation of sewerage networks and treatment facilities, including WWTP, pump stations, pipelines and related infrastructure, which will significantly improve health, hygiene and sanitation standards.

Figure 1. Location of the project in Issyk-Kul Region



1.1. DESCRIPTION OF BALYKCHY SUB-PROJECT

11. Currently in Balykchy, 3325 households and 106 commercial/industrial/institutional/tourism organizations are connected to the sewerage system. The existing sewerage network consists of 64 km of non-pressure sewers built in the 1970s and currently serves about 35% of the population.

12. In addition, 228 state-funded organizations, enterprises and public institutions, such as hospitals and most schools, are connected to the system.

13. Therefore, Vodokanal has requested to foresee 10.4 km of sewer extensions on four streets, which will secure connection of about 850 additional households to the sewer network, increasing the overall coverage to about 45%.

14. The initially constructed Wastewater Treatment Plant (WWTP) were not put into operation, and have been partially operated since 1991 using some facilities.

15. Balykchy WWTP is located 5 km northwest of the center of Balykchy. The existing ponds provide only limited treatment, acting mainly as storage ponds for wastewater during winter. The pump station (operated by the Department of Water Resources) receives untreated wastewater mixed with water from Chu River, the water is transported through a 1300 m long pressure pipeline to about a 15 km irrigation canal, which irrigates about 70 hectares of land around Balykchy.

16. The planned improvements within IWMP for Balykchy Sewage networks (SNs) and Wastewater Treatment Plants (WWTP) according to the feasibility study are:

- reconstruction of a 4,2 mega liter per day (MLD) wastewater treatment plant (WWTP)³;
- rehabilitation of lagoons⁴; If the lagoons rehabilitation is required, social due diligence will be conducted;
- construction of 10,4⁵ km length of collection sewers in four streets, increasing sewerage coverage from 35% to 45%, and connecting to the primary sewers that were constructed under ISDP-1.

17. Detailed design of Balykchy SNs approved by the PMO and the EA in December 2020 and approved by the state expertise in January 2021. According to the detailed design of Balykchy SNs developed by DSC, 10.7 km of sewage collectors will be constructed, taking into account the transitions and crossings of utilities.

18. The design and construction of Balykchy WWTP and rehabilitation of lagoons have been transferred to another contractor. Bids #IWMP-D&B-002 for Design and Construction of Balykchy WWTP resulted in signing a contract with Consortium CCCC Tianjin Dredging Co, Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co for the amount of \$9,487,632 on May 28, 2021. The relevant bank guarantee was issued on June 25, 2021.

19. As of now, the necessary arrangements are being made for the advance payment to make the Contract come into effect.

20. During the design phase, all possible engineering solutions will be considered to minimize the impact of the project on Land Acquisition and Resettlement (LAR). The results of the design solution will allow determining SPZ extent around the Balykchy WWTP which will be a basis for Land Acquisition and Resettlement Plan (LARP) update.

1.2. BALYKCHY SEWERAGE NETWORKS DESIGNED

21. According to the detailed design approved in December 2020, the site for construction of designed sewage networks (SNs) in Balykchy is limited by Kaldybaeva Street on the East, by T. Moldo Street on the west side, by Ozernaya Street on the South and by Tynystanov Street on the North. The relief of the site has a flat, levelled surface, with a smooth slope in the south-west direction, towards Lake Issyk-Kul.

22. The designed routes of engineering utilities are located in the central part of the city on six streets from Tynystanov str. to Ozernaya str. (Kaldybaeva, Sharipova, Mambetalieva, T. Moldo, Toktosunova and Ozernaya).

³ LARP will be updated after development and approval of the detailed design.

⁴If the lagoons rehabilitation is required, additional social due diligence will be conducted;

⁵ 10.7 km according to the detailed design

23. SNs are designed along the roadways of streets and along street sections with total length 10.7 km, by an "open method" underground laying at a laying depth of 1.7 to 3.5 m. Slopes of the pipelines along the route are determined based on the permissible flow velocity of wastewater, taking into account the natural terrain.

Figure 2. New designed areas of SN and WWTP in Balykchy



Balykchy WWTP



Balykchy Sewerage Network

1.3. DESCRIPTION OF KARAKOL SUB-PROJECT

24. The general sewerage system in Karakol includes a public sewerage network, WWTP with lagoons, as well as cesspools and septic tanks. The total length of the sewerage network is 110 km, the pipe diameter varies from 100 mm to 700 mm. The Karakol sewerage network is non-pressurized, whereas in adjacent Pristan wastewater is pumped out by four pump stations from the sewerage network.

25. As estimated, the network serves a population of about 28,500 people. Similarly to other cities of the Issyk-Kul region, cesspools and septic tanks (reservoirs) are used by 70% of the population. Currently, the areas served - are mainly the central and northeastern areas of the city, but within the ISDP -1 12 km of new sewers were built and 7 km were replaced, covering the area westward from the Karakol River. However, no secondary or tertiary collectors were built to connect to this new collector network. Therefore, it was proposed to build a total of 4.3 km of secondary and tertiary collectors, which will allow an additional 1200 households to be connected to the Karakol sewerage system.

26. The rehabilitation of the sewerage system at Pristan, which currently discharges wastewater to Karakol WWTP, was also carried out under the ISDP-1, but there is also a need for an additional pump station to collect wastewater from about 500 households that are currently discharging sewage into an open pit. As a result, the coverage of the sewerage system in Karakol will increase from 45% to 60%.

27. The treatment plant is located approximately 7 km northwest of the city center, along the Karakol River. The WWTP is located on approximately 13 hectares along the southern slopes of the local river valley. The structure was built in the 1980s before the collapse of the Soviet Union. The facility was designed to use two different treatment processes, a traditional Activated Sludge Processes (ASP) plant and four tertiary treatment ponds, and there is also an anaerobic sludge digestion reactor.

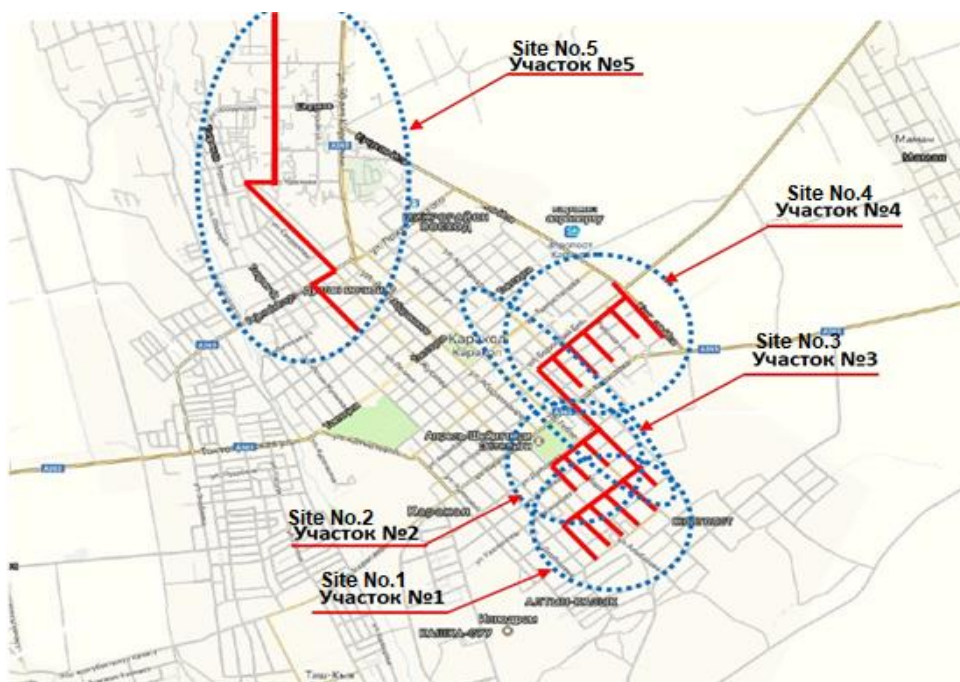
28. Planned improvements for the Karakol WWTP are as follows:

- reconstruction of a 12,0 mega liter per day (MLD) wastewater treatment plant (WWTP);
 - cleaning of the irrigation pond, decision on acceptance for implementation has not been made yet. If cleaning of the irrigation pond is required, social due diligence will be conducted;
29. Planned improvements for Karakol sewerage networks are as follows:
- In accordance with the Detailed Design, the provision of 12.7⁶ km length of secondary sewers, connecting to the primary sewers that were constructed under ISDP-1;
30. Previously it was planned to construct of a new submersible pump station No.4 in Pristan, in order to transmit sewage from households that are not currently connected to the Pristan wastewater system. Currently, an option is being considered to replace the submersible pumping station No. 4 in Pristan with the construction of a settling tank without being connected to the sewerage network. A separate Social Due Diligence Report will be prepared for this design solution.

1.4. KARAKOL SEWERAGE NETWORKS DESIGNED

31. The detail design of the sewerage network of Karakol was developed by DSC, approved by PMO and EA in December 2020 and approved by the state expertise in January 2021.
32. Design and process (technical) solutions suggest the construction of urban sewer networks in the southeastern and northern districts of Karakol.
33. The designed sewer network routes have a total length 12.7 km and are located along Moskovskiy, Duisheev, Boronbai Khan, Asanaliev, Abdrakhmanov, Alybakov, Akhunbaev, Gebze, Lenin, Zhamansariyev, Kadyrov, Przhivalsky, Shokurov streets. The building density is about 60%, with a large number of underground and overhead utilities.

Figure 3. Karakol sewerage network areas designed



⁶ It was planned 4.3 km at the stage of the project preparation

34. The road network has the form of asphalt roads and earth roads.

Table 1. Main indicators for Karakol sewerage networks

№ sections	Name of sections	Length, m				Transition sections, pcs	Manholes, Ø1.5m, pcs
		from pipes Ø200mm	from pipes Ø250mm	from pipes Ø300mm	crossings from pipes Ø150mm		
1	- Section No.1	2968			287	20	97
2	- Section No.2	1746			164	17	58
3	- Section No.3		1365		188	14	52
4	- Section No.4	1782	408	916.5	143	13	90
5	- Section No.5	2685.5			64	5	73
	TOTAL:	9181.5	1773	916.5	846	66	336

35. Detailed design for the sewerage network construction includes rehabilitation of roads, sidewalks and other activities such as intersections with engineering networks, including roads; underground electrical cables; water supply lines; water outlets (canal and reinforced catchment areas); sewer pipes.

36. Sewerage networks are designed along the roadways of streets and along street sections, by an "open method" underground laying at a laying depth of 1.42 to 4.48 m. Slopes of the pipelines along the route are determined based on the permissible flow velocity of wastewater, taking into account the natural terrain.

1.5. DESIGNING OF KARAKOL WWTP

37. The existing wastewater treatment plant was constructed in 1980 and designed for full mechanical and biological treatment with a design capacity of 22 000m³/day. Currently, the WWTP does not measure actual influent water, however, according to estimates of the Karakol Vodokanal (KVK), the average existing flow is 7500 m³/day with the influent flow of about 6,000 m³/day in the winter and 12,000 m³/day in the summer.

38. Wastewater from the main part of the city is delivered to WWTP through a gravity non-pressure sewer system. Pristan village on the shore of Issyk-Kul Lake is located at a lower elevation and wastewater is pumped from there through a pressure pipe by cascade pumping stations PS-1, PS-2 and PS-3 to the wastewater treatment plant.

39. Currently wastewater flows through all structures without biological treatment with partial settling and is discharged into one of the biological ponds without chlorination and then delivered through a gravity pipe to the seasonal run-off basin (SRB) for further use for irrigation of agricultural land. It should be noted that due to non-operation of chlorination unit, the wastewater discharged from treatment facilities, is not disinfected as designed. It is a fundamental breach of sanitary standards.

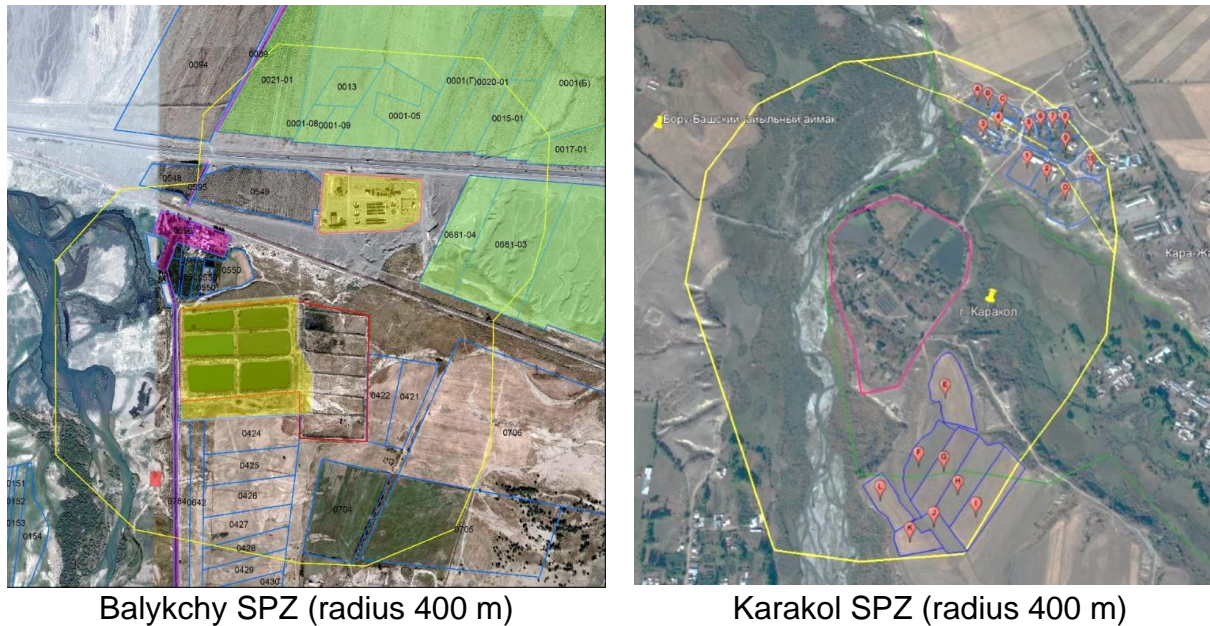
40. In fact, today all tanks for mechanical and biological treatment play the role of sedimentation tanks, sediments are not regularly removed from them, and active rotting of the sediment is visually observed at the bottom of primary sedimentation tanks, aeration tanks, secondary sedimentation tanks and the contact tank.

41. Two existing digesters have not operated from the moment of their construction to the present. Vodokanal had to refuse the operation of digesters because of the complexity of process equipment and the need for their permanent maintenance to maintain the necessary technological process of sludge digestion and due to the lack of necessary personnel.
42. The existing sludge sites are operated partially.
43. All existing buildings such as chlorination plant, pump and blower station and boiler building are half-ruined in a bad condition. Visual inspection showed that demolition is required, and new buildings should be built instead. After a detailed survey of structural condition of buildings for seismic resistance and compliance of production facilities with regulatory requirements, the question of their capital repair can be considered. However, as the visual inspection shows, this is unlikely. The administrative building with a laboratory is in the same condition.
44. For the current period of IWMP, the designing of Karakol WWTP is in progress. Wastewater treatment process is under consideration of PMO and EA now.

1.6. SANITARY PROTECTION ZONE

45. To ensure the safety of the population, a Sanitary Protection Zone (SPZ) is established around facilities and industries that are sources of impact on the environment and human health.
46. The current sanitary and epidemiological rules and regulations "Sanitary protection zones and sanitary classification of objects, buildings and other structures" (SanPiN) define the requirement for sanitary protection zones (SPZ) around WWTPs and pump stations to protect the sensory organs of residents nearby, primarily, from atmospheric impacts.
47. The extent of the SPZ varies depending on the type and size of facilities. For the proposed WWTPs in Balykchy and Karakol, the stipulated SPZ extent is 400 m for WWTP with sludge areas and 300 m for lagoons, while for pumping stations it is between 15-30 meters.
48. In 2017 the Government, ADB and the Consultant made a decision as a conservative approach to take SPZ for WWTP as 400 m. measured from WWTP area boundaries and 20 m from boundaries of pump station in accordance with Regulation #201 of 11 April 2016 of the Government of the Kyrgyz Republic. This served as a basis for the preparation of draft land acquisition and resettlement plan (LARP) during the feasibility stage of the Project.

Figure 4. Preliminary sanitary protection zones



49. Based on the prepared detailed design an authorized state body will make a decision on final boundaries of SPZ which will be a basis for LARP updates.

1.7. LARF AND LARP OF THE PROJECT

50. LARP (covering both Balykchy and Karakol components) and the Land Acquisition and Resettlement Framework (LARF) have been prepared to mitigate and address all associated losses in accordance with ADB Safeguard Policy Statement 2009 (ADB SPS 2009) and relevant national legislation. LARF and draft LARP have been posted on the ADB and EA websites in November 2018⁷.

51. At that period the project was classified as Category B as per involuntary resettlement criteria in accordance with ADB SPS 2009. Impact on households within the SPZ of Balykchy WWTP and Karakol WWTP was identified in draft LARP. At other designed sites for Balykchy and Karakol Sewerage Networks (SNs), no impact on households was found.

52. The detailed measurement surveys were carried out at the stage of draft LARP preparation in 2018 when around 26 affected households with a total of 99 family members were identified.

53. It was estimated that approximately 15 households with 67 family members would have a severe impact on their livelihoods as they will be to be resettled. No household has been identified as belonging to vulnerable groups.

54. LARF was prepared in addition to the draft LARP in relation to the following:

- During project implementation, there may be new investments or adjustments to the proposed investments;
- it was assumed that final alignment of the pipes would only be known on the stage of the detailed design, and unanticipated impacts are possible to occur during installation of pipes;
- SPZ size around WWTPs may be revised once the design of the WWTPs will be completed, based on which LARP will be updated.

⁷ <https://www.adb.org/projects/50176-002/main#project-documents>
<http://tynyksy.kg/2018/08/02/podgotovka-vtorogo-proekta-ustojchivoe-razvitie-issyk-kulya/>

55. The objective of LARF is to establish resettlement principles, organizational arrangements, funding mechanisms, and design criteria which can be applied to subprojects to be prepared during project implementation. This LARF can be applied to all activities of this project that result in involuntary resettlement, regardless of the source of financing.

2. SCOPE AND OBJECTIVES OF SOCIAL MONITORING

56. To ensure the smooth implementation of the Project in accordance with the requirements of ADB Safeguard Policy Statement, 2019 (ADB SPS 2009), a social safeguards monitoring is carried out by the PMO assisted by DSC to comply with the social safeguards established for the Project, including:

- social assessment of project activities prior to any construction work and ADB approval;
- compliance with ADB SPS 2009 requirement that no construction work can be started prior to ADB's no objection including ADB approval to LARP compliance report or to SDDR;
- ensuring that work aimed at minimization of the project impact on households is conducted during the detailed design;
- functioning of grievance redress mechanism (GRM), the timely and effective handling of complaints, if any, during the entire period of the project;
- monitoring compliance with the requirement for the necessary examination, consultation and preparation of a Corrective Action Plan in the event of an unforeseen impact of LAR;
- the Contractor's compliance with the requirements of ABR SPS 2009 in accordance with the contractual documents.

57. Throughout the project Social Safeguards Specialists of PMO and DSC should ensure: (a) regular supervision of the project's grievance handling system and reporting any project-related issues, inquiries and complaints registered from Local Self-Government and all stakeholders; (b) in case of unforeseen impact of LAR, facilitate the necessary examination, consultation and preparation of Corrective Action Plan (as a supplementary document) and provide all necessary permits, legal opinions and agreements;

58. The following reports prepared by PMO with DSC assistance and approved by EA will be submitted for ADB review/approval:

- semi-annual Social Safeguards Monitoring Report(s) (SSMR);
- Social Due Diligence Report (s) (SDDR);
- LARP(s)/updated LARP(s);
- LARP compliance report(s)
- Corrective Action Plan (CAP), if necessary.

59. Once approved the reports are the subject of disclosure at the websites of ADB (English version) and EA (Russian version).

60. It should be noted that the DSC will ensure a social safeguards monitoring during the design and construction of the Balykchy WWTP, which will be carried out by the Design and Build Contractor for Balykchy WWTP.

2.1. SOCIAL SAFEGUARDS DURING THE REPORTING PERIOD

61. The timeframes for social due diligence of the components of project activities and preparation of LARPs/SDDRs depend on the detailed design completion and approval process for detailed design and date of commencement of construction works.

62. As mentioned in section above, the detailed designs of the sewerage network of Balykchy and Karakol completed and approved in the reporting period in compliance with the Laws of Kyrgyz Republic (Q1 2021).

63. The following activities have been implemented for the social safeguards and monitoring during the reporting period:

- Preparation of social monitoring semi-annual report for July-December 2020 and work with ADB comments.
- Work on Social Safeguards within preparation of the detailed design of Balykchy and Karakol networks including measures to avoid the impact of LAR and social due diligence (SDD).
- Field trip of Social Safeguard Specialists of DSC, PMO and ADB to Balykchy site to monitor the measures during the Balykchy SN construction (Annex 1).
- The Social Due Diligence Report for the extension/construction of sewer network in the city of Balykchy was approved by the ADB on June 9, 2021. The report was issued on the ADB⁸ and IWMP⁹ websites.
- Karakol SDDR was prepared in Quarter 2, 2021 and currently it is under ADB's review. Currently, DSC and PMO consider to replace the submersible pumping station No. 4 in Pristan with the construction of a settling tank without being connected to the sewerage network. A separate Social Due Diligence Report will be prepared for this design solution. Previously it was planned to construct of a new submersible pump station No.4 in Pristan, in order to transmit sewage from households that are not currently connected to the Pristan wastewater system.

2.2. SOCIAL MONITORING OF SEWERAGE NETWORKS IN BALYKCHY

64. During the detailed design phase for Balykchy SN in February-May 2021, social due diligence was conducted to determine the project impact on households and their assets. The field studies were conducted jointly with engineers and representatives of Local Self-Government and the Department of Architecture and Urban Planning to verify and confirm that work related to the crossing with other utilities' networks will be carried out within the right-of-way and does not cause impacts on households (neither permanent nor temporary).

65. The detailed design takes into account the intersections of engineering structures identified during the design process, including: roads, underground electric cables, water pipes, culverts (canal and reinforced concrete flumes), sewer pipes.

66. Since issues of crossing with utilities may not have been fully covered in the detailed design, this will be included in the Contractor's and Supervision Consultant's reports on an ongoing basis along with associated social due diligence.

⁸ <https://www.adb.org/projects/documents/kgz-50176-002-sddr>

⁹ <http://iwmp.kg/otchet-proverki-soczialnyh-garantij-pri-rasshirenii-stroitelstve-kanalizacionnoj-seti-v-gorode-balykchy/>

67. In addition, during the construction of sewerage networks Balykchy, internal monitoring will be conducted on routine basis by Social Specialists together with the Contractor's engineers and representatives of Local Self-Government, and the Department of Architecture and Urban Planning of Balykchy city.

68. The project activities will closely be monitored by the PMO, PIU and DSC to ensure the compliance with ADB SPS 2009 requirements and LARF.

69. In case of unforeseen impact of Land Acquisition and Resettlement, measures will be taken to comprehensively study the situation and prepare a Corrective Action Plan (as an additional document) and ensure all necessary permits, legal opinions and agreements.

70. According to the results of SDDR, no impact on households and LAR is expected during construction of the networks in Balykchy. All work will be carried out within the boundaries of municipal lands.

2.3. SOCIAL MONITORING OF SEWERAGE NETWORKS AND PUMPING STATION IN KARAKOL

71. Also, during the detailed design phase, social due diligence was conducted to determine the project impact on households and their assets. The field studies were conducted jointly with engineers and representatives of Local Self-Government and the Department of Architecture and Urban Planning to verify and confirm that work related to the crossing with other utilities' networks will be carried out within the right-of-way and does not cause impacts on households (neither permanent nor temporary).

72. Currently, the option of designing and replacing the submersible pumping station No. 4 in Pristan for construction of a reservoir without connection to the sewage network is being considered.

73. In addition, during the construction of sewerage networks, internal monitoring will be conducted on routine basis by Social Specialists together with the Contractor's engineers and representatives of Local Self-Government, and the Department of Architecture and Urban Planning of Karakol city.

74. The project activities will closely be monitored by the PMO, PIU and DSC to ensure the compliance with ADB SPS 2009 requirements and LARF.

75. In case of unforeseen impact of Land Acquisition and Resettlement, measures will be taken to comprehensively study the situation and prepare a Corrective Action Plan (as an additional document) and ensure all necessary permits, legal opinions and agreements.

76. According to the results of SDDR, no impact on households and LAR is expected during construction of the networks in Karakol. All work will be carried out within the boundaries of municipal lands.

2.4. BALYKCHY WWTP

77. Design development and rehabilitation of the Balykchy WWTP will be carried out by another Contractor who will be responsible for updating the LARP and it will be stated in the contract.

78. Responsibility of the parties involved in the implementation of the project within the framework of the Issyk-Kul Wastewater Management Project is enshrined in the *Matrix of Responsibility for Compliance with Social Safeguards Requirements of ADB and the Kyrgyz Republic* developed by the PMO and agreed with other parties. The Matrix of Responsibilities was given in the previous semi-annual report.

79. In accordance with the Matrix of Responsibilities, monitoring of compliance with the ADB SPS 2009 for the Balykchy WWTP rehabilitation project is assigned to the Project Consultant.

80. The contractor will start work after the entry into force of the contract and receipt of the advance payment in Q3 2021.

81. During the design phase, all possible engineering solutions will be considered to minimize the impact of the project on households. The results of the design solution will allow determining SPZ extent around the Balykchy WWTP which will be a basis for LARP update.

2.5. KARAKOL WWTP

82. DSC engineers are developing the detailed design of Karakol WWTP. The program and plan for sludge sampling have been prepared. Procedures of PMO approval are not completed.

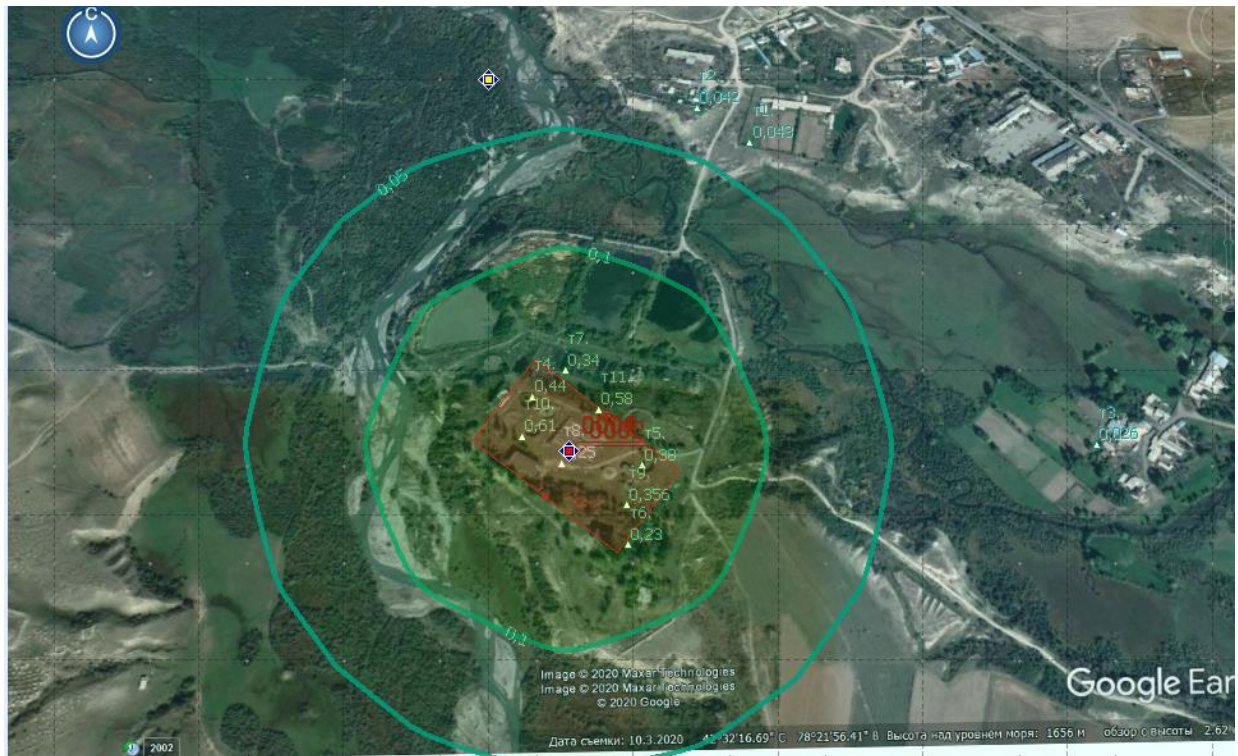
83. Impact on households within the SPZ of Karakol WWTP was identified in draft LARP of 2018. As mentioned above, on the basis of the final detailed design and after approval of the boundaries of final SPZ, the LARP should be updated.

84. During the design phase of Karakol WWTP, all possible engineering solutions are considered to minimize the impact of the project on households. Much will depend on the approved wastewater treatment technology wastewater. In the current period, options for wastewater treatment technology are being considered

85. The Social Safeguard Specialist conducted additional study in accordance with Bardenpho process and prepared calculations to precise quantity and characteristics of pollutants emitted to air at the current period as well as design values.

86. The calculation of ground-level concentration, as well as the determination SPZ size was carried out in a special software (UPRZA Ecocenter).

Figure 5. Layout of Estimated Karakol WWTP SPZ



87. Based on the calculation results, a preliminary size of the sanitary protection zone, within which the requirement for 0.1 MPC of contaminants is met, is 175 meters from the industrial site where the treatment facilities are located. The calculated SPZ covers an area slightly larger than the WWTP area itself. The distance from Karakol WWTP boundary to the nearest residential buildings is about 300 meters and therefore, according to the preliminary calculations it is expected that no household would be affected by the Project.

88. The design of Sanitary Protection Zone will be developed upon obtaining of PMO and EA approval for wastewater process treatment and preparation of the detailed design. SPZ design will be submitted to State Expertise.

89. Upon completion of all Expertises and approval of the design of Karakol WWTP Sanitary Protection Zone, Social Safeguard Team will conduct an additional survey on site and make amendments to LARP or, if there is no impact on households, a due diligence report will be prepared.

2.6. SLUDGE MANAGEMENT AT KARAKOL WWTP

90. During the design of Karakol WWTP, quantitative and qualitative characteristics of the sludge are taken into account. The main purpose of the Sampling and Analysis Plan is to determine whether accumulated sludge is contaminated or not in accordance with international standards and regulations and formulate the subsequent action plan for disposal of the sludge in an environmentally sound manner.

91. DSC developed the Sludge Sampling Program and Plan in December 2020 in accordance with the Terms of Reference.¹⁰ For the current period, approval procedures are being carried out in the PMO and the IA.

92. In the 3rd quarter of 2021, it is planned to carry out a comparative analysis of laboratory research results using statistical methods.

93. The results of sludge analysis will be used to determine a method of final disposal or the use of sludge stored in the lagoons. Only after these measures will the design decision on the selection of the sludge management method and a need of its removal be made.

94. Sludge management will be part of the detailed design of the Karakol WWTP after all approvals are completed.

3. GRIEVANCE REDRESS MECHANISM (GRM)

95. The Grievance Redress Mechanism (GRM) was established at project preparation stage for timely and proper handling of appeals, complaints and inquiries from AEs regarding land acquisition, compensation and resettlement, environmental and gender issues. GRM was established at project preparation stage according to the order of the State Agency for Architecture, Construction, Housing and Communal Services under the Government of the Kyrgyz Republic No. 219 dated June 21, 2018 and updated at project implementation stage according to the order No. 153 dated July 2, 2019. The new order was issued by State Agency of Water Resources under the Government of the Kyrgyz Republic No. 145 dated July 29, 2020 in connection with the start of the next stage.

96. The mechanism consists of a grievance redress process at two levels: local and central. A Grievance Redress Group (GRG) has been established at each level.

97. To assist the complainant (s) in the formal submission of their appeals and complaints, GRG has appointed Local Focal Points (LFPs) who are readily available to HH and entities affected. LFPs are located in the cities of Balykchy and Karakol.

98. The two local contact persons are:

- **Balykchy town** Kolbai Karasartov; Manager of Balykchy PIU, 58 Karalaeva Street, ME "Vodokanal" managerbalykchy@iwmp.kg, +996 700 503 421
- In Karakol: O.I. Zaviyalova Consultant of CE Vodokanal projects Karakol, 5 Tyupskaya str olenka.zavyalova.57@mail.ru, +996 555 040 074

99. In order to optimize the processes of registering complaints, adhering to the deadlines for the consideration of APs' appeals and operational monitoring of the ongoing procedures, PMO/PIU are keeping electronic GRM Log for Karakol and Balykchy:

100. The local focal person in PIU registers and maintains database to handle complaints and appeals related to the project. All data is also available in PMO and DSC.

101. No complaints or appeals have been received (registered) during the reporting period. In February and December 2020, two appeals were registered from local residents to update information about the progress of the project. In response, a letter with the detailed information about the project and a reminder to update the data with the Local Focal Point was provided.

102. During the reporting period no trainings were required on the ADB SPS 2009.

¹⁰ p. 2, iv and p. 11, (i)) sludge management for desludging of lagoons in WWTP, including 39 ha ponds in Karakol and Balykchy, and disposal of uncontaminated sludge.

103. Since the design work is not completed, public consultations have not been carried out for the reporting period.

104. During the reporting period no construction works commenced.

4. RECOMMENDATIONS AND FURTHER STEPS

105. Based on the project plans, the following recommendations are important to ensure social protection measures:

- i. Ensure a timely implementation of planned social safeguards actions agreed with all project stakeholders and developed on the basis of project's plans considering the requirements of national legislation and ADB SPS 2009.
- ii. Conduct social monitoring during the construction of Balykchy and Karakol sewerage networks;
- iii. Update LARP , if necessary after approval of Karakol WWTP detailed design and draft Sanitary Protection Zone borders;
- iv. Conduct social monitoring and prepare SDDR, and, if necessary, update LARP, after approval of the detailed design for construction of the settling basin (or PSP in Karakol);
- v. Conduct timely consultations with Local Self-Government, all affected persons during social due diligence, LARP preparation/updates and implementation as needed;
- vi. Ensure efficiency of GRM and proper participation of Local Self-Government in GRM activities on an ongoing basis;
- vii. Conduct trainings on ADB SPS 2009, GRM for the project stakeholders depending on the project's needs and implementation status.

106. Plan of the next social safeguards actions which is based on the status and plan of the project activities is presented in the Annex 2.

ANNEX 1. PHOTOS

Visiting the Balykchy streets where the SN construction is planned



Kaldybaev st.



Sharipov st.



Toktosunov st.



Mambetaliev st.



T. Moldo st.



Ozernaya st.

ANNEX 2. ACTION PLAN

Social safeguard plans and reports status as of 1 July 2021

No	Subproject/ Subcomponent Name	Activities	Subproject's status (put the actual status): 1. Feasibility study 2. Detailed design 3. Pre-tender 4. Tender (specify) 5. Contractor mobilization 6. Construction	Advertisement Date for selection of the Contractor according to the Procurement Plan Contract Awarded date (if any)
	SSMR for January-June 2021			
Output 1: Balykchy and Karakol wastewater systems improved				
1	Expansion of sewer network (SN) in Balykchy, including	Construction of 10,7km SN	Pre-tender	Q3 2021
1.	Lot 1: Balykchy West: Construction of SN (5.34 km)			
1.	Lot 2: Balykchy East: Construction of SN (5.32 km)			
2	Balykchy WWTP	Design and Build (DB) WWTP in Balykchy	DB Contractor (DBC) mobilization	Q1 2020 Q1 2021
3	Expansion of sewer network in Karakol and Pump station and Rising Main in Karakol, including			Q3 2021
3.	Lot 1: Expansion of sewer network in Karakol	Construction of 12,7 km SN	Pre-tender	Q3 2021
3.	Lot 2: Pump station and rising main in Karakol	Construction of pumping station	The components are under PMO/DSC discussions	
4	Karakol WWTP	Construction of WWTP in Karakol	Detailed design	Q4 2021
5	Balykchy and Karakol Lagoons	De-sludging of sludge lagoons	Detailed design	Q4 2021