ENVIRONMENTAL MONITORING REPORT

Semi-Annual Report: January–June 2023

Tajikistan: Additional Financing for Dushanbe Water Supply and Sanitation Project

Prepared by the Project Implementation group for the State Unitary Enterprise Dushanbevodokanal and for the Asian Development Bank

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July 2023

Semiannual Environmental Monitoring Report

Project Number: 50347-003 G0841

Reporting period: January-June 2023

Republic of Tajikistan: Additional Financing for Dushanbe Water Supply and Sanitation Project

(Financed by Asian Development Bank)

Prepared by the project implementation group with support of SMEC in association with LLC PANASIA LTD for the State Unitary Enterprise “Dushanbevodokanal” and the Asian Development Bank

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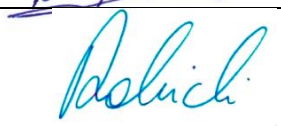
Prepared by	Dilshod DADOBAEV National Environmental Consultant	
Reviewed by	Grzegorz ROKICKI Team Lieder	

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ABBREVIATIONS AND ACRONYMS

ADB	—	Asian Development Bank
COVID-19	—	The Coronavirus Disease
CW	—	Civil Works
DMA	—	District Metering Areas
DVK	—	State Unitary Enterprise Dushanbevodokanal
EMP	—	Environmental Management Plan
GRM	—	Greviance Redress Mechanism
GRC	—	Grievance Redress Committee
IEE	—	Initial Environmental Examination
ISC	—	Inter-ministerial Steering Committee
LARP	—	Land Acquisition and Ressetlement Plan
NRW	—	Non-revenue Water
PIG	—	Project Implementation Group
PMDSC	—	Project Management Design and Supervision Company
SSEMP	—	Site-Specific Environmental Management Plan

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1. INTRODUCTION

1.1. Preamble

1. This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for Additional Financing for Dushanbe Water Supply and Sanitation Project (DWSSP).

2. This report is the 2nd Environmental Monitoring Report for the project.

1.2. Headline Information

3. This is the second SAEMR prepared for the Additional Financing for Dushanbe Water Supply and Sanitation Project and covers the reporting period from January to June 2023. The report describes the status of project implementation, activities carried out by the Project Implementation Group with regard to environmental safeguard issues.

4. The contract for CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin and Lot 2: Rehabilitation of Sewerage network Zebunisso was awarded to OJSC “TajikSGEM”. The civil works on package CW-04 lot 1 and lot 2 commenced in April 2023.

5. During the reporting period, a tender was held for sub-project CW-05 "Detailed design and Construction of Woman Training Center". The tender was awarded to the Consortium LLC "Story-Centr" and LLC "GM and Partners". However, construction works for sub-project CW-05 did not commence during the reporting period.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1. Project Description

7. The proposed grant for AF-DWSSP will expand the scope of the ongoing DWSSP to complement ongoing efforts to improve the infrastructure and performance of WSS services for 352,000 people residing in the south-east part of Dushanbe, the capital of Tajikistan. The proposed project will also improve the management capacity of the service utility, the SUE DVK, which is responsible for WSS services in the city.

8. The AF-DWSSP is intended to expand the scope of the ongoing project to complement it with the planned short-term WSS investments that were envisaged in the Cities Development Initiative for Asia (CDIA) feasibility study, but which were not included in the scope of the ongoing project due to limited funds. The AF-DWSSP will finance: (i) the rehabilitation of water supply network in the DMAs established in the Shomansur district; (ii) the construction of additional water source and storage facilities; and (iii) rehabilitation of further portions of the main sewage pipeline along with the expansion of the network to unserved areas in the district. Climate-proofing and disaster resilience measures will be adopted to increase resilience of WSS infrastructure. The AF-DWSSP will provide supplementary support to the ongoing institutional strengthening activities with focus on NRW reduction and foster the use of performance-based interventions for asset inventory, leak detection, and small works carried out by both DVK teams and small-scale private operators. It will also build the capacity of DVK on COVID-19 emergency response and actions, and water, sanitation, and hygiene (WASH) targeted measures for vulnerable people and women. A women's training and empowerment center will be established with the main goal to (i) promote WASH awareness, (ii) provide vocational and skills trainings to improve employment opportunities for women, and (iii) provide counseling services and shelter for victims of gender-based violence.

9. The project is aligned with the following impact: quality of life, urban health resilience, and economic growth in Dushanbe improved. The project will have the following outcome: inclusive and sustainable access to safe and resilient water supply and sanitation services in Dushanbe city improved. Outputs are:

- **Output 1: Climate-resilient water supply and sanitation infrastructure rehabilitated and expanded**. This output 1 will be delivered by: (i) rehabilitation of 10 wells, 17 pumps and 5-third stage pump stations, water metering, and other facilities at Kafarnihan-I (KAF-I) and Kafarnihan-2 (KAF-2) including operationalization of SCADA system; (ii) reduced NRW through rehabilitation of 5.6 km transmission main; operationalization of 18 DMAs including installation of 5 bulk meters, 1,600 smart-ready meters, improvement of 23.9 km of distributional network improvements in 12 DMAs, (iii) increased storage capacity by 1,500 cum; (iv) rehabilitation of 3.2 kms of sewage collector and construction of 38.6 kms of secondary and tertiary sewerage.

- **Output 2: Sustainable business model and institutional capacity developed**. This output will support prioritized institutional strengthening actions which are: (i) supporting execution of the business model for DVK developed under DWSSP that covers technical, operational, institutional organizational restructuring and human resource management; (ii) providing further support to the operationalization of the smart information management system to develop greater operational efficiency and seamless integration of customer database, billing, collection, accounting and reporting; (iii) support to nonrevenue water management system operationalized with

installation of SCADA for new network management practices for the 18 DMAs using districts equipped with flow meters, smart-ready meters for household service connections, active leaks detection, and calibration of meters; and (iv) institutional, technical and financial capacity of the PIG and DVK improved.

- **Output 3: Establishment of a Women's Development Center.** This output will support the establishment and operation of a Women's Development Center for women's empowerment, protection and skills development. The center will provide support for women victims of domestic violence and provide vocational, leadership and business skills training to help women realize their full potential. The center will also provide counseling, rehabilitation, and shelter services for victims of gender- based violence.

2.1.1. Water supply component

10. Water supply component consists of the following construction work packages:

WS-1 Rehabilitation of the eastern part of KAF-I.

1.1. Rehabilitation of backup power supply line 6 kV from RU4 to PS No. 37, L=1.8km, including replacement of RU4 equipment and cables.

1.2. Riverbank protection, Length = 400m instead of 100m.

1.3. Delineation of 1st, 2nd and 3rd sanitary protection zones including hydrogeological study.

1.4. Fencing of KAF-I along the riverside: Length = 2.8km

1.5. Repair and Rehabilitation of the existing fencing for the 1st sanitary protection zone at KAF-1, L=3.5 km.

1.6. Replacement of 0.4 kW power supply line and outdoor lightning from RU4 to the eastern entrance gate at KAF-I, Length = 3.5km

WS-2 Rehabilitation of KAF-II well field and transmission line from KAF-II well field to KAF-I well field.

2.1. Rehabilitation of 6 + 4 deep wells in KAF-II; replacement of submersible pumps, water lifting pipes, valves and fittings.

2.2. Replacement of electrical equipment:

(i) transformer TR 630/6 at KAF-II and

(ii) power backup line 6 kV, Length = 500 m.

2.3. Rehabilitation of riverbank protection at KAF-II, Length = 100m.

2.4. Construction of pipeline bridge:

(i) bridge, Length = 450m;

(ii) 2 pipelines, Diameter = 800 mm, Length = 920m and

(iii) replacement of main pipeline, Diameter = 800mm, Length =740+100m.

(iv) protective coating of exposed pipeline sections, Diameter = 1200mm, Length = 400m.

2.5. Delineation of 1st, 2nd and 3rd sanitary protection zones including hydrogeological study, pumping tests and water quality analysis.

2.6. Introduction and Installation of SCADA system.

WS-3 Replacement and rehabilitation and/or upgrading of transmission lines and water mains.

3.1. From PS 191 to PS in micro district 192, Length = 400 m, DN400 HDPE 100 SDR 17.

3.2. From village of Mirzobek to village of Chanoro (Makhalla), Length = 1,500m, D = 200 mm, HDPE 100 SDR 17.

WS-4 Rehabilitation of pumping stations and construction and/or rehabilitation of reservoirs.

4.1. Construction of new pressure pipeline Diameter = 300mm, Length = 1,950 m, from PS 192 to reservoirs at Academic of Sciences and Khovaron.

4.2. Rehabilitation of 3rd lifting pumping station in 192 micro district.

4.3. Rehabilitation of water reservoirs 2 x 500 m3 at Academy of Sciences.

4.4. Fencing of the territory of reservoirs Academy of Sciences, Length = 400 m, construction of guard room and toilet, and landscaping works.

WS-5: Rehabilitation of secondary and tertiary networks and establishment of DMAs

5.1. Rehabilitation of network sections in 12 DMAs

WS-6 Rehabilitation of 3rd lifting pumping stations.

6.1. Reconstruction of pumping station 191 m. District.

6.2. Reconstruction of pumping station at Karateginskaya.

6.3. Reconstruction of pumping station at Kamola.

6.4. Reconstruction of pumping station at Bakhori.

11. The location and spatial coverage of water supply components of DWSSP and AF-DWSSP is provided in Figure 1:

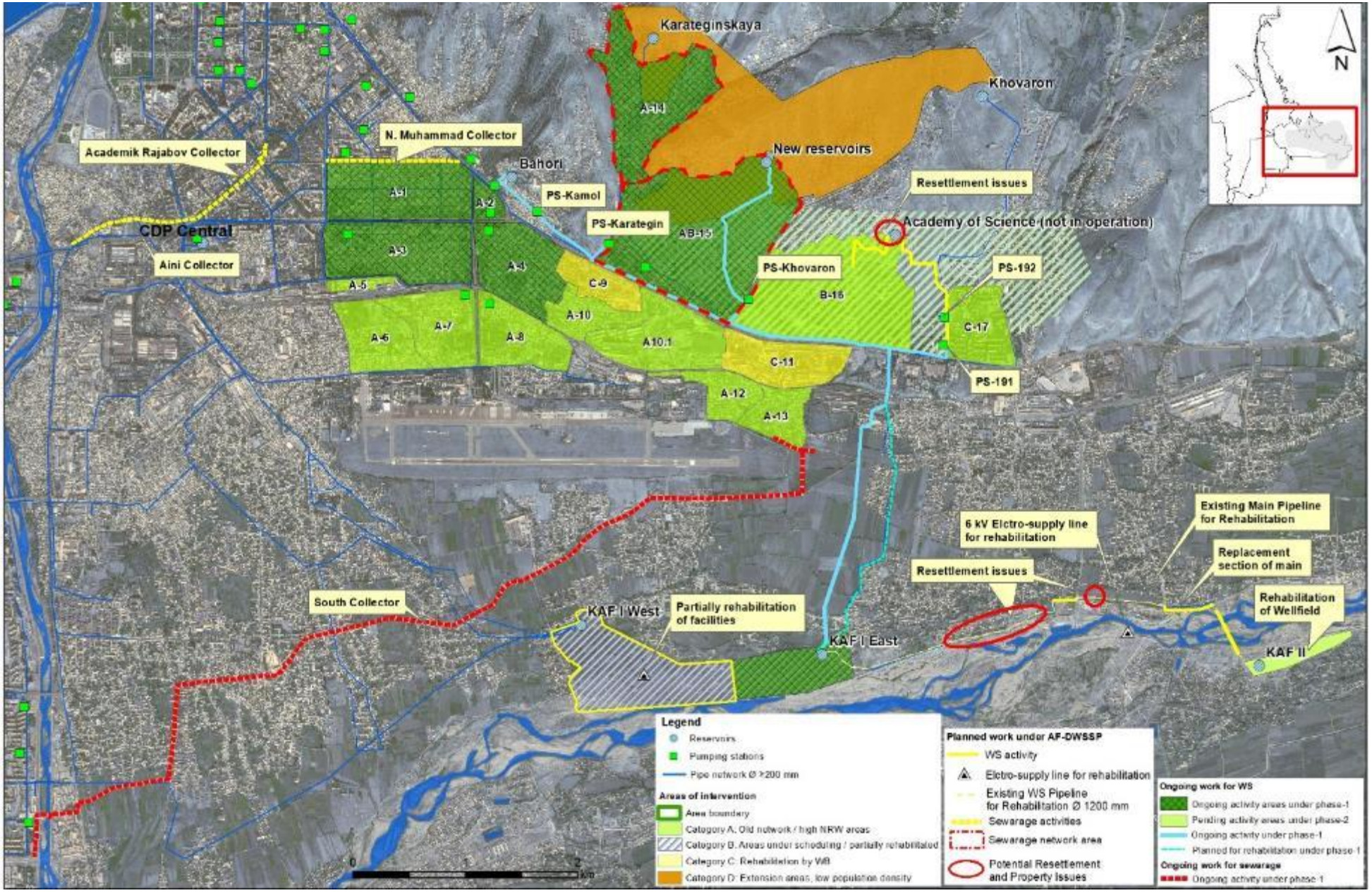

Figure 1: Location and Spatial Coverage of Water Supply and Sanitation Components of DWSSP and AF-DWSSP

2.1.2. Sanitation component

12. Sanitation component consists of the following construction work packages

SS-1: South Collector The south collector is currently completed. There are no remaining components left for AF- DWSSP

SS-2 Construction of remaining section of collector in Ayni Street from Sherozi Street to Kakhorov Street, Diameter = 500 - 600mm, Length = 1.17km, average depth of 3 to 3.5m, including 130m horizontal drilling; catchment area: 3,647,252m2, number of populations: 30,706.

SS-3 Construction of collector in N. Muhammad Street, Diameter = 400mm, Length = 1.05 km, average depth 3.5m, catchment area: 424,550 m2, number of populations: 5,925.

SS-4 Construction of internal sewerage network in Karotegin and Zebunisso (Khovaron village), L=38,6km, D=150-300mm and 500-600, average depth: -2.3m, catchment area: 424,550m2, number of populations: 5,925

SS-5 Construction of a sewerage line in Academics Radjabova Street, Diameter = 400mm, Length = 0.955km, including 40m horizontal drilling, Crossing of Rudaki Street by horizontal drilling, Length = 40m, average depth: -3.5m, catchment area: 48,0002, number of populations: 5,420.

2.1.3. Institutional Capacity Development

13. This activity will support prioritized institutional strengthening actions which are:

- Business model for DVK developed that covers technical, operational, institutional organizational restructuring and human resource management;
- Accountability and incentive mechanism established with a performance benchmarking matrix;
- Smart information management system enhanced for operational efficiency and seamless integration of customer database, billing, collection, accounting and reporting;
- NRW management system operationalized with installation of SCADA for new network management practices for the 18 DMAs using districts equipped with flow meters, smart meters for household service connections, active leaks detection, and calibration of meters;
- Institutional, technical and financial capacity improved; and
- Customer care service standards developed and behavior change communication on water conservation and smart metering conducted.

2.1.4. Women's Training Center

14. The women's training center is now on preliminary design stage. Based on the design, the city already provided land for site of the women's training center. Within the framework of Output 3 – establishment of a women's training and empowerment center in Shohmansur district/ DWSSP target area, the TRTA social team conducted social survey among stakeholders, women and families to understand the current situation and assess

challenges, opportunities and needs of women for livelihood improvement and empowerment of women through the women's training center.

15. Based on data collection results, a concept note for the women's training center has been developed where the structure and functionality scheme of women/training center as well as preliminary requirements of the building capacity were identified. Based on the preliminary ideas, the daily attendance of participants and beneficiaries to the training center were calculated, as well as the number of rooms, sectors and supporting facilities including water and sanitation with the current national and international standards.

16. The women training center will consist of the following structure and building spaces. The training center will have two separate entrances: (1) for the training center and (2) for the one stop support and shelter to the victims of domestic violence. The training center will have the following structure/capacity:

- Hall and reception area; separate area for receptionist (2 people) and wide hall for welcoming guests and participants (15 people at time)
- 1 administration office (3 people)
- 1 trainer's office (5 people)
- 3 meeting rooms equipped for meetings, large gatherings, workshops (20 people)
- 1 room for operation staff (3 people)
- 5 classrooms for trainings (15 people)
- 5 vocational workshop place with necessary training equipment (for cooking class, sewing lessons, beauty business, computer lab, one extra for additional vocational workshop, which might be necessary) (6 people at a time)
- 1 separate full equipped children day care center with facilities (with separate classrooms, bathrooms, dining room, hall) (5 classrooms for up to 15 children)
- 1 fully equipped cafeteria with back office for staff (5 people) and sitting place (15 people)
- 1 fully equipped GYM (20 people per visit)
- 1 sewing workshop (10 people)
- 6 bathrooms separate for male and female (5 people each)

17. The one stop support/shelter for victims of domestic violence will have the following structure/capacity:

- Fully separated with tall fence and one security office (2 people)
- Front yard with benches, and playground for children (10 people)
- Hall and reception area; separate area for receptionist (2 people) and hall for welcoming guests and clients (15 people at time)
- 1 administration office (3 people)
- 4 separate offices for specialists (1 person per office)
- 1 relaxation office
- 1 art therapy office
- 1 playroom (5 children)
- 1 kitchen (4 people)

- 1 dining hall (10 people)
- 6 apartments (bedroom, parlor and kitchen) water sanitation facilities) (12 people x2 per apartment or a 1 family)
- 1 room for operation staff (3 people)
- 3 bathrooms with showers (5 people)

2.2. Project Contracts and Management

18. The project is funded by a grant from the Asian Development Bank (ADB). The project will be implemented by the State Executive Authority of Dushanbe City through SUE Dushanbevodokanal as the project EA. The Project Implementation Group (PIG) established under SUE Dushanbevodokanal will be the Implementation Agency. The PIG will undertake procurement and administer contracts.

19. The project is consisting of 5 Civil Works (CW) packages,

CW-AF-01 Rehabilitation of well fields, pipelines, pumping stations and reservoirs (Components WS-1, WS-2, WS-3, WS-4, WS-6)

Lot-1: Rehabilitation of well fields of KAF I KAF II and Transmission Line

Lot-2: Rehabilitation of pipelines, pumping stations and reservoirs

CW-AF-02 Establishment of DMAs and rehabilitation of secondary and tertiary networks (Component WS-5)

Lot 1: Rehabilitation of secondary and tertiary networks and establishment of DMAs: A-5, A-6, A-7, A-8 and C-9, A10(10-1);

Lot 2: Rehabilitation of secondary and tertiary networks and establishment of DMAs: C-11, A-12, A-13, B-16 and C-17

CW-AF-03 Rehabilitation of Sewerage Collectors of Ayni, N.Muhammad and Akademiks Radjabova (Components SS-2, SS-3, SS-5)

CW-AF-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. (Component SS-4)

Lot 1: Rehabilitation of Sewerage network Karotegin

Lot 2: Rehabilitation of Sewerage network Zebunisso

CW-AF-05 Detailed design and Construction of Woman Training Center

20. Construction works on CW-AF-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin and Lot 2: Rehabilitation of Sewerage network Zebunisso were awarded to Consortium OJSC “TajikSGEM”, LLC “AZkompozit” and LLC “Story-Center” on 5 December 2022.

21. Component CW-AF-05, Detailed design and Construction of Woman Training Center were awarded to Consortium LLL “Story-Centr”, and LLC “GM and Partners” on 3 July 2023.

22. Tenders for remaining components are scheduled for third Quarter of 2023.

23. The national initial environmental examination report covering entire scope of the project and final construction design was submitted for review by the PIG to the State Ecological Expertise of Committee for Environmental Protection, which issued “environmental appraisal” on 15 February 2022 (Registration No. 212-15)

24. with following conditions (Annex 1):

a) during the implementation of the project component “Construction of internal sewerage network system in Karotegin and Zebunisso mahals” it is mandatory to

observe the requirements of Construction rules and regulations (SNiP), sanitary norms (SN) 245-71, State and ecological standards, norms and requirements of the legislation of the Republic of Tajikistan in the field of protection and improvement of environment;

b) before the start of construction work to coordinate measures for the protection of the environment and competent authorities;

c) the solid domestic, construction and other wastes generated must be collected in a temporary landfill and disposed in a legal landfill in accordance with the established procedure;

d) control over observance of the legislation of the Republic of Tajikistan in the field of protection and improvement of environment is assigned to Main Department of environment protection of the city of Dushanbe;

e) a copy of this conclusion should be provided to the Department of Environmental Protection of Dushanbe.

25. Summary of civil works contracts and works' progress is in Table 1.

26. Site-specific environmental management plans (SSEMPs) will be developed by each Contractor. No civil works will be commenced before the approval of SSEMP by PIG. Photo documentation of site and surrounding areas before start of construction will be conducted and included in subsequent SAEMRs as applicable.

Table 1: Summary of Civil Works Contracts and works' progress

Package	Scope	Contractor	Signed	Approval Date			Environmental personnel		Civil Work			(%) Progress as of	
				SSEMP	HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	DLP	31 Dec 2022	30 Jun 2023
CW-01	CW-01 Rehabilitation of well fields, pipelines, pumping stations and reservoirs Lot-1: Rehabilitation of well fields of KAF I KAF II and Transmission Line	Not selected	n/a	n/a	n/a	n/a	n/a	n/a	(Q3 2023)	(Q4 2025)	Not yet started	0%	0%
	CW-01 Rehabilitation of well fields, pipelines, pumping stations and reservoirs Lot-2: Rehabilitation of pipelines, pumping stations and reservoirs	Not selected	n/a	n/a	n/a	n/a	n/a	n/a	(Q3 2023)	(Q4 2025)	Not yet started	0%	0%
CW-02	CW-02 Establishment of DMAs and rehabilitation of secondary and tertiary networks Lot 1: Rehabilitation of secondary and tertiary networks and establishment of DMAs: A-5, A-6, A-7, A-8 and C-9, A10(10-1);	Not selected	n/a	n/a	n/a	n/a	n/a	n/a	(Q3 2023)	(Q4 2025)	Not yet started	0%	0%
	CW-02 Establishment of DMAs and rehabilitation of secondary and tertiary networks Lot 2: Rehabilitation of secondary and tertiary networks and establishment of DMAs: C-11, A-12, A-13, B-16 and C-17	Not selected	n/a	n/a	n/a	n/a	n/a	n/a	(Q3 2023)	(Q4 2025)	Not yet started	0%	0%
CW-03	CW-03 Rehabilitation of Sewerage Collectors of Ayni, N.Muhammad and Akademiks Radjabova	Not selected	n/a	n/a	n/a	n/a	n/a	n/a	(Q3 2023)	(Q4 2025)	Not yet started	0%	0%
CW-04	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Consortium OJSC "TajikSGEM", LLC "AZkompozit" and LLC "Story-Centr"	05 Dec 2022	March 2023	March 2023	March 2023	Sherov Hasan	Kholnazarov N.	April 2023	(Dec 2025)	Not yet started	0%	21%
	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso	Consortium OJSC "TajikSGEM", LLC "AZkompozit" and LLC "Story-Centr"	05 Dec 2022	March 2023	March 2023	March 2023	Sherov Hasan	Kholnazarov N.	April 2023	(Dec 2025)	Not yet started	0%	14%

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Package	Scope	Contractor	Signed	Approval Date			Environmental personnel		Civil Work			(%) Progress as of	
				SSEMP	HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	DLP	31 Dec 2022	30 Jun 2023
CW-05	CW-05 Detailed design and Construction of Woman Training Center	Consortium LLL "Story-Centr", and LLC "GM and Partners"	03 July 2023	Not yet provided	Not yet provided	Not yet provided	Not yet assigned	Not yet assigned	(August 2023)	(July 2025)	Not yet started	0%	0%

Note: The Month/Years in brackets are planned schedule.
DLP = defects liability period, ERP = Emergency Response Plan, HSMP = Health and Safety Management Plan, SSEMP = site-specific environmental management plan

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2.2.1. Project environmental management

27. The PIG under DVK set up by Resolution of the Government of Tajikistan for management of the contracts implementation hired Environmental Specialist Mr. Kamoliddin Kholov in October 2019.

28. SMEC Int. Pty. Ltd have been selected as Project Management, Design and Supervision Company. PMDSC for Dushanbe Water Supply and Sanitation Project hired National environmental consultant Mr. Dilshod Dadobaev in February 2021 and International environmental consultant Mr. Abu Nahid Munir Uddin in September 2021. All safeguard staff who is working on the Dushanbe Water Supply and Sanitation Project will work on the Additional Financing project as well.

29. Summary of environmental personnel is in Table 2.

Table 2: Summary of Environmental Personnel

Environmental Personnel	Allocated PMs	Date of assignment	Name
Environmental Safeguards Specialist under the PIG	Full-time	05 Oct 2019	Kholov Kamoliddin
International Environmental Specialist (IES) under the PMSDSC	2 PMs (intermittent) + 3 PMs (intermittent)	30 Sep 2021	Abu Nahid Munir Uddin
National Environmental Specialist (NES) under the PMSDSC	18 PMs (intermittent)	23 Feb 2021	Dilshod Dadabaev

PIG = Project Implementation Group, PM = person-month, PMDSC = Project Management Support, Design, and Supervision Consultant

Note: Allocated PMs cover both the original DWSSP and the Additional Financing. For the IES, 3PMs have been added specifically under the Additional Financing component.

30. Project Organization Structure and environmental team are shown in **Ошибка! Источник ссылки не найден.** below.

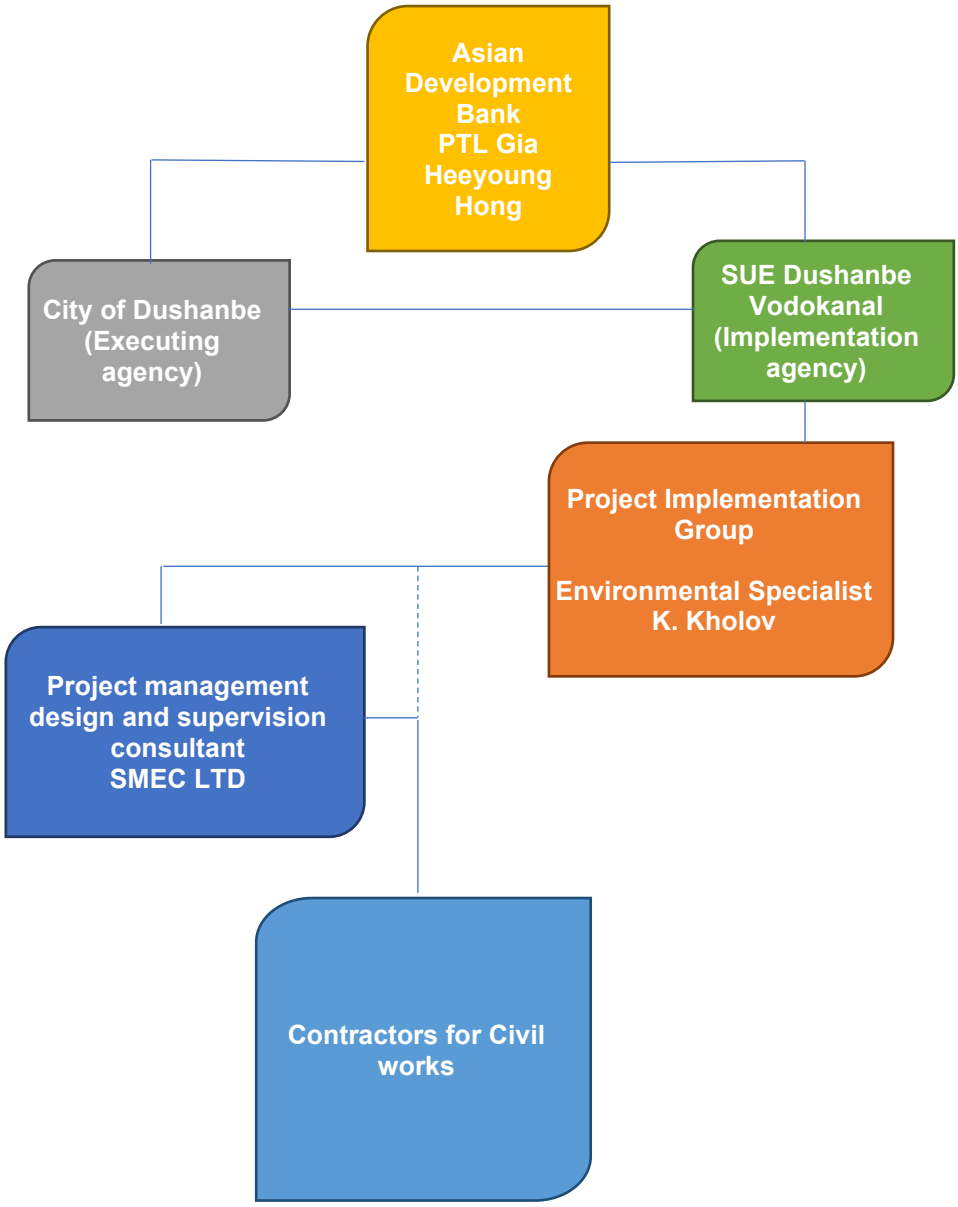

Figure 2. Project Environmental Organization Chart

2.3. Project Activities During Current Reporting Period

2.3.1. CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin

31. Contractor Consortium OJSC “TajikSGEM”, LLC “AZkompozit” and LLC “Story-Centr” started construction works in April 2023. The contractor performed the following works in the reporting period:

- Completed mobilization work
- Works on laying the sewerage pipes (DMA A-14): 950 meters
- Installation of reinforced concrete sewerage wells: 29 sets

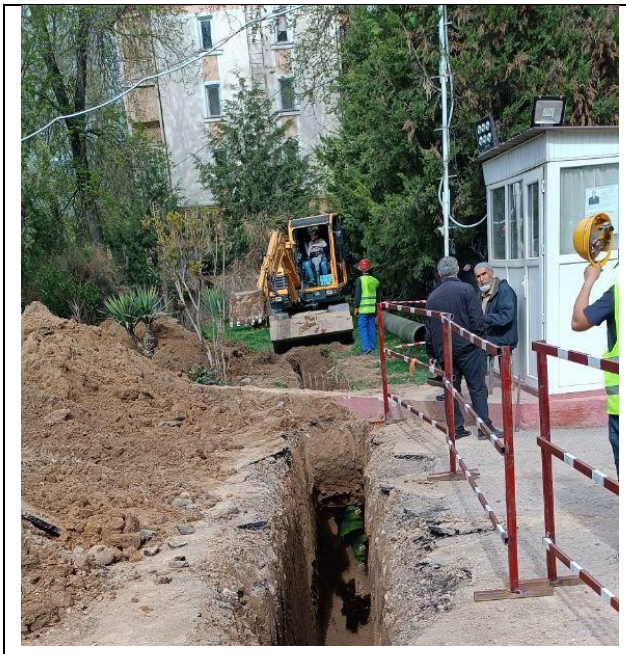

Photo 1: Excavation of trench, 04 April 2023

Photo 2: Installation of reinforced concrete sewerage wells, 05 May 2023

Photo 3: Sidewalk rehabilitation, 22 June 2023

Photo 4: Sidewalk rehabilitation, 22 June 2023

2.3.2 CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebuniso

32. Contractor Consortium OJSC “TajikSGEM”, LLC “AZkompozit” and LLC “Story-Centr” started construction works in April 2023. The contractor performed the following works in the reporting period:

- Completed mobilization work
- Works on laying the sewerage pipes (PP3 AB-15): 319 meters
- Installation of reinforced concrete sewerage wells: 14 sets

Photo 5: Excavation of trench, 14 April 2023

Photo 6: Excavation of trench, 14 April 2023

Photo 7: Installation GRP pipes, 05 May 2023

Photo 8: Installation of reinforced concrete sewerage wells, 02 May 2023

2.4. Description of Any Changes to Project Design

33. During the reporting period, there were no alterations made to the project design.

2.5. Description of Any Changes to Agreed Construction methods

34. During the reporting period, there were no alterations made to the agreed construction methods.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1. General Description of Environmental Safeguard Activities

35. The IEE was submitted by DVK to State Ecological expertise of the Committee for environmental protection under Government of Tajikistan (CEP) for getting their positive conclusion (clearance) on 15 February 2022.

36. To ensure that the contractors comply with the requirements of the EMP, PIG prepared and provided the following specification clauses into the bidding documentation:

- List of environmental management requirements to be budgeted by the bidders in their proposals.
- Environmental clauses for contractual terms and conditions.
- IEE and EMP in English and Russian[1] languages.

Table 3: Environmental Safeguards Activities Carried out During Reporting Period (January - June 2023)

Environmental Safeguard Activities
PIG environmental specialist (Mr. Kamoliddin Kholov) - Participation in preparation of Environmental Monitoring Report - Conducting audits and inspections - Liaising with regulatory agencies - Participation in preparation of bidding documentation
PDCSC Environmental consultant Dilshod Dadobaev - Preparation of Environmental Monitoring Report - Developing environmental monitoring plan - Conducting audits and inspections - Reviewing and updating SSEMPs - Participation in preparation of bidding documentation

3.2. Site Inspections

37. The overall objective of the inspections and audits is to ensure good environmental practice in project operations and enable to establish good governance and efficient environmental management of day-to-day activities. Site inspections and audits in the reporting period are shown in Table 4 below.

Table 4: Site visits and inspections in the reporting period

№	Date	Object	Auditors	Purpose of Audit	Summary of any Findings
1	18 March 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist Laboratory specialist	Instrumental monitoring	Conducted instrumental near sensitive receptors
		CW-04 Rehabilitation of Sewerage network for			

[1] All people speak Russian and better understand technical and technical terms in Russian than Tajik.

№	Date	Object	Auditors	Purpose of Audit	Summary of any Findings
		Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			
1	11 April 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Barriers, rigid fencing around the perimeter of the trench are not installed;
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	14 April 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	18 April 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	30 April 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	03 May 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso.	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env.	Monitoring of the fulfilment of the	Implementation of EMP/SSEMPs and environmental

№	Date	Object	Auditors	Purpose of Audit	Summary of any Findings
		Lot 1: Rehabilitation of Sewerage network Karotegin	Specialist	requirements of the SSEMP during construction works	safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	11 May 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	26 May 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	12 June 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
1	30 June 2023	CW-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin	Dadobaev D. SMEC Env. Consultant Kholov K. PIG Env. Specialist	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	Implementation of EMP/SSEMPs and environmental safeguards can be considered satisfactory
		CW-04 Rehabilitation of Sewerage network for			Implementation of EMP/SSEMPs and

№	Date	Object	Auditors	Purpose of Audit	Summary of any Findings
		Karotegin and Zebunisso. Lot 2: Rehabilitation of Sewerage network Zebunisso			environmental safeguards can be considered satisfactory

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

38. Table 5 summarizes implementation Status of Corrective Actions proposed in the reporting period. All issues from the previous period were closed during the previous monitoring period (by 30 June 2022).

Table 5: Implementation Status of Corrective Actions proposed during the monitoring period (January-June 2023)

Issue	*Required Action*	Responsibility	*Timing (Target Dates)*
Barriers, rigid fencing around the perimeter of the trench are not installed;	Install barriers, such as rigid fencing, around the perimeter of the trench.	The contractor	17 April 2023 Resolved on 12 April 2023 (Photo 10)

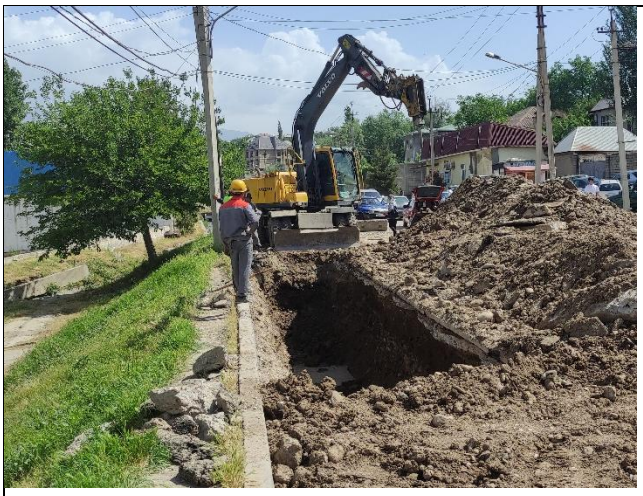

Photo 9: No fencing installed around deep trenches, April 2023

Photo 10: Rigid fences installed, April 2023

3.4. Issues Tracking from the previous period

Issue	Required Action	Responsibility	Timing (Target Dates)
1. SSEMP for CW-04 (Lot 1 and Lot 2) needs to be submitted and approved by PIG/PMDSC before	Contractor to submit SSEMP for approval of PIG/PMDSC	Contractor CW-04. PIG/PMDSC to approve.	**Resolved,** SSEMP prepared and agreed with PMDSC, PIG and Departament of environmental

Issue	Required Action	Responsibility	Timing (Target Dates)
commencement of civil works.			protection of Dushanbe
2. Full-time environmental officer and H&S officer for CW-04 needs to be appointed and mobilized before the start of civil works.	Contractor to appoint environmental officer and H&S officer and submit for PIG's approval.	Contractor CW-04. PIG to approve.	**Resolved**, The contractor hired full time environmental officer - Sherov Hasan and HS officer - Kholnazarov N.
3. Pre-works conditions for CW-04 need to be documented prior to start of civil works.	Prepare a pre-works conditions report for CW-04 (Lot 1 and Lot 2), including photo documentation. This information should be included in the next SAEMR Jan-Jun 2023.	PIG/PMDSC	**Resolved** Pre-works conditions for CW AF-04 prepared

3.5. Trends

39. N/A: Since construction works commenced during the reporting period, it is not possible to determine any specific trends.

3.6. Unanticipated Environmental Impacts or Risks

40. N/A: due to the fact that no construction activities were carried out, no unanticipated environmental impacts and risks were identified.

4. RESULTS OF ENVIRONMENTAL MONITORING

41. During this reporting period, the baseline analysis on noise and air quality was conducted in April 2023 under an agreement and by an order by the PMDSC to Analytical laboratory of the Committee for Environmental Protection. Environmental monitoring is overseen by the approved EMPs, IEEs and EIAs, environmental standards and other environmental commitments.

4.1. Water quality monitoring

42. Due to the absence of any planned work in close proximity to water bodies, there is currently no need for water quality samples to be taken.

4.2. Air quality monitoring

43. During this period, baseline instrumental measurements were recorded at four points near the sensitive areas for subproject CW AF 04/1 and subproject CW AF 04/2 before starting construction works (see Figure 3: Location of noise and air sampling points showing measurement points). There is a slight excess of PM2.5 and PM10 values in some areas, which is associated with intense car traffic and construction of buildings not related to the project. These measurement results are baseline measurements taken before the start of construction and are not related to construction work on the project.

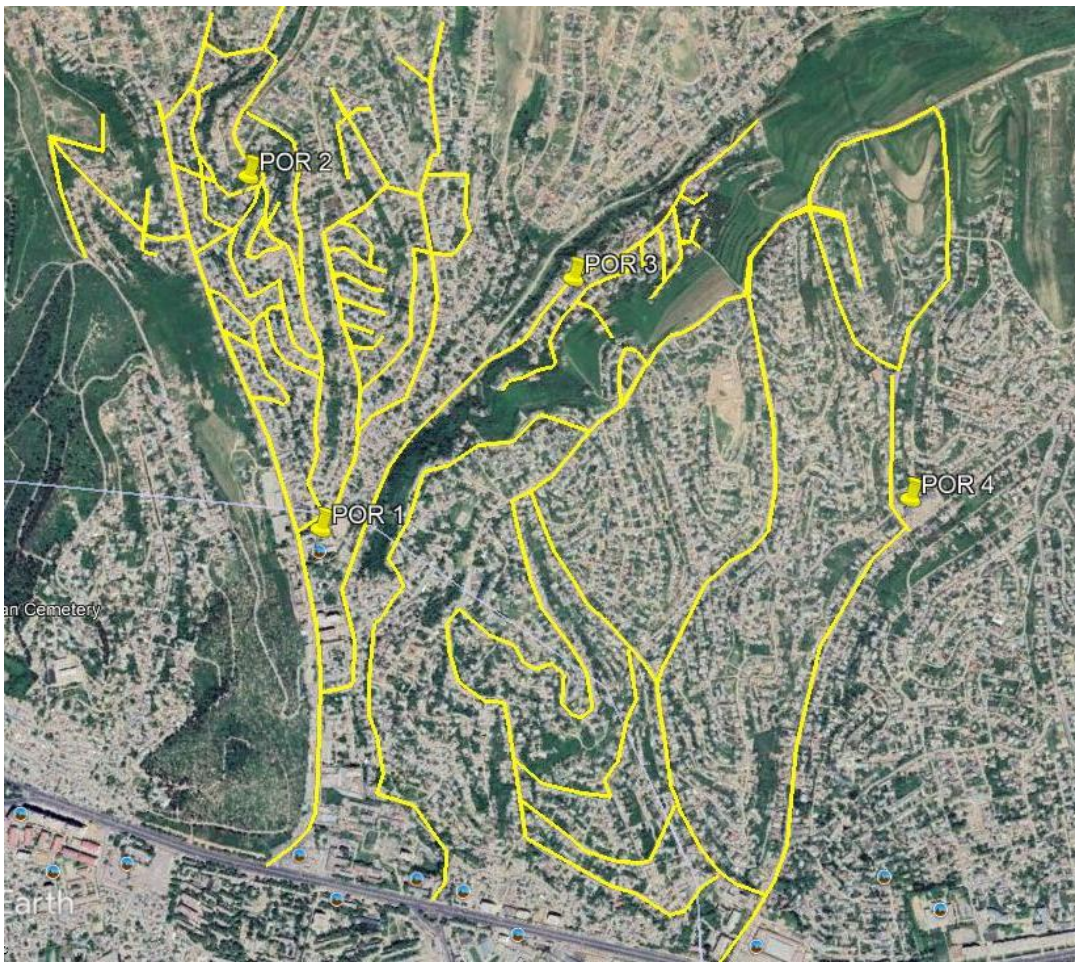

Figure 3: Location of noise and air sampling points

Table 6: Baseline Air Quality Results (March 2023)

Name of Parameters			$PM_{2.5}$, mg/m^3	PM_{10}, mg/m3	CO, mg/m3	CO_2, mg/m3	Total volatile organic compounds (TVOC)	Air Quality Index
MPC			25	50	3	9000		0-100
CW-04 Lot 1	**Point 1**	**School 63**	23,4	45,3	0,979	2633	0,08	107
	Point 2	**Mosque**	21	47	0,943	2694	0,09	102
	Point 3	**School 79**	20	40,7	0,978	2217	0,09	85
	Point 4	**School**	21,6	40,1	0,974	2821	0,01	106

4.3. Noise monitoring

44. During this period, instrumental measurements were done as baseline measurement at four points near the sensitive areas for subproject CW AF 04/1 and subproject CW AF 04/2 before starting construction works. The noise meter was programmed to accumulate the one-hour average noise level (dBA LAeq (1 hour)) noise descriptors continuously over the entire monitoring period. The monitoring results provided in the table below.

Table 7: Baseline Noise Measurement Results (March 2023)

Location of measurement	MPC	Noise, dBA
Additional Financing CW-04/1 and CW-04/2		
Point 1: School 63	55	48
Point 2: Mosque	55	49
Point 3: School 79	55	47
Point 4: School	55	49

Note: All baseline noise levels exceed the standard values. This is connected with the location of people's (road and railway traffic passengers, school childred, kindergarten kids) concentration areas and noisy facilities, such as taxi parkings, railway station, airport, etc.

4.4. Flora and fauna monitoring

45. Monitoring of fauna is not foreseen for this Project according to IEE/EMP. All works take place within the localized urban area.

4.5. Waste Management

46. The Contractor has liaised with Local Administration for disposal of construction waste. The waste management meets the requirements on collection point for household waste. The household wastes are taken by agreement with municipalities of Dushanbe to

designated city landfill. There is agreement with Dushanbe municipal service authorities on disposal of construction waste in landfill located in mahalla Chorbog.

4.6. Health and Safety

47. The Contractors took all precautions at all construction sites for health and safety of the workers and the people of the surroundings in accordance with the Health and Safety Plan submitted by the Contractor and approved by the Dushanbe Environmental Protection Department, after the approval of PIG, following the review and approval of PMDSC. Health and Safety measures are continuously applied, maintained and monitored by the health and safety manager of the Contractor and Environmental and social staff of the PMDSC and the PIG. No accidents or incidents have been recorded during the period.

Community health and safety

48. The territories of all construction sites are mostly fenced, appropriate informational and warning signs are installed. During reporting period, no incidents occurred that led to community health and safety issues, including traffic accidents.

Workers' health and safety

49. Health and Safety measures were continuously applied, maintained and checked by the health and safety managers of Contractors and monitored by the Environmental and social guarantee staff of the PMDSC and the PIG. No accidents or incidents have been recorded during the period.

50. The Contractor assumed the following obligations:

- Provision of PPE (protective clothing, gloves, shoes) and special protective equipment (helmet, goggles and ear protectors, etc.) to personnel in accordance with standards (SNiP III 4-80);
- Provision of protective guardrail of portable type, fencing of stationary type, separation grid, roof for holes, safety warning signs;
- Constant provision of personnel with clean drinking water;
- Ensuring safe disposal of construction waste;
- Availability of fire extinguishers, facilities, firefighting equipment;
- Cooperation with health agencies of Dushanbe city and making first aid kits available.

Construction camps

51. No separate construction camp was established for the ongoing components because all workers are local. The offices of Contractors are in sleeping-cars.

4.7. Training

52. No environmental safeguard related training activities undertaken in this period.

4.8. Summary of Monitoring Outcomes

53. Status of compliance with environmental safeguards related covenants in the Project's Grant Agreement signed between Republic of Tajikistan and ADB on 18 October 2022[2] is summarized in Table 8.

Table 8: Grant Agreement Compliance Status

Schedule	Paragraph	Covenant	Compliance Status
3	3	**Procurement** The Recipient shall or shall cause DVK, through SEADC not award any Works contracts until: a) each of ADB and the State Committee on Environment of the Recipient has granted the final approval of the IEE; and	Complied IEE approved by ADB, and Ecological Expertise of Committee for Environmental Protection, which issued "environmental appraisal" on 15 February 2022 (Registration No. 212-15)
3	3	b) the Recipient has incorporated, or has caused DVK, through SEADC, to incorporate, the relevant provisions from the EMP into the Works contract.	Complied, The provisions that are pertinent to the Environmental Management Plan (EMP) have been integrated into the Works contracts.
3	10	**Environment** The Recipient shall ensure, or shall cause DVK, through SEADC, to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with a) all applicable laws and regulations of the Recipient relating to environment, health and safety;	Being Complied The Recipient is responsible for ensuring that the Project and all its facilities are prepared, designed, constructed, implemented, operated, and decommissioned in compliance with all relevant environmental, health, and safety laws and regulations of the Recipient.
3	10	b) the Environmental Safeguards;	Being Complied The recipient is responsible for ensuring that all aspects of the Project, including preparation, design, construction, implementation, operation, and decommissioning, adhere to the Environmental Safeguards.
3	10	c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in the Safeguards Monitoring Report or corrective action plan.	Being Complied The Recipient is responsible for ensuring that all aspects of the Project, including its preparation, design, construction, implementation, operation, and decommissioning, adhere to the guidelines and regulations outlined in the IEE, EMP, and any corrective or preventative measures specified in the

[2] ADB. Grant Agreement (Special operations) for Additional Financing for Dushanbe Water Supply and Sanitation Project (18 October 2022): https://www.adb.org/sites/default/files/project-documents/50347/50347-003-grj-en.pdf

Schedule	Paragraph	Covenant	Compliance Status
			Safeguards Monitoring Report or corrective action plan.
3	14	**Human and Financial Resources to Implement Safeguards Requirements** The Recipient shall make available, or shall cause SEADC to make available to DVK, necessary budgetary and human resources to fully implement the EMP and the RP.	Being Complied, Both PIG and PDMSC's environmental personnel have been mobilized in accordance with the IEE.
3	15	**Safequards-Related Provisions in Bidding Documents and Works Contracts.** The Recipient shall ensure, or shall cause DVK, through SEADC, to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP and the RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in the Safeguards Monitoring Report or corrective action plan;	Being Complied Contracts under bidding include EMPs cleared by ADB and applicable conditions of national IEE clearances listed under para.20.
3	15	(b) make available a budget for all such environmental and social measures;	Being Complied, The budget allocated for environmental and social measures
3	15	(c) provide the Recipient, through DVK, with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the RP;	Being Complied No unforeseen risks or impacts were identified during the reporting period.
3	15	(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and	Being Complied, A pre-works conditions report for each civil works package will be prepared prior to the start of civil works.
3	15	(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Being Complied PDMSC in conjunction with PIG will control it
3	16	**Safeguards Monitoring and Reporting** The Recipient shall, or shall cause DVK, through SEADC, to: (a) Submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to the respective affected people under the Environmental Safeguards, the Involuntary Resettlement Safeguards and the Indigenous Peoples Safeguards promptly upon submission,	Being Complied, The information from this SAEMR will be translated into Russian language[3] and disclosed at the website of DVK www.okd.tj
3	16	(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE,	Being Complied, ongoing No unforeseen risks or impacts were identified during the reporting period.

[3] All people speak Russian and better understand technical and technical terms in Russian than Tajik

Schedule	Paragraph	Covenant	Compliance Status
		the EMP and the RP (including, without limitation, as a result of any change of design, baseline or other current conditions), promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;	
3	16	(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach; and	Being Complied No actual or potential breach of compliance with the measures and requirements were identified during the reporting period.
3	18	**Labor Standards, Health and Safety** The Recipient shall ensure, or shall cause DVK, through SEADC, to ensure, that the core labor standards and the Recipient's applicable laws and regulations are complied with during Project implementation. The Recipient shall, or shall cause DVK, through SEADC, to ensure to, include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Recipient's applicable labor law and regulations and incorporate applicable workplace occupational safety norms;	Being Complied During the implementation of the Project, utmost care is taken to ensure compliance with the core labor standards and the relevant laws and regulations of the Borrower. The bidding documents and contracts that are financed by ADB under the Project contain specific provisions that mandate the contractors to comply with the applicable labor laws and regulations of the Borrower. Additionally, the contractors are required to incorporate workplace occupational safety norms as a part of their compliance obligations.
3	18	(b) do not use child labor;	Being Complied PDMSC in conjunction with PIG will control it
3	18	(c) do not discriminate workers in respect of employment and occupation;	Being Complied, ongoing PDMSC in conjunction with PIG will control it
3	18	(d) do not use forced labor;	Being Complied, PDMSC in conjunction with PIG will control it
3	18	(e) allow freedom of association and effectively recognize the right to collective bargaining; and	Being Complied PDMSC in conjunction with PIG will control it
3	18	(f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS[4]. to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.	Being Complied, PDMSC, in collaboration with PIG, is organizing an awareness training program to educate contractors working on the Project and the local communities, particularly women, about the dangers of sexually transmitted diseases, including HIV/AIDS. The aim is to ensure that all parties involved are well-informed and

[4] HIV/AIDS – Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome

Schedule	Paragraph	Covenant	Compliance Status
			equipped to protect themselves and others from the risks associated with these infections.

54. Status of compliance with the Project EMP for pre-construction period attached to IEE is summarized in Table 9.

Table 9: Implementation Status of EMP for Sanitation Component (CW-05) during the pre-construction period

Potential Impact / Issue	Mitigation / Management Measure	Compliance Status	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Land Acquisition and Compensation	Ensure that LARP is completed and implemented before start of construction works	Yes LARP prepared and implemented		

Table 10: Implementation Status of EMP for Sanitation Component (CW-04/1 and CW-04/2) during the construction period

Potential Impact / Issue	Mitigation / Management Measure	Compliance Status	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Temporary disruption of traffic and blockage of access roads	1. The Contractor will be responsible for the preparation of the Traffic Management Plan (TMP) as part of the SSEMP prior to start of any construction works. 2. The Contractor will strictly follow the TMP 3. The TMP will also describe the method for provision of access in roads	**Yes**, Traffic management plan prepared and agreed with Traffic Policy		
Hiring of local workers	1. Induction of the workers on community health and safety, grievance redress mechanism, and consultation and communications plan 2. No child labor will be employed in the project	**Yes,** all workers local, before starting the work workers are being trained on HS **Yes**		
Encounter PCR along the pipeline routes	1. A chance find procedure will be included in the SSEMP to ensure appropriate measures are taken in the event cultural resources are encountered.	**Yes,** chance find procedure prepared		

Siltation	1. Any deep excavations in unstable soils will be shored by the Contractor, and below grade construction brought to grade quickly, then excavations closed. 2. Surface soils should be temporarily graded-to-drain and protected as necessary to reduce erosion and sediment runoff.	**Yes,** The contractor is responsible for ensuring the safety of the excavation by shoring it with appropriate support systems. Once the necessary shoring is in place, below-grade construction work can proceed.		
Generation of spoil material and other construction waste	1. Implementation of the Waste Management Plan (WMP) 2. Where possible, surplus materials will be re-used or recycled 3. Stored properly in correctly labeled containers at construction areas 4. Oil and fuel should be stored in mobile bunds to contain spillage 5. The Contractor shall also prepare a spill response plan as part of the SSEMP 6. Waste, both hazardous and non-hazardous, shall be collected and disposed of by a licensed waste management contractor 7. The Contractor will be responsible for the preparation and implementation of a method statement for the safe removal, storage and disposal of asbestos containing materials from the site	**Yes,** Waste management plan prepared and agreed with Department of Environmental protection of Dushanbe		
Work related accidents during construction	1. An Occupational Health and Safety (OHS) Plan shall be prepared by the Contractor to manage worker safety on-site a. OHS Risk Assessment b. Safety Training Program c. Safety Inspection d. Personal Protective Equipment	**Yes**, OHS Plan prepared, Implementation controlled by PMDSC and PIG		

	(PPE) 2. Implementation of COVID-19 measures to manage 1. risk on construction sites			
Increased of localized noise level	1. Receptors for periods of noisier works such as excavation. Describe the activities and how long they are expected to take. Keep affected neighbors informed of progress. 2. Within normal working hours, where it is reasonable to do so: o schedule noisy activities for less sensitive times. o provide periods of respite from noisier works (for example, periodic breaks from jackhammer noise). 3. The weekend/evening periods are important for community rest and recreation and provide respite when noisy work has been conducted throughout the week. Accordingly, work will not be scheduled during these times. 4. All mechanical plant is to be silenced by the best practical means using current technology. Mechanical plant, including noise-suppression devices, will be maintained to the manufacturer's specifications. Internal combustion engines are to be fitted with a suitable muffler in good repair. 5. Fit all pneumatic tools with an effective silencer on their air exhaust port. 6. Install less noisy movement/reversing warning systems for equipment and vehicles that will operate for extended periods, during sensitive times or in close proximity to sensitive sites. Occupational health and safety requirements for use of warning	**Yes**, Noise management plan prepared, working hours agreed with local municipality		

	systems must be followed. 7. Turn off plant when not being used. 8. All vehicular movements to and from the site to only occur during the scheduled normal working hours, unless approval has been granted by the PMDSC. 9. Where possible, no truck associated with the work will be left standing with its engine operating in a 2. street adjacent to a residential area.			
Generation of dust and air pollution	1. Implementation of the Air Quality Management Plan 2. No equipment using any fuel that may produce air pollutants, including mobile generators, will be installed without consent of the PMDSC. 3. Construction equipment will be maintained to a good standard and fitted with pollution control devices which will be regularly monitored by the PMDSC. 4. No burning of debris or other materials will occur on the site. 5. The Contractor will ensure that material stockpiles will be located in sheltered areas and be covered with tarpaulins or other such suitable covering to prevent material becoming airborne. 6. All trucks used for transporting materials to and from the sites will be covered with canvas tarpaulins, or other acceptable type cover (which will be properly secured) to prevent debris and/or materials from falling from or being blown off the vehicle(s). 7. Effective use of water sprays will be implemented (e.g., Carry out watering for dust control at least 3 times a day: in the morning, at noon, and in the afternoon during	**Yes**, Air quality management and dust suppression plan prepared		

	dry weather with temperatures of over 25°C, or in windy weather. 8. Avoid overwatering as this may make the surrounding muddy). All water used for controlling dust will be free of odor and pollution.			
Impact on health, safety and convenience of businesses, residences and users of the street area.	1. Minimize the period of time that a segment of excavation is kept open by not allowing trenching to outpace pipe laying by more than a day or so. Trenches should be backfilled, and ground leveled after installation of piping. Place only bedding and pipe materials at the location that will be used within the next few days work, well out of the line of traffic. Clean up and remove from the site any excess spoil, wood used for shoring and construction materials upon completion of the segment. Compact soil in trench and clean surrounding pavement areas to reduce blowing dust. 2. Provide temporary bridging across the trench at entries to residences and businesses. Otherwise, provide tape barriers to reduce the possibility of an accident. 3. Once work is complete on a segment, pavement surfaces and masonry work (curbs, abutments, stairs, drains, drives, etc.) should be repaired and returned to original condition. All roadway surfaces should be repaired as construction progresses; bid packages will contain a unit bid price for roadway repair, and for repair of any other facility, structure or surface that is likely to be damaged in quantity during construction. 4. The construction approach will minimize the time that any one segment is under construction or roadway/walkway left un-repaired to reduce the construction impact, done by limiting the length of open trench to 100 m or less.	**Yes partially**, Minimized the time and length (100 m) that a segment of excavation is open 2. Temporary bridging or tape barriers at trench entrances to residences and businesses installed.	Absent fences of construction areas and post signs to prohibit public access. After providing NCL were corrected by the contractor Photo 10	

	5. The public will be barred from construction areas, and excavations will be fenced, and sign posted. Workers should not be allowed to enter trenches deeper than waist height unless they are properly shored.			
Trees that need to but to accommodate pipelines either in private or public land	1. Fell trees and re-plant them within the vicinity of the pipeline so as to cause minimal impact. When this is not possible, the Contractor shall discuss with CEP alternative locations for the re-planting of the trees. 2. Where trees will be cut, they shall be replaced on a 1:3 basis. The replaced trees shall be the same as the trees cut. The Contractor will be responsible for maintaining the trees for a six-month period. If any of the trees die within this period, the Contractor will replace the tree on a 1:1 basis.	**Yes**, During the reporting period, no trees were cut down. The contractor will obtain cutting permission as required.		

5. SUMMARY AND RECOMMENDATIONS

55. The environmental management team for the implementation of environmental safeguards requirements is almost established by all parties, except Contractor.

56. GRM is established, no complaints received within this reporting period.

57. Subproject CW-AF-04 Rehabilitation of Sewerage network for Karotegin and Zebunisso. Lot 1: Rehabilitation of Sewerage network Karotegin and Lot 2: Rehabilitation of Sewerage network Zebunisso were awarded to Consortium OJSC “TajikSGEM”, LLC “AZkompozit” and LLC “Story-Center” construction works commenced in April 2023.

58. Subproject CW-AF-05 “Detailed design and Construction of Woman Training Center” awarded to Consortium LLC “Story-Center” and LLC “GM and Partners”. No construction works in subproject have started in the reporting period.