

# Rehabilitation of Damaged Water Supply and Drainage Schemes of District Sanghar, Sindh



## ENVIRONMENTAL AND SOCIAL SCREENING REPORT (ESSR)



**Final Report**  
**October, 2023**



**SINDH FLOOD EMERGENCY REHABILITATION PROJECT  
(SFERP)**

**PLANNING & DEVELOPMENT DEPARTMENT (P&DD) COMPONENT**  
**GOVERNMENT OF SINDH**



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## DOCUMENT ISSUE AND REVISION RECORD

This document and its contents have been prepared and intended solely for the information and use of the Government of Sindh, Project Implementation Unit (PIU) concerning the **SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)**

### Document Information

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<b>Proponent</b>	<b>Project Implementation Unit (PIU), Government of Sindh</b>
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ESSR for Rehabilitation of Damage Water Supply and Drainage Schemes of District Sanghar	01	01	31-10-2023	PIU	14-11-2023	-
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**Note:** The template of ESSR & E&S Checklist for one District i.e., Larkana is approved by the World Bank. As per the directions of WB on dated 12<sup>th</sup> April, 2023, the document is reviewed by the E&S team of PIU and submitted to WB team for record and post review purpose.

## Table of Contents

<b>1</b>	<b>SFERP PROJECT DESCRIPTION .....</b>	<b>ERROR! BOOKMARK NOT DEFINED.</b>
1.1	SUB-PROJECT DESCRIPTION.....	1
1.2	SUB-PROJECTS INFORMATION .....	14
1.2.1	Brief introduction to the sub-project, its geographical location, components, and benefits. ....	14
1.2.2	Details about existing conditions of the area/facility and proposed scope of rehabilitation works. ....	15
1.2.3	Socio-Economic Condition of the Sub-Project Area .....	16
1.2.4	Explain, whether this is purely rehabilitation of existing facilities or will involve any new works .....	17
1.2.5	Are consultations with stakeholders conducted? .....	17
1.2.6	Will this sub-project involve any ancillary impact/ activity away from the work site? .....	17
1.2.7	Timeframe for starting and completion of sub-project .....	17
1.2.8	Drainage and Water Supply Schemes Design and Demand details.....	17
1.2.9	Would rehabilitation works done by considering the climate resilient factor?.....	23
1.2.10	Scenario if there are any alternative designs options of sub-project.....	23
<b>2</b>	<b>ENVIRONMENTAL AND SOCIAL SCREENING TOOLS .....</b>	<b>25</b>
2.1	ENVIRONMENTAL AND SOCIAL MANAGEMENT SCREENING.....	25
<b>3</b>	<b>STAKEHOLDER CONSULTATION .....</b>	<b>37</b>
3.1	COMMUNITY CONCERNS.....	39
3.2	INSTITUTIONAL CONSULTATION .....	41
<b>4</b>	<b>ENVIRONMENTAL AND SOCIAL MANAGEMENT &amp; MONITORING PLAN.....</b>	<b>44</b>
<b>5</b>	<b>PICTORIAL PROFILE OF PROJECT SITES .....</b>	<b>51</b>
5.1	AMMANULLAH DHARI RURAL WATER SUPPLY SCHEME, TALUKA SHAHDADPUR, DISTRICT SANGHAR	51
5.2	BERANI URBAN WATER SUPPLY SCHEME, TALUKA JAM NAWAZ ALI, DISTRICT SANGHAR .....	51
5.3	CHAK NO. 5 & 8 RURAL WATER SUPPLY SCHEME, TALUKA SANGHAR, DISTRICT SANGHAR.....	51
5.4	GUJRI RURAL WATER SUPPLY SCHEME, TALUKA SANGHAR, DISTRICT SANGHAR .....	52
5.5	URBAN DRAINAGE SYSTEM, TALUKA KHIPRO, DISTRICT SANGHAR .....	52
5.6	SHAHADADPUR URBAN DRAINAGE SCHEME, TALUKA SHAHDADPUR, DISTRICT SANGHAR .....	52
<b>6</b>	<b>ENVIRONMENTAL AND SOCIAL IMPLEMENTATION BUDGET.....</b>	<b>89</b>
<b>7</b>	<b>OPERATION AND MAINTENANCE (O&amp;M) .....</b>	<b>92</b>
7.1	KEY ASPECTS OF O&M FOR WSS AND DRAINAGE SYSTEMS:.....	92
7.1.1	Operation: .....	92
7.1.2	Maintenance.....	92
7.1.3	Emergency Response.....	93
7.1.4	Water Conservation .....	93
7.1.5	Data Management .....	93
7.1.6	Documentation and Handover .....	93

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7.1.7	Facilities Management.....	93
7.1.8	Staffing and Training.....	94
7.1.9	Preventive Maintenance.....	94
7.1.10	Repairs and Corrective Maintenance.....	94
7.1.11	Safety and Compliance .....	94
7.1.12	Energy Efficiency and Sustainability.....	94
7.1.13	Asset Management.....	94
7.1.14	Stakeholder Communication.....	94
7.1.15	Continuous Improvement .....	94
7.1.16	Cleaning and maintenance of solar system.....	95
7.1.17	Regular maintenance and monitoring of Hypo-chlorinator .....	95
7.1.18	PHED Responsibility.....	95
<b>7.2</b>	<b>KEY BENEFITS OF EFFECTIVE O&amp;M OF WSS AND DRAINAGE SYSTEMS.....</b>	<b>96</b>

### **List of Tables**

<b>Table 1: Details of Equipment/Machineries and Manpower for Rehabilitation Works .....</b>	<b>18</b>
<b>Table 2: Population Size and Wastewater Generation of District Sanghar Drainage Schemes....</b>	<b>19</b>
<b>Table 3: Population Size and Water Supply Demand of District Sanghar Water Supply Schemes .....</b>	<b>20</b>
<b>Table 4: Environmental and Social Screening Checklist.....</b>	<b>25</b>
<b>Table 5: List of Stakeholders Consulted for Water Supply and Drainage Schemes of Sanghar ..</b>	<b>37</b>
<b>Table 6: Summary of Concerns Raised By Institutional Stakeholders.....</b>	<b>41</b>
<b>Table 6: Environmental and Social Management and Monitoring Plan (ESMMP) .....</b>	<b>44</b>
<b>Table 8: Environmental Compliance Cost of District Sanghar.....</b>	<b>90</b>

### **List of Figures**

<b>Figure 1: Study Area Map of District Sanghar Water Supply and Drainage Schemes.....</b>	<b>3</b>
<b>Figure 2 Stakeholders Consultation.....</b>	<b>41</b>
<b>Figure 3 Institutional Consultation.....</b>	<b>43</b>

### **List of Annexures**

<b>Annexure 1: Environmental &amp; Social Screening Checklist of All Schemes of District Sanghar...</b>	<b>98</b>
<b>Annexure 2: Design Drawings of Water Supply Schemes &amp; Drainage.....</b>	<b>201</b>
<b>Annexure 3: Attendance Sheets of Water Supply and Drainage Schemes of District Sanghar ..</b>	<b>226</b>

# 1 PROJECT BACKGROUND

The Federal Government of Pakistan requested the global community and development partners for assistance to respond to the flood disaster following the Flood 2022 emergency. Subsequently, the World Bank (WB) task team visited the province and had a series of meetings with the provincial Govt. During the discussions held with the WB Mission, a two-pronged strategy was agreed i.e.

- Restoration/Rehabilitation of Rural (Farm to Market) Roads in affected districts, talukas and UCs.
- Restoration of water supply, drainage and sanitation schemes in affected districts, Talukas and Union Councils.
- Provision of immediate financial assistance, cash for work is proposed to rehabilitate small community structures like rural roads, watersheds, watercourse (s) to carry irrigation water to Farm(s), Rehabilitation of village streets and restoration of village sanitation work including removal of stagnant water in villages. The exact number to be arrived at after assessment.
- Expansion of the Emergency Rescue Service (Sindh Emergency Rescue Services-1122) to 13 districts i.e., Jamshoro, Dadu, Sajawal, Badin, Qambar Shehdadkot, Shikarpur, Jacobabad, Thatta, Ghotki, Naushehro Feroz/Matiari, Umerkot, Sanghar and Shikarpur. Establishment of Satellite Rescue Station at Motorway and National Highways (N-5 & N-55) The Provincial Government has already launched Sindh Emergency Rescue 1122 in Six Districts HQs – Karachi, Hyderabad, Mirpurkhas, Shaheed Benazirabad, Sukkur, and Larkana.

## 1.1 Project Components

The proposed Sindh Flood Emergency Rehabilitation Project – SFERP falls into four main components.

- Component--1 Infrastructure Rehabilitation:
- Component--2 Livelihoods Restoration
- Component--3 Institutional Strengthening for Resilience and Technical Assistance
- Component--4 Project Management and Operational Cost

## 1.2 The Proposed Sub-Project

The proposed project under Flood 2022 Emergency Response is a sub-component that will support the rehabilitation and reconstruction of the flood-affected water supply and drainage schemes to improve health & hygiene of local communities by providing safe drinking water with uninterrupted supply. The location map of subproject is given in **Figure 1** and the details of the subproject sites are given below;

## 1.3 Sub-Project Description

In District Sanghar, there are a total of 34 schemes, comprising 06 drainage schemes and 28 water supply schemes.

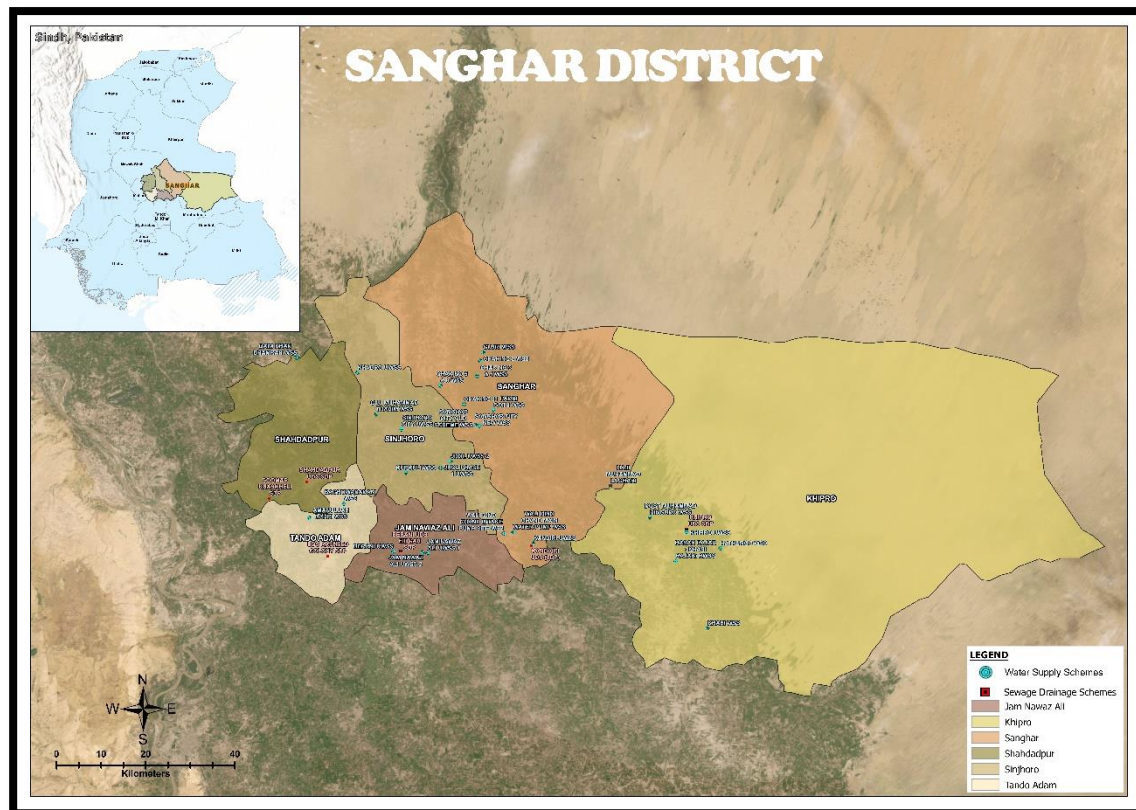
<b>Project description</b>	The sub-component “rehabilitation of water supply and drainage schemes” will rehabilitate the selected and prioritized water supply infrastructure that has been destroyed or damaged by the floods. The primary objective of this project is to evaluate the condition of water supply and drainage schemes, which includes assessing filtration techniques, piping, water quality, efficiency and adequacy of equipment, population coverage, and technology employed. This assessment will encompass a comprehensive study of network elements such as pumps, tanks, pipe
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	<p>materials, as well as parameters like diameters, flow rates, and the overall functionality of water supply and drainage systems constructed.</p> <p>The subproject schemes are located in Sanghar District of Sindh, Pakistan. The main aim of the said project is to rehabilitate existing sources of water supply and drainage facilities for the flood effected people in District Sanghar.</p>
<b>Environmental and Social Settings</b>	<p>The subproject land is owned by the Government. The proposed activities are the rehabilitation and restoration of damage water supply schemes and drainage facilities. These schemes are the properties of the Government body. There are no major environmental and social impacts of the project activities to the vicinity of the subproject areas. There are no water bodies within the sub-project sites. The subproject rehabilitation activities will not affect any flora, fauna and natural habitat of the area. There are few trees in the vicinity of the proposed subproject areas which will not be disturbed during the rehabilitation works. The environmental and social impacts will be kept at minimum by ensuring the mitigation measures and continuous monitoring. All measures will be planned, organized and implemented which are vital for health and safety of the workers. Instrumental Environmental Testing will be conducted on key parameters like air quality, water quality and noise level determination. Local flora is important to provide shelters for the birds, offer fruits and/or timber/fire wood, protect soil erosion and overall keep the environment very friendly to human living. As such cutting/chopping of flora will not be anticipated. Plantation has been proposed after the completion of the proposed subproject to enhance the aesthetic beauty of the project vicinity. No sub-projects related socioeconomic issues have been recorded during the baseline surveys of the sub-projects. Community and project beneficiaries are very much enthusiastic about the early rehabilitation and completion of the sub-projects. Settlements, including built-up areas such as homes, shops, mosques, graveyards, healthcare facilities and schools are located around sub-project schemes. Community is settled in villages which are actual project beneficiaries. No natural water spring is found in the proposed sub-project area. The site wise detailed of environmental and social setting of the proposed area are presented in the section 1.1.2.</p>
<b>Project Activities/ Scope of Work</b>	<p><b>Proposed Rehabilitation of Damaged Infrastructures of Water Supply Schemes (WSS)</b></p> <ul style="list-style-type: none"> <li>- Rehabilitation of Tube wells</li> <li>- Rehabilitation of Pumping Machinery i.e., Submersible Pumps, Centrifugal Pumps,</li> <li>- Rehabilitation of Solar System</li> <li>- Rehabilitation of Storage Tanks</li> <li>- Rehabilitation of Low Surface Reservoirs (LSRs)</li> <li>- Rehabilitation of Distribution Network i.e., Pipe network</li> <li>- Rehabilitation of Pumping Stations/Buildings</li> <li>- Rehabilitation and improvement of Electric and mechanical works transmission</li> <li>- Provision and installation of disinfection system i.e., hypo-chlorinator equipment</li> </ul> <p><b>Rehabilitation of Damaged Infrastructures of Drainage Schemes</b></p> <ul style="list-style-type: none"> <li>- Rehabilitation of Street drains</li> <li>- Rehabilitation of Pumping Machinery i.e., sludge Pumps, Motors</li> </ul>

- Installation of Solar System for alternative power supply
- Rehabilitation of Screening Chambers
- Rehabilitation of Collecting Tanks
- Rehabilitation of Drainage Pumping Station Building
- Rehabilitation and enhancement of existing Electric system with automation Work
- Rehabilitation of Rising Main network to dispose of the drainage

**Proposed Date of Commencement of Work:**

The Rehabilitation of water supplies and drainage activities will be started in November, 2023 after completion of pre-requisite requirements.



**Figure 1: Study Area Map of District Sanghar Water Supply and Drainage Schemes**

#### 1.4 Scheme Wise E&S Setting:

No.	Schemes	Coordinates	Site Description
<b>A Taluka Sanghar Water Supply Schemes</b>			
1	Wali Dino Chand Water Supply Scheme	24°38'09.2"N 69°02'28.0"E	The proposed Scheme is situated in District Sanghar, with convenient access via National Highway (N5) and further via Tando Adam-Mirpurkhas road on the right side. The total number of household and population is 229 and 1600 respectively. The locality is

No.	Schemes	Coordinates	Site Description
			surrounded by residential settlements and agricultural activities. Notable landmarks include BHU Bassi, located at a distance of 101 meters. A canal is flowing on eastern side at a distance of 1.9km away.
2	Padri Goth Water Supply Scheme	26° 4'7.35"N 68°59'27.39"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Chotiari road on the right side while moving from Sanghar to Padri Goth. The household and population are 263 and 1840 respectively. The area is surrounded by the human settlement and agricultural fields. There is only one religious facility i.e., St. Isidore Church located at a distance of 204 m away from proposed subproject site.
3	Gujri Water Supply Scheme	26° 11'7.69"N 68°58'12.67"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Sanghar road on the right side while moving from Sanghar to Gujri Goth. The household and population are 1459 and 10210 respectively. The area is surrounded by the human settlement with some commercial activities and agricultural fields. There are some educational, healthcare and religious facilities around subproject site i.e., BHU Gujri located at a distance of 87 m away, Gujri School 412 m away and Jamia Masjid Gujri 451 m away from proposed subproject site.
4	Chak No-11 Water Supply Scheme	26° 4'50.92"N 68°55'54.54"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Sanghar road on the right side while moving from Sanghar to Deh 11. The household and population are 623 and 4360 respectively. The area is surrounded by the human settlement with some commercial activities and agricultural fields. There are no social sensitive receptors except Alshahbaz Model High School at a distance of 747 m from proposed subproject site. A waterbody, Herri Distributary is flowing on eastern side at a distance of 623m.

No.	Schemes	Coordinates	Site Description
5	Chak No-2 Water Supply Scheme	26°10'5.99"N 68°57'50.10"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Sanghar road on the right side while moving from Sanghar to Chak No. 2. The household and population are 571 and 4000 respectively. The area is surrounded by the agricultural fields and human settlements 470m away. There are no social sensitive receptors around proposed subproject site. A waterbody, Nara Canal is flowing on eastern side at a distance of 2.5 km and a wetland complex Chotiari Reserve is 3 km away.
6	Chak N- 3&4 Water Supply Scheme	26° 8'14.91"N 68°57'29.39"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Sanghar road on the left side while moving from Sanghar to Chak No. 3 & 4. The household and population are 454 and 3180 respectively. The area is surrounded by the agricultural fields and human settlements. There are no social sensitive receptors around proposed subproject site, the nearest settlement is 130 m away from proposed subproject site. A canal is flowing on western side at a distance of 1.3 km whereas, Nara Canal and wetland complex Chotiari Reserve is 5.1 km away.
7	Chak No-5&8 Water Supply Scheme	26° 7'5.29"N 68°53'2.63"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and further via Sanghar road on the right side while moving from Sanghar to Chak No. 5 & 8. The household and population are 739 and 5170 respectively. The area is surrounded by the agricultural fields and human settlements with commercial activities. There are a few educational and religious facilities around proposed subproject site i.e., Govt. Girls High school and Govt. High School Chak No. 5 at a distance of 617 m and 900 m respectively whereas, Jamia Masjid Chak No. 5 is 561 m. A canal is flowing on southern side at a distance of 2.2 km.
8	Sanghar Urban Water Supply Scheme	26° 2'13.01"N 68°57'45.78"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar Bypass road further via Dalel Shar Road on the left side



No.	Schemes	Coordinates	Site Description
			while moving from Sanghar city to Khan Colony, Sanghar. The household and population are 5024 and 35170 respectively. The area is surrounded by human settlements with commercial activities and agricultural areas. There are a few educational and healthcare facilities around proposed subproject site i.e., SEF School PPRS-4559 Chandu Oad at a distance of 453 m and Radhe Sham Lab is 1.1 km.
9	Sanghar city old scheme	26° 2'22.36"N 68°57'21.20"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Chotairion road and further via Dalel Shar Road on the left side while moving from Sanghar city to Khan Colony, Sanghar. The household and population are 714 and 5000 respectively. The area is surrounded by human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., City Model School and Iqra Girls Primary School at a distance of 375 m and 461 m respectively. Whereas, Civil Hospital Sanghar is 1.23 km.
10	Kandairi Urban Water Supply Scheme	25°48'2.95"N 69° 4'17.95"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar-Mirpurkhas Road on the right side while moving from Sanghar city to Kandiyari City, Sanghar. The household and population are 2397 and 16780 respectively. The area is surrounded by human settlements with commercial activities and agricultural areas. There are a few educational and healthcare facilities around proposed subproject site i.e., Govt. Boys Higher Secondary School at a distance of 194 m and a Rural Health Center Kandiyari at a distance of 295 m. A canal, Ban Waah is flowing on eastern side at a distance of 152 m.
<b>B Taluka Jam Nawaz Ali Water Supply Schemes</b>			
11	Birani Urban Water Supply Scheme	25°47'2.91"N 68°47'22.05"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Tando Adam-Beerani Link Road on the right side while moving from Sanghar city to Kandiyari City, Sanghar. The

No.	Schemes	Coordinates	Site Description
			household and population are 1577 and 11040 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities at some distance. There are a few educational and healthcare facilities around proposed subproject site i.e., GBHSS Berani and GBPS Urdu Berani at a distance of 1.5 Km and 1.6 km whereas, Mother and Child Health Care Hospital Berani is at a distance of 2.2 km.
12	Jam Nawaz Ali Urban Water Supply Scheme -1	25°46'50.01"N 68°51'29.53"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Tando Adam-Mirpurkhas Link Road on the right side while moving from Tando adam city to Beerani City, Sanghar. The household and population are 717 and 5020 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Govt Boys Primary (Sindhi Main) School and Govt Girls Primary School Jam Nawaz Ali at a distance of 99 m and 558 m whereas, Rural Health Center Jam Nawaz Ali is at a distance of 251m. A canal is flowing on western side at a distance of 1.3km.
13	Jam Nawaz Ali Urban Water Supply Scheme -2	25°46'58.98"N 68°50'55.01"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Tando Adam-Mirpurkhas Link Road on the right side while moving from Tando adam city to Beerani City, Sanghar. The household and population are 324 and 2266 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., GCT Hilal School Jam Nawaz Ali - 156 and Govt Girls Primary School Jam Nawaz Ali at a distance of 755 m and 796 m whereas, Rural Health Center Jam Nawaz Ali is at a distance of 896 m. A canal is flowing on western side at a distance of 430m.
<b>C Taluka Shahdad Pur Water Supply Scheme</b>			

No.	Schemes	Coordinates	Site Description
14	Daim Khan Dhamrah Water Supply Scheme	26°10'27.20"N 68°35'43.36"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Nawabshah-Sanghar Road on the right side while moving from Shahpur Chakar city to Gupchani City, Sanghar. The household and population are 171 and 1200 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Govt Primary School at a distance of 699 m whereas, a hospital, Sana Madical Center is at a distance of 2.2 km. A canal is flowing on Southwestern side at a distance of 1.4km.
15	Amanullah Dahri Water Supply Scheme	25°51'6.72"N 68°37'14.24"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Shahdadpur-tandoadam Road on the left side while moving from Tando Adam to Shahdadpur. The household and population are 197 and 1380 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are no social sensitive receptors around proposed project area. A natural lake is flowing on eastern side at a distance of 729mwhereas, a canal is flowing on western side at a distance of 2.24 km.
<b>D Taluka Tando Adam Water Supply Scheme</b>			
16	Bagowadadani Water Supply Scheme	25°52'49.29"N 68°41'23.12"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Shahdadpur-Berani Road and Tando Adam- Jhol Road on the right side while moving from Tando Adam to Shahdadpur. The household and population are 564 and 3950 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are no social sensitive receptors in the immediate surrounding of proposed project area. Two canals are flowing on southern side at a distance of 113 m and 567 m respectively.
<b>E Taluka Sinjhor Water Supply Scheme</b>			

No.	Schemes	Coordinates	Site Description
17	Sinjhoro City Urban Water Supply Scheme	26° 1'47.92"N 68°48'21.28"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sinjhoro-Khadro Road on the left side while moving towards Sinjhoro City. The household and population are 2034 and 14240 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Govt Girls high school Sinjhoro and Govt. Boys Higher Secondary School at a distance of 132 m and 150 m respectively. Whereas, Taluka Hospital Sinjhoro is at a distance of 1.1 km. A canal is flowing on northwestern side at a distance of 870 m.
18	Khadro Urban Water Supply Scheme	26° 8'39.77"N 68°43'2.29"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Nawabshah-Sanghar Road on the right side while moving towards Khadro City. The household and population are 1890 and 13230 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., SEF SCHOOL PPRS-803203 Ideal Public School and Govt. Boys High School Khadro at a distance of 79 m and 750 m respectively. Whereas, BHU khadro is at a distance of 941 m. A canal is flowing on western side at a distance of 850 m.
19	Gul Muhammad Thahim Water Supply Scheme	26° 3'36.73"N 68°45'16.44"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Khadro Road on the right side while moving from Sinjhoro City to Gul Muhammad Thahim Goth. The household and population are 403 and 2823 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are no social sensitive receptors around proposed project site except an educational facility i.e., Madarsa ali ulmortaza at a distance of 304 m.
20	Kurkuli Water Supply Scheme	25°56'32.25"N 68°48'53.01"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar-Shahdadpur Road

No.	Schemes	Coordinates	Site Description
			on the left side while moving from Shahdadpur towards Kurkali Village. The household and population are 571 and 4000 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational facilities around proposed subproject site i.e., Indus Educational Academy kurkali and Government girls Elementary School at a distance of 99 m and 381 m respectively.
21	Urban Supply Jhol-I Water Scheme	25°57'8.85"N 68°53'4.15"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar-Shahdadpur Road on the right side while moving from Shahdadpur towards Jhol city. The household and population are 1403 and 9820 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Government boys' higher secondary school Jhole and SEF SCHOOL EX-254 Rabia Public School at a distance of 601 m and 732 m respectively. Whereas, RHC Jhol Hospital is at a distance of 281m.
22	Urban Supply Jhol-II Water Scheme	25°57'55.62"N 68°54'18.15"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar-Shahdadpur Road on the right side while moving from Shahdadpur towards Jhol city. The household and population are 1,466 and 10265 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are no social sensitive receptors around proposed project site.
<b>F Taluka Khipro Water Supply Schemes</b>			
23	Urban Supply Khipro Water Scheme	25°49'26.19"N 69°22'47.11"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar and Mirpurkhas Road on the right side while moving towards Khipro city. The household and population are 3,694 and 25860 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There

No.	Schemes	Coordinates	Site Description
			are a few educational and healthcare facilities around proposed subproject site i.e., Iqra Primary School for Boys and Government Boys High school Khipro at a distance of 438 m and 557 m respectively. Whereas, BHU Bhit bhaiti and Government Civil Hospital Taluka Khipro is at a distance of 322 m and 672 m respectively.
24	Dost Muhammad Hingoro Water Supply Scheme	25°51'9.34"N 69°18'21.28"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar Road on the left side while moving from Khipro city to Loon khan Village. The household and population are 489 and 3420 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., GBPS Loon Khan at a distance of 550 m. A canal is flowing on southwestern side at a distance of 1.3 km.
25	Haji Muhammad Laghari Water Supply Scheme	25°54'59.16"N 69°13'35.72"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Ghulam Haider Faqeer Road on the left side while moving from Loon khan Village to Haji Muhammad Laghari Goth. The household and population are 357 and 2500 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational facilities around proposed subproject site i.e., Government Middle School Haji Abdullah Khan Laghari and Govt Girls Primary School Haji Ismail Laghari at a distance of 44 m and 642m.
26	Hathungo Water Supply Scheme	25°47'26.11"N 69°26'52.58"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Hathonga Road on the left side while moving from Khipro City to Hatomga city. The household and population are 1529 and 10700 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Mehfooz Children Academy and Government High

No.	Schemes	Coordinates	Site Description
			School at a distance of 697 m and 1.1 km. Whereas, Hithongo Govt. Hospital is at a distance of 1.4 km. Nara Canal is flowing at a distance of 282 m.
27	Khahi Water Supply Scheme	25°37'46.92"N 69°25'20.42"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Mirpurkhas Road on the left side while moving from Khipro City to Khahi Village. The household and population are 521 and 3650 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Government higher secondary school khahi and Ideal Public School khahi at a distance of 167 m and 360 m respectively. Whereas, Ayan Zeb Panhwer Medical Store and clinic is at a distance of 554 m.
28	Haji Hussain Rajar/Khani Rajar Water Supply Scheme	25°45'54.82"N 69°21'28.14"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and link Road on the right side while moving from Khipro City to Hussain Rajar Village. The household and population are 443 and 3100 respectively. The area is surrounded by agricultural fields and human settlements. There is no social sensitive receptor around proposed subproject site.
<b>G Taluka Sanghar Drainage Schemes</b>			
29	Kandairi Urban Drainage Scheme	25°47'47.51"N 69° 4'2.54"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar-Mirpurkhas Road on the right side while moving from Sanghar city to Kandairi City, Sanghar. The household and population are 201 and 1406 respectively. The area is surrounded by human settlements with commercial activities and agricultural areas. There are a few educational and healthcare facilities around proposed subproject site i.e., Government Boys Higher Secondary School Kandairi at a distance of 450 m and a Rural Health Center Kandairi District Sanghar at a distance of 377 m. A canal, Ban Waah is flowing on eastern side at a distance of 581 m.



No.	Schemes	Coordinates	Site Description
<b>H Taluka Jam Nawaz Ali Drainage Scheme</b>			
30	Birani Urban Drainage Scheme	25°47'9.35"N 68°48'15.72"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Tando Adam-Beerani Link Road on the right side while moving from Sanghar city to Kandhari City, Sanghar. The household and population are 1577 and 11040 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Govt Boys Primary and High School and GBPS Urdu Berani at a distance of 69 m and 196 m whereas, Mother and Child Health Care Hospital Berani is at a distance of 751 m.
<b>I Taluka Shahdad Pur Drainage Schemes</b>			
31	Shahdad Pur Urban Drainage Scheme	25°55'28.88"N 68°36'55.75"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and hala-Shahdadpur Road and Maldasi Road on the right side while moving towards Shahdadpur City, Sanghar. The household and population are 7248 and 50738 respectively. The area is surrounded by human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., The City Grammar H/S School Shahdadpur and Government Boys High School Shahdadpur (Lal Bagh) at a distance of 29 m and 313 m whereas, Government Taluka Hospital Shahdadpur is at a distance of 317 m.
<b>J Taluka Tando Adam Drainage Scheme</b>			
32	Tando Adam Rasheed Colony UDS	25°46'30.41"N 68°39'27.49"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Tando Adam- N5 Road on the right side while moving towards Tando Adam City, Sanghar. The household and population are 1633 and 11430 respectively. The area is surrounded by human settlements with commercial activities and agricultural lands. There are a few educational and healthcare facilities around proposed subproject site i.e., Hadeeqat Ul Ilm Islamic

No.	Schemes	Coordinates	Site Description
			High School and Ghot ESO shajany School at a distance of 77 m and 254 m whereas, THQ Tandoadam is at a distance of 1.8 km.
33	Soomar Khash kheli Drainage Scheme	25°53'28.03"N 68°32'22.29"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Hala-Shahdadpur Road on the left side while moving towards Sahahdadpur, Sanghar. The household and population are 229 and 1605 respectively. The area is surrounded by human settlements and agricultural lands. There are no social sensitive receptors around proposed subproject site. Rohri Canal is flowing eastern side at a distance of 43 m.
<b>K Taluka Khipro Drainage Schemes</b>			
34	Urban Drainage Scheme Khipro	25°49'48.89"N 69°22'48.35"E	The proposed scheme is situated in District Sanghar, it can be easily accessible by National Highway (N5) and Sanghar and Mirpurkhas Road on the right side while moving towards Khipro city. The household and population are 1339 and 9370 respectively. The area is surrounded by agricultural fields and human settlements with commercial activities. There are a few educational and healthcare facilities around proposed subproject site i.e., Government Boys High school Khipro at a distance of 278 m. Whereas, Government Civil Hospital Taluka Khipro is at a distance of 174 m.

## 1.5 Sub-Projects Information

### 1.5.1 Brief introduction to the sub-project, its geographical location, components, and benefits.

The subproject sites are situated in District Sanghar, Sindh, within the Government territory, specifically under the jurisdiction of the Public Health Engineering Department (PHED). The district has six Talukas; Jam Nawaz Ali Taluka, Khipro Taluka, Sanghar Taluka, Shahdadpur Taluka, Sinjhor Taluka, and Tando Adam Taluka. The aim is to rehabilitate and restore the water supply and drainage systems that were damaged or destroyed during the floods in 2022. These efforts will prioritize the selected water supply infrastructure, ensuring its recovery. Currently, the community in District Sanghar has been suffering from a lack of safe drinking water and living in unhygienic conditions due to inadequate collection and treatment of storm water, which has led to the complete destruction of the drainage system.

The proposed subproject intends to address these issues by rehabilitating the water supply and drainage schemes to a resilient level. This will guarantee a continuous provision of safe drinking water to the community, while also ensuring the proper collection, treatment, and disposal of storm water in an

environmentally friendly manner. The primary source of drinking water in the district is underground and surface water both. The water is extracted from underground or nearby canals using pumps and stored in Low Surface Reservoirs (LSRs) before being distributed to the community. The drinking and wastewater will undergo analysis in a recommended laboratory, and precautionary measures will be taken based on the results. surface water in the form of canals are available in some areas/schemes covered by the subproject.

Overall, the proposed project aims to create a healthier environment in the area and uplift the socioeconomic conditions of the residents by providing them with safe water, sanitation facilities and employment opportunities for the locals.

### **1.5.2 Details about existing conditions of the area/facility and proposed scope of rehabilitation works.**

The water supply and drainage schemes were not up to mark as almost all structures have been damaged by flood, 2022. The tube wells, pumping stations, distribution network and LSRs have been badly affected. As a result of which, the people of District Sanghar are facing scarcity of safe drinking water. Comprehensive surveys have been conducted by the expert to monitor the sites and assessed the damages and restoration of infrastructures. Rehabilitation of damaged infrastructure will provide the capacity and efficiency for uninterrupted safe drinking water supply to the community.

Currently, community of District Sanghar is living in unhygienic condition as drainage system has been broken-down and blocked in flood, 2022. The sewage disposal ponds (SDPs) including pumping stations and drainage network have also been affected. The damages have been assessed through proper survey and rehabilitation work is being made part of Sub-projects PC-1 of District.

The flood damaged the Water Supply and Drainage Schemes which affected the community. The community has been deprived by drinking water facility. Due to broken lines and blockages in the drainage lines wastewater stagnate in the area after rain causes disturbance to the residents. The stagnant water provides breeding grounds to mosquitoes and flies which serve as vector of many diseases in the area. At some places, water supply lines are passing beside the storm water drains which also affect the quality of drinking water. Due to unavailability or insufficient supply of water, community have to fetch water from far flung areas and from pumping stations which creates social stress. Security and privacy of the local people has been disturbed as well. There is a need to rehabilitate the existing damaged water supply and drainage structures in order to resolve the socioeconomic issues of the sub project area. The sub-project areas are located in different areas of District Sanghar, the schemes and systems are operated under the Government territory. The activity involves in the subproject is restoration and rehabilitation of damaged Water Supply and Drainage Schemes of District Sanghar.

#### **i. Flora of Sub-Project Area**

Some of the common flora of the district observed during survey includes are babul or gum Arabic (*Acacia nilotica*), mulberry (*Morus alba*), neem (*Melia azadirach*), kono or Ethiopian teak (*Conocarpus lancifolius*), sufaida (*Eucalyptus camaldulensis*), jungle jalebee or monkey pod (*Pithecolobium dulce*), chimkani or amaltas (*Cassia fistula*), bulrush (*Typha latifolia*), and common reed (*Phragmites karka*).



Wheat, cotton, rice, sugarcane, rapeseed and mustard, jowar, bajra, maize, sesanum, arhar, sunflower, guar seed, maash, moong, soyabean, linseed, and sunflower are some of the crops of the district.

## ii. Fauna of the Sub-Project Area

Some of the important mammals observed during survey were palm squirrels, mongoose, bats, and rats, except these only domesticated animals were noticed.

Avifauna of the proposed sub-project areas were egret, grey partridges, pigeon, dove, parakeet, kingfisher, bee-eater, herons.

### 1.5.3 Socio-Economic Condition of the Sub-Project Area

The total population of the district Sanghar is 2,057,000 persons with 47% literacy rate<sup>1</sup>. Majority of the population of the district is Muslim (79.2%). The culture life of the Muslims is greatly influenced by the Islamic way of life. After Muslims, Hindus also hold great confidence in Thakurs and Brahmans. The languages mostly spoken in District are Sindhi, Punjabi, and Urdu. Whereas, Pashto, Sraiki and Balochi are also less spoken languages. However, Urdu is understood amongst all the population of district. The economy of Sanghar is mainly based on Agriculture with its allied Livestock Breeding & Fishing (56.5%), Elementary Occupations (25.7%), Service Workers & Market/Shop Sales Workers (7.8%), Other (10%). There are 2 Industrial Estates in Sanghar district: one is at Tando Adam and the other is in Sanghar. Both of these houses a number of industries, most of which are agro-based and include: cattle and poultry feed, light engineering workshop, milk plant, oil expelling units, flour mills, rice husking, steel door and window manufacturing, food industry, and agricultural accessories. Major industries in the district Sanghar are Sugar Mills, Flour Mills, Cotton Factory, and Safety Matches<sup>2</sup>.

<sup>1</sup> <https://www.pbs.gov.pk/census-2017-district-wise/results/101>

<sup>2</sup> <https://pakistanalmanac.com/sindh-sanghar/#1633497127938-b1d45416-be12>

#### 1.5.4 Explain, whether this is purely rehabilitation of existing facilities or will involve any new works

The subproject involves rehabilitation of damaged Drainage and Water Supply Schemes of the existing utilities which are being operated by the PHED. No new work is involved under sub-project scope.

#### 1.5.5 Are consultations with stakeholders conducted?

The social and environmental specialist of construction supervisory consultation-CSC held series of consultation meetings with the local community and relevant stakeholders, residents of the sub-project areas in September, 2023. The field team visited the nearby communities briefed salient features of the sub-projects to get the views of the communities who could be affected and beneficiaries. Social Sensitive Receptors like religious structures (mosques, shrines and graveyards), basic/rural health units (BHU/RHU), hospitals, schools, cultural and archeological etc. were observed during the survey and consultation in the sub-project areas. The indirect impacts on the receptors have been evaluated at 200 meters' buffer zone of the proposed sub-project sites. Most of the social receptors are located in an urban settlement and far away from proposed sub-project sites hence would not be affected by project activities. The community was very blissful by the rehabilitation work carried out by the involvement of the Govt. of Sindh. They appreciated for taking up the initiative of rehabilitation and restoration of damaged water supply and drainage schemes. The team assured that all the concerns raised by them would be addressed. Mitigation measures will be proposed to minimize the impacts during rehabilitation activities. According to the community, the rehabilitation works would provide them safe and sufficient drinking water and ensure safe disposal of wastewater. The detailed concerns of community are described in the section 3 of this ESSR.

The damaged utilities are owned by the PHED of District Sanghar. Consultation with Line Department have also been completed. The subprojects were installed in Government owned land and no additional land will be acquired for rehabilitating the sub-projects.

#### 1.5.6 Will this sub-project involve any ancillary impact/ activity away from the work site?

There is no secondary impact in the sub-project areas. All the impacts are minor, temporary and site specific during the rehabilitation/restoration phase. The project falls under the category C which creates minor or low environmental impacts limited to rehabilitation/restoration phase.

#### 1.5.7 Timeframe for starting and completion of sub-project

The subproject will be started in November, 2023 and will be completed in March, 2025.

#### 1.5.8 Drainage and Water Supply Schemes Design and Demand details

The main rehabilitation or restoration components of water supply schemes are transmission main, low surface reservoir tanks (LSR), existing water storage reservoirs, pump house, staff quarters, water filtration tanks, alternate energy source i.e. (solar system) and compounds walls. The drainage schemes include the rehabilitation of collection drains, screening chambers, collecting tanks, pumping machinery, and drainage disposal pipes.

The capacities of these structures have been designed with respect to population sizes including future growth pattern and water demand & supply of proposed subproject areas. The drawings and typical cross sections of components are provided in **Annexure-2**. However, the current and future drainage generation capacities and water supply demand are given in **Table-2** and **Table-3**.

The tentative details of major equipment, machineries and manpower that will be utilized for upgrading existing structures during rehabilitation works are given below (**Table-1**) However, exact number and quantities will be finalized at the stage of engaging contractors for bids based on the volume of work.

**Table 1: Details of Equipment/Machineries and Manpower for Rehabilitation Works**

<b>Equipment/Machineries</b>	<b>Quantity</b>	<b>Manpower</b>
Small Concrete Mixers	02	<b>Skilled:</b>
Generators	01	Mason, Steel Fixer, Plumber, Electrician,
Dewatering Pumps	02	Carpenter, Machine Operators etc.
Excavators	01	<b>Unskilled:</b>
Dumpers	02	Labors, Security Guards etc.
Tractor Trolley	02	
Bowser	01	

**Table 2: Population Size and Wastewater Generation of District Sanghar Drainage Schemes**

Description	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	GPCD	GPD	Person	GPCD	GPD	Person	GPCD	GPD
<b>Improvement &amp; Extension for Drainage Schemes at Various Taluka's of District Sanghar</b>									
<b>B. Taluka Sanghar Drainage Schemes</b>									
Kandairi Urban Drainage Scheme	14,603	8.8	128506.4	15,119	8.8	133043.5	23,328	8.8	205283.5
<b>D. Taluka Jam Nawaz Ali Drainage Scheme</b>									
Birani Urban Drainage Scheme	11,040	8.8	97152	11,430	8.8	100582.1	17,636	8.8	155196.2
<b>F. Taluka Shahdad Pur Drainage Schemes</b>									
Shahdad Pur Urban Drainage Scheme	50,738	8.8	446494.4	52,529	8.8	462258.4	81,052	8.8	713255.8
<b>H. Taluka Tando Adam Drainage Scheme</b>									
Tando Adam Rasheed Colony UDS	11,430	8.8	100584	11,834	8.8	104135.2	18,259	8.8	160678.7
Soomar Khashkheli Drainage Scheme	1,605	8.8	14124	1,662	8.8	14622.7	2,564	8.8	22562.5
<b>K. Taluka Khipro Drainage Schemes</b>									
Urban Drainage Scheme Khipro	9,370	8.8	82456	9,701	8.8	85367	14,968	8.8	131720



**Table 3: Population Size and Water Supply Demand of District Sanghar Water Supply Schemes**

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Sanghar</b>									
<b>A. Taluka Sanghar Water Supply Schemes</b>									
Wali Dino Chand Water Supply Scheme	1,600	11	17600.0	1,656	11	18221.4	2,556	11	28115.3
Padri Goth Water Supply Scheme	1,840	11	20240.0	1,905	11	20954.6	2,939	11	32332.5
Gujri Water Supply Scheme	10,210	11	112310.0	10,570	11	116275.2	16,310	11	179410.4
Chak No-11 Water Supply Scheme	4,360	11	47960.0	4,514	11	49653.3	6,965	11	76614.1
Chak No-2 Water Supply Scheme	4,000	11	44000.0	4,141	11	45553.5	6,390	11	70288.1
Chak N- 3&4 Water Supply Scheme	3,180	11	34980.0	3,292	11	36215.0	5,080	11	55879.1
Chak No-5&8 Water Supply Scheme	5,170	11	56870.0	5,353	11	58877.9	8,259	11	90847.4
Sanghar Urban Water Supply Scheme	35,170	11	386870.0	36,412	11	400528.9	56,183	11	618008.3
Kandairi Urban Water Supply Scheme	16,780	11	184580.0	17,372	11	191096.8	26,805	11	294858.7
Urban Water Supply Scheme Jhol-I	9,820	11	108020.0	10,167	11	111833.8	15,687	11	172557.3

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Sanghar</b>									
Urban Water Supply Scheme Jhol-II	10,265	11	112915.0	10,627	11	116901.6	16,398	11	180376.9
<b>C. Taluka Jam Nawaz Ali Water Supply Schemes</b>									
Birani Urban Water Supply Scheme	11,040	11	121440.0	11,430	11	125727.6	17,636	11	193995.2
Jam Nawaz Ali Urban Water Supply Scheme -1	5,020	11	55220.0	5,197	11	57169.6	8,019	11	88211.6
Jam Nawaz Ali Urban Water Supply Scheme -2	2,266	11	24926.0	2,346	11	25806.0	3,620	11	39818.2
<b>E. Taluka Shahdad Pur Water Supply Scheme</b>									
Daim Khan Dhamrah Water Supply Scheme	960	11	10560.0	994	11	10932.8	1,534	11	16869.2
Amanullah Dahri Water Supply Scheme	1,380	11	15180.0	1,429	11	15715.9	2,204	11	24249.4
<b>G. Taluka Tando Adam Water Supply Scheme</b>									
Bagowadadani Water Supply Scheme	3,950	11	43450.0	4,089	11	44984.1	6,310	11	69409.5
<b>I. Taluka Sinjhoru Water Supply Scheme</b>									
Sinjhoru City Urban Water Supply Scheme	14,240	11	156640.0	14,743	11	162170.4	22,748	11	250225.7

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Sanghar</b>									
Khadro Urban Water Supply Scheme	13,230	11	145530.0	13,697	11	150668.1	21,134	11	232478.0
Gul Muhammad Thahim Water Supply Scheme	2,823	11	31053.0	2,923	11	32149.4	4,510	11	49605.8
Kurkuli Water Supply Scheme	4,000	11	44000.0	4,141	11	45553.5	6,390	11	70288.1
<b>J. Taluka Khipro Water Supply Schemes</b>									
Urban Water Supply Scheme Khipro	25,860	11	284460.0	26,773	11	294503.2	41,310	11	454412.7
Dost Muhammad Hingoro Water Supply Scheme	3,420	11	37620.0	3,541	11	38948.2	5,463	11	60096.3
Haji Muhammad Laghari Water Supply Scheme	2,500	11	27500.0	2,588	11	28470.9	3,994	11	43930.1
Hathungo Water Supply Scheme	10,700	11	117700.0	11,078	11	121855.5	17,093	11	188020.7
Khahi Water Supply Scheme	3,650	11	40150.0	3,779	11	41567.5	5,831	11	64137.9
Haji Hussain Rajar/Khani Rajar Water Supply Scheme	3,100	11	34100.0	3,209	11	35303.9	4,952	11	54473.3

### 1.5.9 Would rehabilitation works done by considering the climate resilient factor?

The restoration and rehabilitation efforts prioritize climate resilience to enhance structural durability. To ensure this, civil works have been designed based on engineering design standards and ACI codes. The main goal of the subproject is to enhance resilience through a "build back better" approach. Key elements, like the pump house and compound walls, are designed with free board to withstand floods by raising them above flood levels. To address electricity shortages in remote Sindh areas, a resilient solar power system will be mounted on elevated structures to protect against flood damage. Additionally, the use of HDPE material for the rising main ensures long-term viability.

### 1.5.10 Scenario if there are any alternative designs options of sub-project

Here are some alternative approaches considered earlier for water supply and drainage systems but not opted for because the scope of proposed project which is to rehabilitate the existing water supply and drainage network infrastructure. On the other hand, these options require high maintenance, less cost effective and not feasible in the current scenario.

**Rainwater Harvesting:** Implementing rainwater harvesting techniques can help collect and store rainwater for later use. This alternative reduces the reliance on underground sources and provides a sustainable water supply.

**Grey water Recycling:** Instead of disposing of grey water from sinks, showers, and washing machines, it can be treated and reused for non-potable purposes such as toilet flushing or irrigation. This approach reduces the strain on freshwater resources and promotes water conservation.

**Decentralized Water Treatment Systems:** Instead of relying on a centralized water treatment plant, decentralized systems can be established at the community level. These systems utilize small-scale treatment methods such as filtration, disinfection, and purification to provide safe drinking water to local residents.

**Sustainable Drainage Systems (SDS):** SDS employ environmentally friendly techniques to manage storm water runoff. This includes features like permeable pavements, green roofs, and rain gardens that help absorb and filter rainwater, reducing the burden on drainage systems and preventing flooding.

**Water Efficiency Measures:** Promoting water-efficient practices and technologies, such as low-flow fixtures, dual-flush toilets, and water-efficient appliances, can significantly reduce water consumption in households, industries, and public facilities.

**Desalination:** In areas where freshwater resources are scarce, desalination plants can be utilized to convert brackish water into potable water. Although this option requires substantial investment and energy, it provides an alternative water source for regions facing severe water shortages.

**Water Reuse and Reclamation:** Implementing advanced water treatment processes can enable the reuse of treated wastewater for various non-potable applications, such as irrigation, industrial processes, and groundwater replenishment. This approach reduces the demand for freshwater resources.

**Aquifer Recharge:** Managed aquifer recharge involves intentionally infiltrating excess surface water into underground aquifers, replenishing depleted groundwater resources. This technique helps to stabilize water levels and improve the sustainability of water supply systems.

**Community-Based Water Systems:** Engaging local communities in the planning, implementation, and maintenance of water supply and drainage systems can foster a sense of ownership and ensure sustainability. This approach empowers communities to take responsibility for their water resources.

**Integrated Water Management:** Adopting a holistic approach that considers the entire water cycle, including water supply, wastewater treatment, storm-water management, and water conservation, can lead to more efficient and sustainable water management practices.

It's important to assess the specific conditions, needs, and feasibility of each alternative before implementing them in a particular project or region.

## 2 ENVIRONMENTAL AND SOCIAL SCREENING TOOLS

### 2.1 Environmental and Social Management Screening

<b>Project Area</b>	Sanghar District of Sindh, Pakistan
<b>Project Title</b>	Sindh Flood Emergency Rehabilitation Program (SFERP), P&DD Component, Sindh
<b>Sub-project Title</b>	Rehabilitation of Damaged Water Supply and Drainage Schemes of District Sanghar

**Table 4: Environmental and Social Screening Checklist**

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
A. Project Siting								
1	Adjacent to or within any environmentally sensitive areas like Archeological/Cultural heritage site, Protected Forests, Wetlands, Wildlife Sanctuaries, Game Reserves etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No environmental sensitive or cultural heritage site is in the vicinity of these project areas.
2	Adjacent to or within any Buffer zone of protected area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No buffer zone viz. a sanctuary, forest, national park, in its immediate surroundings. A few wild vegetation and trees were found in and outside of the proposed boundaries but will not be disturbed during the project activities.
3	Are there any potential pollution sources in water supply network?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, there are few potential pollution sources in the water supply network due to no maintenance and flood affects like damages to the existing infrastructure as the structures are old and material of existing structure could not stand with flood. The construction work will solely focus on rehabilitation and improvement of the existing system.

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
4	Are there any potential sources that can damage drainage network? Or Is it affected by flood?	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Natural disasters like flood and intensification in the urban population are the main factors for the destruction of existing drainage network. The scope of the proposed schemes is to rehabilitate the existing drainage network to resist with floods and cater the demands properly.
5	Is there a possibility that the project will adversely affect the local landscape?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local landscape will not be affected by the subproject activities because it doesn't involve establishing of new infrastructure.
6	Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The project sites or discharge areas are not located in protected areas designated by the country's laws or any international treaties and conventions.
<b>B. Potential Impacts at Construction Phase</b>								
7	Will construction camp site cause land clearing and tree be cutting?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No construction camp will be constructed; existing built-in structures will be utilized as camp site. Also, it will not cause any land clearing and tree cutting activity as the subproject activities will involve upgrading existing structures.
8	Will construction works create any disturbance/ hindrance/obstruction for public movement/access?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>No such issue of mobility/accessibility issues will be caused during the sub-project development. Few vehicles on specific timings will be used during construction work which will not increase traffic on road.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>• Reduce traffic speeds on all unpaved surfaces to 15 km/ hour or less.</li> <li>• Contractor will strictly implement speed limits and defensive driving policies.</li> <li>• Traffic control will be maintained work sites.</li> <li>• Contractor machinery and equipment will not hamper the traffic at main road and sites.</li> </ul>



S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Necessary training, information will be provided to the workers regarding traffic rules.</li> </ul>
9	Is there any sensitive receptor (school, mosque, health unit, community very close to the scheme) that will be impacted due to construction activities?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Some social sensitive receptors might be affected indirectly due to dust, noise or construction vehicles movements but suggested mitigations will reduce it effects.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>GRM must be communicated to the internal staff and the general public. Community grievances will be recorded and responded to on an urgent basis.</li> <li>Provision of proper safety and diversion signage, particularly at socially sensitive receptors areas;</li> <li>Ensure the placement of a proper sign board that the site is restricted from the entry of irrelevant people particularly children;</li> <li>Timely public notification on planned construction works should be communicated to the communities;</li> <li>Setting up speed limits in close consultation with the traffic police with luminescence sign boards.</li> </ul>
10	Will construction activities require tree cutting?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No such activity will be done and if needed then for every tree that needs to be cut down, five saplings of approved tree species will be planted, emphasizing reforestation and the replenishment of tree cover.
11	Will construction activities result in damaging existing local roads, bridges or other infrastructure?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The Sub-project activities do not involve damage to any nearby and existing road, bridge and any other infrastructure. The rehabilitation activities are limited to the demarcated boundary of existing facilities of WS & DS.
12	Will construction activities generate noise?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	Yes, noise will be generated from various sources such as plumbing, drilling, generators, rehabilitation activities and vehicular movements that will be

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<p>limited to the proposed boundary of the sub-project and nearby community will not be affected.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The contractors would ensure keeping noise levels from construction vehicles and machinery to be within safe limits.</li> <li>Construction activities will not be allowed at nighttime.</li> <li>Noisy machines and vehicles will not be allowed to be used at the sub project sites (noise level will not be more than 85 dBA at 7.5 m distance), properly tuned machinery and vehicles will be allowed only.</li> <li>Workers will use noise protection equipment when working in a noisy area.</li> <li>Notifying and coordinating with locals adjacent to project area prior to construction to inform them of the possibility of temporary noise disruption, and how to report noise complaints in accordance with the proposed GRM.</li> </ul> <p>The contractor will adhere to the requirements of the mitigation plan contained in the contract documents with true spirit and regular monitored as per SEQs.</p>
13	Will construction activities generate dust?	√	□	□	√	□	□	<p>There will be construction vehicles and machines which may generate dust emissions. The machinery used in rehabilitation work will be tractors and trolleys for fetching material.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Regular water sprinkling will be the responsibility of the contractor at the dust generation points during construction activities. Water will also be sprinkled at vehicular and machinery movement routes and sensitive receptor's location to avoid dust spreading to the nearby community.</li> <li>Necessary PPE i.e., face mask will be provided to workers.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Contractor will ensure that dust emissions due to vehicular traffic are minimized by reducing the speed.</li> <li>Well maintained and tuned vehicles will be used for the transportation and disposal of material.</li> </ul>
14	Will construction activities cause air pollution due to stack emissions from generators, construction machines and vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>The activities include rehabilitation of damaged water and drainage schemes in which air pollution at minor extent during the rehabilitation work will be caused.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The emissions from generators, (if used) and vehicular/machinery movement at the site can affect the ambient air quality at sub project sites. It will be the responsibility of the contractor to use well maintained generators and vehicles/machines to keep ambient air quality within the desired level. The contractor will be obliged to provide fitness certificate/maintenance records of the generators, vehicles and machines before deploying them at the construction sites.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
15	Will construction activities cause soil pollution?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>During construction work, various mitigation measures can be employed to address soil pollution.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Implementing barriers and containment systems to prevent the spread of pollutants from construction sites to surrounding soil.</li> <li>Ensuring proper disposal of construction waste, including hazardous materials, to prevent soil contamination. This involves following appropriate waste management procedures and regulations.</li> <li>Implementing spill prevention measures and having protocols in place to quickly respond to any accidental spills of chemicals or pollutants that could contaminate the soil.</li> <li>Contaminated soil management: If contaminated soil is encountered during construction, proper management procedures would be followed, including containment, removal, and disposal in accordance with local regulations.</li> <li>Regular monitoring: Conducting regular soil quality monitoring throughout the construction process to detect any signs of pollution and take corrective actions promptly.</li> <li>Providing training to construction personnel regarding the importance of soil protection and pollution prevention measures to ensure their active participation in maintaining a pollution-free construction site.</li> </ul> <p>By implementing these mitigation measures, construction activities can minimize soil pollution and contribute to environmental sustainability.</p>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
16	Will construction activities generate construction debris?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, as the sub-project will involve civil works for the development of Water Supply and Drainage Schemes, which may generate a very small quantity of construction debris.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The debris (rejected material) and WS&amp;DS broken materials produced during construction would be disposed-off in Government approved/allocated disposal sites by engaging third party which is certified from SEPA. Leftover material would not be dumped into storm water drains or watercourses, because such practices can clog these man-made and natural drainage systems and cause many other problems for the residents/Local Commuters.</li> </ul>
17	Will construction activities generate hazardous solid waste?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No hazardous waste will be generated during construction phase of the project.
18	Will construction take place near to water bodies? Or cause contamination of the surface water resources	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, there are a few water supply schemes that are near to surface water bodies like canals. The potential impacts of water pollution during the construction can be minimized, helping to protect water resources and aquatic ecosystems in the surrounding area.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Contractor must provide the following facilities at each campsite: Latrines; lined washing areas; septic tanks, and soaking pits for toilet waste.</li> <li>Soak pits will be built in absorbent soil and located 250 m away from a surface water source or groundwater well.</li> <li>Diesel, oil, and lubricants should be properly stored following petroleum regulations. This will be the responsibility of the contractor.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;</li> <li>Conduct surface water quality inspection according to the Environmental and Social Management and Monitoring Plan while adhering to SEQS 2016 and WHO standards.</li> </ul>
19	Will construction activities take place near wastewater/ storm water drains and how quality of wastewater will be ensured?	√	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the sub-projects are rehabilitation of water supply and drainage schemes but it will upgrade or restore the existing structures. Wastewater quality analysis will be performed complaint to SEQS 2016 so that contamination or exceedances could be monitored.
20	Will construction activities result in damaging or relocating the utilities at site like electricity, gas, telecommunication etc.?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Neither relocation nor destruction of utilities will be involved in the construction scope. However, the sub-project scope is already restoration and rehabilitation of WS&DS of the proposed subproject area.
21	Will construction activities involve excavation?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>The excavation will be done for the foundation works of pump house, disposal stations/drainage works, boundary walls, collecting tanks and screening chambers.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The excavation will be done carefully to avoid the damages.</li> <li>Excavation area will be barricaded.</li> <li>Contractor will use safety signs to warn and aware the local people during construction activities.</li> <li>Contractor will be ensured availability of adequate Personal Protective Equipment (PPE) at the sub-project sites.</li> <li>Risk assessment will be carried out by contractor before initiation of excavation work.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>The contractor will ensure that all workers on site will be properly trained and certified to handle an excavation machine.</li> </ul>
22	Will construction involve heavy machinery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, despite few machines like excavators will be used for the civil works on need basis; however, the contractor will ensure safety precautions during construction phase of the sub-projects.
23	Will construction activities/machines be the safety hazards for the workers or any anticipated OHS impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, Occupational Health &amp; Safety issues are anticipated from the proposed rehabilitation work and mitigation measures have been proposed below. Risk can occur from machinery usage, vehicles, and civil work activities. General occupational hazards that may be encountered (e.g., moving machinery and motorized equipment, working at heights, repetitive motions, falling of objects, injuries etc.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Ensure and strictly implement the SOPs regarding communicable diseases including daily body temperature check, PPEs, emergency response, and drills.</li> <li>Unauthorized personnel will not be allowed to enter project site without permission and safety permits.</li> <li>Assess the hazards associated with the required works and prepare and follow the safety procedures required for the specific works such as electrical works and works at height.</li> <li>Provision of first aid facilities for workers at site for meeting the emergency needs of workers, and providing basic medical training to specified work staff and basic medical service and supplies to workers.</li> <li>Observe and maintain standards of Health and Safety towards all employees in line with WB EHS Guidelines along with Sindh Occupational Health and Safety Law.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Contractor will install safety signs and markings to demarcate the construction zone.</li> <li>Contractor will ensure provision of controlled access points for the prevention of an unauthorized access to the site.</li> <li>The Contractor will maintain a record of the persons who enter or exit from the sub-project site.</li> </ul>
<b>C. Potential Social Impacts During Design and Construction</b>								
24	Will involuntary resettlement cause by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There will be no involuntary resettlement because sub-project sites are located in Government own land.
25	Will there a possibility that the project adversely affects the living conditions of inhabitants?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed subproject will positively impact inhabitants and improve their social wellbeing. There is no possibility that the project will adversely affect the living conditions of inhabitants.
26	Will the construction cause any labor issues such as labor living and working conditions?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Labor condition or rights related issues will be complied such as working hours, leaves, benefits, wages, and other related facilities like provision of foods, clean water, transportation etc. However, no labor camps are anticipated as it involves small scale activities which doesn't involve any living conditions.</p> <p><b>Mitigation Measures:</b></p> <p>The Workers' Grievance Redress Mechanism (GRM) will be developed and communicated among workers to lodge complains.</p> <p>Workers should be provided with clean drinking water for free.</p>



S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
27	Will construction activities cause community Health and Safety issues? Or any other such impacts.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>No such impacts are anticipated, though following will be applicable to the project activities.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>• GRM must be communicated to the general public.</li> <li>• Close consultation with local communities to identify optimal solutions where needed. Community grievances will be recorded and responded to on an urgent basis.</li> <li>• Contractor shall give preference to local community members in subproject areas, to the extent feasible, with respect to the employment of unskilled labor.</li> <li>• No Hazardous and non-hazardous waste will be dumped outside any community.</li> <li>• There should be sufficient signage to warn of dangers and hazards on a construction or worksite. Signs should be clear and accompanied by ropes, cones, and other equipment to cordon off dangerous areas.</li> <li>• Conduct worksite inspections daily to identify any potential dangers or hazards. Dangers and hazards should be cordoned off immediately.</li> </ul>
28	Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local Stakeholders have been consulted and their comments mentioned in stakeholders' consultation have been noted which will be addressed with true spirit during construction phase.

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
29	Will the construction activities cause the socio- cultural issues or conflicts among workers and communities?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Contractor should take proper measures and raise awareness among the communities and workers to address and resolve issues relating to harassment, intimidation (particularly those related to issues of labor influx), and exploitation, especially against women.</li> <li>Measures to prevent Gender based violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) the Contractor must include relevant clauses in the workers' code of conduct.</li> <li>Workers should not be allowed to crowd in the residential communities nearby the site.</li> </ul>
30	Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	Yes, as the security guards will be deployed at subproject sites and they are not allowed to move outside or provide entrance to anybody without permission of the site engineer.
31	NR: Not Relevant 1. No or Minor Impact 2. Moderate, Short Term, Reversible Impact 3. Severe, Long Term, Irreversible Impact							
	<b>Category</b>				A		B	C
	<b>Environmental Management Required</b>				N/A		N/A	√
	<b>Type of Environmental Management Tool to be Used</b>				<b>Social and Environmental Screening Checklist</b>			

### 3 STAKEHOLDER CONSULTATION

Stakeholder consultation during a construction project is crucial for ensuring transparency, addressing concerns, and promoting collaborative decision-making.

**Table 5: List of Stakeholders Consulted for Water Supply and Drainage Schemes of Sanghar**

No.	Schemes	Coordinates	Name of the Goth/Community	Date of Consultation
<b>A Taluka Sanghar Water Supply Schemes</b>				
1	Wali Dino Chand Water Supply Scheme	24°38'09.2"N 69°02'28.0"E	Basi Goth	2/9/2023
2	Padri Goth Water Supply Scheme	26° 4'7.35"N 68°59'27.39"E	Padri Goth	2/9/2023
3	Gujri Water Supply Scheme	26°11'7.69"N 68°58'12.67"E	Gujri Chak No. 1 Pathan	2/9/2023
4	Chak No-11 Water Supply Scheme	26° 4'50.92"N 68°55'54.54"E	Deh 11	2/9/2023
5	Chak No-2 Water Supply Scheme	26°10'5.99"N 68°57'50.10"E	Chak No. 2	2/9/2023
6	Chak N- 3&4 Water Supply Scheme	26° 8'14.91"N 68°57'29.39"E	Mangli Goth	4/9/2023
7	Chak No-5&8 Water Supply Scheme	26° 7'5.29"N 68°53'2.63"E	Chak No. 5	4/9/2023
8	Sanghar Urban Water Supply Scheme	26° 2'13.01"N 68°57'45.78"E	Khan Colony	4/9/2023
9	Sanghar city old scheme	26° 2'22.36"N 68°57'21.20"E	Shahmir Panhwer Colony	4/9/2023
10	Kandairi Urban Water Supply Scheme	25°48'2.95"N 69° 4'17.95"E	Main Bazar Kandairi	4/9/2023
<b>B Taluka Jam Nawaz Ali Water Supply Schemes</b>				
11	Birani Urban Water Supply Scheme	25°47'2.91"N 68°47'22.05"E	Beerani Goth	5/9/2023
12	Jam Nawaz Ali Urban Water Supply Scheme -1	25°46'50.01"N 68°51'29.53"E	Jam Nawaz Ali Goth	5/9/2023
13	Jam Nawaz Ali Urban Water Supply Scheme -2	25°46'58.98"N 68°50'55.01"E	Jam Nawaz Ali Goth	5/9/2023
<b>C Taluka Shahdad Pur Water Supply Scheme</b>				
14	Daim Khan Dhamrah Water Supply Scheme	26°10'27.20"N 68°35'43.36"E	Goth Jan Mohammad	6/9/2023
15	Amanullah Dahri Water Supply Scheme	25°51'6.72"N 68°37'14.24"E	Dahiri Goth	6/9/2023
<b>D Taluka Tando Adam Water Supply Scheme</b>				
16	Bagowadadani Water Supply Scheme	25°52'49.29"N 68°41'23.12"E	Goth Bago Wadadadani	7/9/2023

No.	Schemes	Coordinates	Name of the Goth/Community	Date of Consultation
<b>E</b>	<b>Taluka Sinjhor Water Supply Scheme</b>			
17	Sinjhor City Urban Water Supply Scheme	26° 1'47.92"N 68°48'21.28"E	Mohulla ward 4 Goth Rukan Burura	21/8/2023
18	Khadro Urban Water Supply Scheme	26° 8'39.77"N 68°43'2.29"E	Gulshah Mohulla	9/9/2023
19	Gul Muhammad Thahim Water Supply Scheme	26° 3'36.73"N 68°45'16.44"E	Gul Muhammad Thahim Goth	9/9/2023
20	Kurkuli Water Supply Scheme	25°56'32.25"N 68°48'53.01"E	Meenhal wassan, Goth Kurkali	10/9/2023
21	Urban Water Supply Scheme Jhol-I	25°57'8.85"N 68°53'4.15"E	Ansari Chowk, Jhol	10/9/2023
22	Urban Water Supply Scheme Jhol-II	25°57'55.62"N 68°54'18.15"E	Goth Muhammad Khan Marri	10/9/2023
<b>F</b>	<b>Taluka Khipro Water Supply Schemes</b>			
23	Urban Water Supply Scheme Khipro	25°49'26.19"N 69°22'47.11"E	Uc Roonjho, Khipro	11/9/2023
24	Dost Muhammad Hingoro Water Supply Scheme	25°51'9.34"N 69°18'21.28"E	Goth Loon Khan	11/9/2023
25	Haji Muhammad Laghari Water Supply Scheme	25°54'59.16"N 69°13'35.72"E	Goth Haji Abdullah Khan Laghari	11/9/2023
26	Hathungo Water Supply Scheme	25°47'26.11"N 69°26'52.58"E	Village Ghazi Khan Rd Hathongo	12/9/2023
27	Khahi Water Supply Scheme	25°37'46.92"N 69°25'20.42"E	Khahi Goth	12/9/2023
28	Haji Hussain Rajar/Khani Rajar Water Supply Scheme	25°45'54.82"N 69°21'28.14"E	Rajar Goth	12/9/2023
<b>G</b>	<b>Taluka Sanghar Drainage Schemes</b>			
29	Kandairi Urban Drainage Scheme	25°47'47.51"N 69° 4'2.54"E	Main Bazar, Kandairi	21/8/2023
<b>H</b>	<b>Taluka Jam Nawaz Ali Drainage Scheme</b>			
30	Birani Urban Drainage Scheme	25°47'9.35"N 68°48'15.72"E	Nabi Bux Khaskheli Muhalla	5/9/2023
<b>I</b>	<b>Taluka Shahdad Pur Drainage Schemes</b>			
31	Shahdad Pur Urban Drainage Scheme	25°55'28.88"N 68°36'55.75"E	Janipura Colony	6/9/2023
<b>J</b>	<b>Taluka Tando Adam Drainage Scheme</b>			
32	Tando Adam Rasheed Colony UDS	25°46'30.41"N 68°39'27.49"E	Rasheed Colony	7/9/2023
33	Soomar Khash kheli Drainage Scheme	25°53'28.03"N 68°32'22.29"E	Soomar Khaskheli Goth	7/9/2023
<b>K</b>	<b>Taluka Khipro Drainage Schemes</b>			
34	Urban Drainage Scheme Khipro	25°49'48.89"N 69°22'48.35"E	Gareebabad, Khipro	11/9/2023

### 3.1 Community Concerns

Comments /Observations	Action /Response
Discussion regarding the importance and usefulness of rehabilitation of water supplies and drainage schemes was held.	The participants were briefed that the proposed Water Supply & Drainage Schemes will provide safe drinking water and updated drainage system which will uplift the socio-economic condition of the areas.
Community members showed concerns about the overall impact of the water supply and drainage schemes on public health and sanitation.	Community was explained the positive health outcomes associated with improved access to clean water, proper sanitation facilities, and effective drainage systems. Any specific health concerns raised by the community and outline measures taken to ensure public safety will be addressed properly.
Community members were asked about the problems and issues they had faced after flood or during monsoon season.	They informed the team that there is serious load shedding issue in the area which is a major cause of destruction of current water supply and drainage system. Pumps and rising mains issues must be resolved as well as cleaning of drains must be done on usual basis. Solar panels are installed but most of them are out of order due to lack of maintenance issue.
Stakeholders/ Local Community members asked about the operations of Water Supply & Drainage Schemes.	The team responded that safe drinking water will be provided to the community without any interruption and storm water will be disposed of in safe manners.
Local Community inquired about the project execution and its completion.	The technical team replied that the project will be commenced in October, 2023 and will be completed in April, 2025. The rehabilitation work will be limited to the existing facilities of the proposed project area and it will be completed in 18 months.
The community urged to provide of semi-skilled and unskilled jobs for local labor.	Unskilled jobs will be given to local's people where possible.
In the sub-project area, women fetch water from a distance of 2-4 km. After completing their morning chores, some of them also bring their livestock to the watercourses for drinking. Some community members showed their reservation that privacy of the local communities might not be compromised.	It was explained that local labor will be hired to execute the project and all employees will be trained to take care of local norms/culture and privacy of people. No interaction of labor with women and children would be happened.
Community members showed reservation about the long-term maintenance and sustainability of the water supply and drainage schemes.	Community was apprised about that PHED is overseeing the project, the Department will ensure operation and maintenance plans, and any measures taken to ensure the infrastructure's long-term viability. All the Schemes under rehabilitation have operational staff hired by the GoS.
Community also raised concerns about the construction activities associated with water supply and drainage schemes can cause disruptions to daily life, including noise, dust, traffic congestion, and temporary service interruptions.	Community was assured that these disruptions will be minimized to the extent possible, provide a clear timeline of the construction activities, and communicate any alternative arrangements made to mitigate inconveniences.



Comments /Observations	Action /Response
Community had reservations about the proper maintenance of rehabilitated system and no availability of resources.	Community was informed that after rehabilitation works the system will be handed over to PHED who do proper maintenance and resource utilization.
Community requested to conduct a comprehensive needs assessment to understand the water supply and drainage network gaps and challenges faced by the community.	Community was intimated that the proposed subproject is going to be implemented after the detailed need assessment and damages caused by flood.
 <p data-bbox="140 943 751 1025"><b>Goth alam Baloch, Taluka Tandoadam, District sanghar</b></p>	 <p data-bbox="826 943 1433 1025"><b>Goth loon khan, Taluka Khipro, District Sanghar</b></p>
 <p data-bbox="140 1480 751 1563"><b>Goth Muhammad Khan Mari, District Sanghar</b></p>	 <p data-bbox="826 1480 1433 1563"><b>Goth Rukan Burura, Taluka Sinjhora, District Sanghar</b></p>
	 <p data-bbox="826 2011 1433 2045"><b>Mangli Goth, Taluka Sanghar, District Sanghar</b></p>


Comments /Observations	Action /Response
<b>Nabi Bux Khaskheli Muhalla, Taluka Jam Nawaz Ali</b>	
	
<b>Dahiri Goth, Taluka Shahdampur, District Sanghar</b>	<b>Village Hathongo, Taluka Khipro, District Sanghar</b>

Figure 2 Stakeholders Consultation

### 3.2 Institutional Consultation

The Environment and Social team of consultant conducted consultations with concerned Government Department in September, 2023. The team briefed the officers of Government Departments regarding the salient features of the proposed sub-projects. It was informed that the “Detailed Design of the Project, under PIU-SFERP-P&DD being implemented and funded by the World Bank. They were informed that the project intends to rehabilitate the damaged Water Supply and Drainage Schemes destroyed in flood 2022. The primary goal of the project is to meet the present and future requirements regarding provision of safe drinking water and drainage system. It was also briefed that the project will bring positive impacts on the lives of the local population.

According to the officials, the rehabilitation/restoration of the proposed Schemes will be beneficial for the residents of the project regions. The officials expressed their support for the planned project during the

Sr. No	Department
1.	XEN PHED Department
2.	Deputy Director SEPA
3.	Representative of Municipal Administrator

meeting and assured their full cooperation as a Line Department.

**Table 6: Summary of Concerns Raised By Institutional Stakeholders**

Comments/Observations	Actions/ Responses
The majority of the stakeholders showed positive attitudes toward the rehabilitation of water supply and drainage schemes.	In general, the participants were in favor of the project and agreed that it is greatly needed because Water Supply and Drainage Schemes have been dilapidated in devastated floods 2022.



<i>Comments/Observations</i>	<i>Actions/ Responses</i>
Detailed discussions were held regarding the environmental and social issues of the area due to proposed rehabilitation activity.	The project will not cast adverse impact on population, flora and fauna of the area. The project lies in Govt. owned land and no major social and environmental issues are anticipated during construction phase of the project. However, mitigation measures will be proposed to combat environmental degradation.
The stakeholders suggested that the establishment of the proposed project would uplift the socio-economic condition of the community in the project areas.	The team acknowledged and responded that the proposed Water Supply and Drainage Schemes will be beneficial for community residing in the area. The living standard of the community would be elevated after rehabilitation of the schemes.
The stakeholders suggested that care must be given to protect fauna and flora during the construction phase.	The plantation would be undertaken with the preference of local species; no exotic species will be promoted. No cutting of trees will be involved during the execution of the project activities. Plantation activity will be done around the boundary wall to enhance aesthetic beauty of the project area. It will be monitored to cut minimum number of trees. At few sites, trees will be cut or chopped and 1:10 trees will be planted in compensation and the Line Department would be responsible for caring the newly planted trees after construction phase.
The Stakeholder shows their concern regarding the impacts during the construction stage on waste management and land acquisition	Social and environmental teams briefed about the mitigation measures will be adopted to control dust, noise, health, and safety issues. Excess material will be removed and flattened. There are no issues regarding land acquisition, the land is vacant and owned by the Government. If the issues occur, then these matters will be dealt with Revenue Department.
The stakeholders suggested to engage local people during project activities and considering the women privacy that not be affected.	The teams responded that locals will be considered during construction activities while during operation priority will be given to the locals if not available then will be sourced from other regions. There are no settlements near the proposed projects, therefore, conflicts with the community and women are not expected. It was assured that norms, ethics and traditions of community will not be disturbed.



<i>Comments/Observations</i>	<i>Actions/ Responses</i>
 <p>09-Apr-2023 11:10</p>	
 <p>01-Jun-2023 10:28</p>	 <p>01-Jun-2023 10:28</p>

**Figure 3 Institutional Consultation**

## 4 ENVIRONMENTAL AND SOCIAL MANAGEMENT & MONITORING PLAN

The purpose of the ESMMP for the rehabilitation works is to ensure that all necessary identified measures should be adopted during construction and operation phase for all schemes to protect the environment and social situations and to comply with the country's environmental and social legislation and applicable World Bank standards. After the preparation of ESMF, PIU has outlined site-specific EMP for the Contractors and executing agency.

**Table 7: Environmental and Social Management and Monitoring Plan (ESMMP)**

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
1.	Land Use	<b>Construction Phase</b> Civil Works  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- The work will be carried out in the land of PHED which comprised of rehabilitation work only.</li> <li>- No need to clear land or cutting of trees is envisaged.</li> </ul>	NA	None
2.	Dust Emission	<b>Construction Phase</b> Movement of construction vehicles.  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- Water will be sprinkled daily or when as required to avoid the dust emission near proposed project vicinity.</li> <li>- For dust control, cordon off the construction area through dust control net.</li> </ul>	Daily during Construction Phase	<b>Construction phase</b> Contractor
3.	Noise Emission	<b>Construction Phase</b> Construction Equipment, Generator, Vehicle Movement  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- Proper design, maintenance and repair of construction machinery and equipment will be ensured.</li> </ul>	Twice a month during Construction Phase	<b>Construction phase</b> Contractor

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
4.	<b>Water Management</b>	<p><b>Construction Phase</b></p> <p>Construction activities Water sprinkling for dust minimization</p> <p><b>Operation Phase</b></p> <p>Supply of water and maintaining its quality will be managed by the PHED</p>	<ul style="list-style-type: none"> <li>- Contractor will handle and manage waste generated from the construction activities without contamination to natural environment/water bodies and it will reduce risk to general public who stay close to sites.</li> <li>- Water contamination during construction will be avoided through proper disinfection.</li> <li>- Excess use of water will be avoided and monitored in routine basis.</li> <li>- Water Tankers/water bowsers and bore water will be proposed for the utilization of water during project activities.</li> <li>- Clean and safe drinking water will be provided to the workers during working hours.</li> </ul>	<ul style="list-style-type: none"> <li>- Daily during Construction Phase</li> <li>- Water quality analysis at the beginning and end of construction phase</li> </ul>	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>
5.	<b>Ecological Impact</b>	<p><b>Construction Phase</b></p> <p>Construction activities Clearance of top Soil No habitat loss No tree cutting at site</p> <p><b>Operation Phase</b></p> <p>None</p>	<ul style="list-style-type: none"> <li>- As the subproject develops, plantation must be done in and around the subproject vicinity as a CSR.</li> </ul>	None	None

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
6.	<b>Solid Waste Management</b>	<p><b>Construction Phase</b></p> <p>In construction phase, cement bags, woods remain, debris will be generated.</p> <p><b>Operation Phase</b></p> <p>Food Waste and Recyclables Material like; paper, plastic etc.</p>	<ul style="list-style-type: none"> <li>- Waste reduction methodologies will be implemented.</li> <li>- On spot segregation will be ensured.</li> <li>- Covered bins shall be ensured.</li> <li>- Separate Bins for recyclable material and other type of solid waste shall be ensured.</li> <li>- Ensure the disposal of waste properly from the site on daily basis to avoid odor and maintained the site esthetics.</li> <li>- Food waste will be disposed of separately.</li> <li>- Waste inventory of hazardous and non-hazardous waste generated will be prepared and periodically updated.</li> <li>- Scrap metal waste generated from construction activities will be collected and stored separately in a waste yard and sold to local recyclers for reuse purposes.</li> <li>- Solid waste generated during construction and operation activities will be segregated disposed of appropriately.</li> <li>- Waste will be disposed of properly at designated disposal area.</li> <li>- Food waste and recyclables viz. paper, plastic, glass etc. will be stored in designated waste bins/containers.</li> </ul>	Daily during Construction Phase	<p><b>Construction phase</b> Contractor</p> <p><b>Operational phase</b> PHED</p>

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
			<p>The recyclables will be periodically sold to local recyclers while food waste will be disposed through proper waste handling mechanism.</p> <ul style="list-style-type: none"> <li>- Separate bins with symbols shall be placed at construction area.</li> <li>- Secondary containment shall be ensured to avoid the leakages and seepages.</li> <li>- Waste disposal will not be allowed in agriculture lands.</li> </ul>		
7.	<b>Soil and Land Contamination</b>	<p><b>Construction Phase</b></p> <p>No any chemical or hazardous substance is used in the construction phase therefore there is no chance of soil or land contamination</p> <p><b>Operation Phase</b></p> <p>None</p>	<ul style="list-style-type: none"> <li>- Debris, Waste generated from construction material will be properly covered and stored and disposed-off periodically during the construction phase. No leftover construction waste will be left on the site.</li> <li>- Maintenance of machinery will only be carried out at designated places to avoid any fuel spill if require.</li> <li>- Reinstate and protect cleared areas as soon as possible.</li> <li>- Cover unused area of disturbed or exposed surfaces immediately with mulch/grass turnings/tree plantations.</li> <li>- Locate stockpiles away from drainage lines.</li> <li>- Remove debris from drainage paths and sediment control structures.</li> <li>- Keep the final or finished surface of</li> </ul>	Weekly during Construction Phase	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
			all the raised lands free from any kind of depression that causes water logging. - Reinstatement the natural landscape of the ancillary construction sites after completion of works.		
8.	<b>Waste Water</b>	<p><b>Construction Phase</b></p> <p>Water used in the construction material during preparing bed and lean activity, construction of pump house, septic tanks, LSRs and other works</p> <p><b>Operation Phase</b></p> <p>Sanitary waste water from the office</p>	<p>- Conduct daily inspections at the site to ensure removal of construction debris.</p> <p>- Store construction material containing fine particles in an enclosure so that sediment laden water does not drain into nearby water drains.</p> <p>- Sanitary waste will be drained to the drainage system properly.</p>	<p>- Visual inspection on daily basis during Construction Phase</p> <p>- Wastewater quality analysis at the beginning and end of construction phase</p>	<p><b>Construction phase</b></p> <p>Contractor</p>
9.	<b>Safety Hazards</b>	<p><b>Construction Phase</b></p> <p>Project related vehicular traffic Driving Injuries related with civil works and electrical works Heat Waves Cold Waves Communicable Diseases</p> <p><b>Operation Phase</b></p> <p>Injuries during Operational phase</p>	<p>- Ensure the World Bank EHS guideline will be followed.</p> <p>- Personal Protective Equipment will be provided during construction.</p> <p>- First Aid kits will be provided at sites.</p> <p>- Strict code of conduct will be followed.</p> <p>- Make safety precautions and display on the notice board of entry gate in both national and local language.</p> <p>- During heat wave, working hours will be revised to make sure that labor work force work only in early hours</p>	<p>Daily during Construction and operation phase</p>	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>

[illegible]



Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
		<b>Operation Phase</b> Employment opportunities Awareness to local people to emergency situation Gender Issues, Gender inclusion GBS and VAC related impacts	unit including an adequate supply of sterilized dressing material and appliances. - Community liaison will be maintained during the construction stage and GRM will be developed and ensure the accessibility to the local community and labor.		



## 5 PICTORIAL PROFILE OF PROJECT SITES

### 5.1 Ammanullah Dhari Rural Water Supply Scheme, Taluka Shahdadpur, District Sanghar



### 5.2 Berani Urban Water Supply Scheme, Taluka Jam Nawaz Ali, District Sanghar



### 5.3 Chak No. 5 & 8 Rural Water Supply Scheme, Taluka Sanghar, District Sanghar





#### 5.4 Gujri Rural Water Supply Scheme, Taluka Sanghar, District Sanghar



#### 5.5 Urban Drainage System, Taluka Khipro, District Sanghar



#### 5.6 Shahdadpur Urban Drainage Scheme, Taluka Shahdadpur, District Sanghar



## **6 ENVIRONMENTAL AND SOCIAL IMPLEMENTATION BUDGET**

There are total 34 schemes in District Sanghar in which 06 are Drainage Schemes and 28 are water supply schemes. Environmental Quality Analysis for Air Quality Monitoring, Testing of Water and Wastewater Quality and Noise Level monitoring will be conducted at each sub-project site, starting and at completion of the sub-projects. The detail of cost has been given in table below. It is worthy to mention here that sub-projects are in Government owned land and there will be no social issue during the rehabilitation work.

**Table 8: Environmental Compliance Cost of District Sanghar**

Item No.	Item	Rational	Frequency	Average Rate (Rs.)/unit*	Site-wise Quantity	No of units/sites	Total Quantity	Estimated Amount (Rs.)
A. Environmental Analysis at Start of Civil Works								
1	Wastewater	1 Sample from Each Drainage Scheme	Once at the Start of Construction	17,000	1	6	6	102,000
2	Drinking Water	One Sample from each water supply scheme		15,000	1	28	28	420,000
3	Ambient Air	1 Sample from each subproject scheme		15,000	1	34	34	510,000
4	Ambient Noise	1 Sample from each subproject scheme		1,000	1	34	34	34,000
Sub Total - A								1,066,000
B. Environmental Analysis Cost at Completion Phase (18 months)								
1	Drinking Water	One from camp area at each water supply scheme site	Once at the End of Construction	15,000	1	28	28	420,000
	Wastewater	1 Sample from Each Drainage Scheme		17,000	1	6	6	102,000
2	Generators/Stack Emission (If available)	One Sample from construction site		10,000	1	34	34	340,000
3	Ambient Air	One from the camp area		15,000	1	34	34	510,000
4	Ambient Noise	One from the camp area		1,000	1	34	34	34,000
5	Mobilization Charges	At each water supply and drainage scheme		10,000	1	34	34	340,000
Sub Total - B								1,746,000
C. EHS Management								
1	Personal Protective Equipment		Bi annual	6,000	1	43	43	258,000
2	Waste Disposal from Construction Sites						Lump sum	100,000

<b>3</b>	Project dissemination materials such as banners, flayers, notice board etc.		10000	1	43	43	430,000
<b>Sub Total - C</b>							<b>788,000</b>
<b>D. EHS Administrative Cost</b>							
<b>1</b>	Training/Capacity Building (Environment, Social, Gender, & OHS)	50 persons	20,000	1	34	34	680,000
<b>2</b>	Social Expert (for social compliance & GRM implementation) Salary		120,000	18	1	18	2,160,000
<b>3</b>	GRM running & General Community support needs (if any)					Lump sum	500,000
<b>4</b>	Environmental & OHS Officer Salaries (120 thousand for each person)		120,000	18	1	18	2,160,000
<b>Sub Total - D</b>							<b>5,500,000</b>
<b>TOTAL OF (A TO D)</b>							<b>9,100,000</b>

\* Schemes wise testing will be performed at start of civil works

## 7 OPERATION AND MAINTENANCE (O&M)

Operation and maintenance (O&M) of Water Supply (WS) and Drainage Systems is a critical task that ensures the continued provision of safe and reliable water and drainage services to communities. O&M activities can be divided into two main categories: preventive maintenance and corrective maintenance.

Preventive maintenance is carried out on a regular basis to prevent problems from occurring. This includes activities such as cleaning and inspecting pipes, valves, and other equipment; lubricating the moving machines etc. Corrective maintenance is carried out to address problems that have already occurred. This includes activities such as repairing broken pipes, replacing damaged equipment, and clearing blockages in drainage systems. In addition, the PHED should also ensure timely procurement of disinfectant chemicals for disinfection of the water and keep a sufficient stock of such chemicals so that there is no interruption in making the water safe for human consumption.

O&M of WS and Drainage Systems is a complex and challenging task. It requires a skilled workforce, a well-maintained inventory of spare parts, and a comprehensive set of procedures and documentation. However, the benefits of effective O&M are significant. By preventing problems from occurring and addressing problems quickly, O&M can help to ensure the continued provision of safe and reliable water services to communities. After completion of rehabilitation work, the project will be handed over to the PHED who will operate and maintain the project. PHED department has technical staff for operation and maintenance of proposed rehabilitation schemes. Moreover, GoS yearly allocates substantial budget for operation and maintenance of these schemes. After rehabilitation these schemes will be operationalized under PHED through its O&M section which is adequately staffed with required skills and expertise. Training of these staff would be required to operate new machinery installed during rehabilitation.

### 7.1 Key aspects of O&M for WSS and Drainage systems:

#### 7.1.1 Operation:

- i. Regular monitoring of water sources, such as reservoirs, wells, or treatment plants, to ensure a consistent water supply.
- ii. Operation of pumps, valves, and control systems to regulate the flow of water through the distribution network.
- iii. Monitoring and maintaining water pressure levels within acceptable limits.
- iv. Disinfecting the water all the times prior to supplying to the consumers.
- v. Managing water quality, including regular testing and treatment to ensure compliance with health and safety standards.
- vi. Coordinating with the local community and consumers to address their water supply needs and concerns.

#### 7.1.2 Maintenance

- i. Routine inspection of pipelines, valves, and fittings to identify and repair leaks, cracks, or any other damages.

- ii. Clearing blockages in pipelines, channels, and drains to maintain an unobstructed flow of water.
- iii. Cleaning and desilting of reservoirs, tanks, and drainage channels to prevent sedimentation and maintain capacity. After every cleanup operation, the tanks, reservoirs and / or pipelines must be disinfected prior to putting them back to use.
- iv. Repair and maintenance of water treatment plants, pumping stations, and other infrastructure components.
- v. Regular calibration and maintenance of measuring instruments and control systems.
- vi. Periodic maintenance of equipment such as pumps, motors, and generators.

#### **7.1.3 Emergency Response**

- i. Developing contingency plans and emergency response protocols to address unexpected events such as equipment failures, natural disasters, or water contamination incidents.
- ii. Establishing a communication system to notify the public and relevant authorities in case of emergencies.
- iii. Rapid response and repair of damages during emergencies to restore the system's functionality as quickly as possible.

#### **7.1.4 Water Conservation**

- i. Implementing water conservation measures, such as promoting public awareness campaigns, encouraging responsible water usage, and identifying and repairing water wastage points.
- ii. Monitoring and managing water losses and leakages in the distribution network.
- iii. Regular assessment and optimization of the system to reduce energy consumption and improve overall efficiency.

#### **7.1.5 Data Management**

- i. Maintaining comprehensive records of system performance, maintenance activities, and water quality data.
- ii. Utilizing data analysis and predictive modeling to optimize the operation and maintenance activities.
- iii. Incorporating modern technologies, such as remote sensing, real-time monitoring systems, and data analytics, to improve decision-making and efficiency.

#### **7.1.6 Documentation and Handover**

- i. Compile project documentation (operation and maintenance manuals, as-built drawings, warranties).
- ii. Hand over documentation to the PHED for future reference.

#### **7.1.7 Facilities Management**

- i. Establish a comprehensive facilities management plan.
- ii. Outline responsibilities, protocols, and schedules for maintenance, inspections, repairs, and upgrades.

#### **7.1.8 Staffing and Training**

- i. Increase adequate staffing.
- ii. Provide necessary training for personnel deputed for O&M.
- iii. Increase maintenance technicians, engineers, custodial staff, security personnel, and administrative support.

#### **7.1.9 Preventive Maintenance**

- i. Implement a preventive maintenance program.
- ii. Conduct regular inspections, cleaning, lubrication, adjustments, and equipment testing.

#### **7.1.10 Repairs and Corrective Maintenance**

- i. Respond promptly to issues and conduct repairs.
- ii. Establish an inventory of spare parts.
- iii. Maintain relationships with reliable contractors or suppliers.

#### **7.1.11 Safety and Compliance**

- i. Enforce safety protocols.
- ii. Conduct regular inspections and provide safety training.
- iii. Ensure compliance with relevant codes and regulations.

#### **7.1.12 Energy Efficiency and Sustainability**

- i. Promote energy efficiency and sustainable practices.
- ii. Implement energy management systems.
- iii. Optimize equipment performance.
- iv. Utilize renewable energy sources and green building practices.

#### **7.1.13 Asset Management**

- i. Track and monitor equipment and systems.
- ii. Maintain an asset inventory.
- iii. Conduct periodic assessments and plan for replacements or upgrades.

#### **7.1.14 Stakeholder Communication**

- i. Establish clear communication channels.
- ii. Receive and address maintenance requests.
- iii. Maintain effective communication with stakeholders.

#### **7.1.15 Continuous Improvement**

- i. Regularly evaluate and seek feedback.
- ii. Analyze maintenance records.
- iii. Conduct user surveys.
- iv. Involve the maintenance team in identifying areas for improvement.



#### 7.1.16 Cleaning and maintenance of solar system

- i. Regularly clean solar panels to remove dust, debris, and dirt.
- ii. Inspect for any damage or wear and tear on the panels.
- iii. Check the wiring and connections for any loose or damaged parts.
- iv. Monitor the performance of the solar system to ensure it is generating the expected amount of energy.
- v. Conduct preventive maintenance such as tightening bolts and screws, and replacing faulty components.
- vi. Schedule professional inspections and maintenance by qualified solar technicians.
- vii. Keep records of cleaning and maintenance activities for future reference.
- viii. Follow manufacturer's guidelines and recommendations for cleaning and maintenance.
- ix. Consider scheduling cleaning during periods of low sunlight or in cooler temperatures for safety reasons.
- x. Ensure the safety of personnel when performing maintenance tasks on the solar system.

#### 7.1.17 Regular maintenance and monitoring of Hypo-chlorinator

- i. Routine inspections: Conduct regular inspections of the hypo-chlorinator system to identify any visible signs of damage, leaks, or malfunctions. Inspect all components, including injection systems, pipes, valves, and storage tanks.
- ii. Calibration of equipment: Calibrate the hypo-chlorinator equipment periodically to ensure accurate dosing or injection of chlorine. Follow the manufacturer's guidelines for calibration procedures and frequency.
- iii. Replacement of parts: Replace worn-out or damaged parts of the hypo-chlorinator system as needed. This may include valves, seals, gaskets, tubing, or other components. Use genuine manufacturer-approved parts for replacements.
- iv. Monitoring chlorine levels: Regularly monitor chlorine levels in the water supply to ensure that the desired disinfection levels are being maintained. This can be done through manual sampling and testing or by using automated monitoring systems. Adjust the hypo-chlorinator settings if necessary to achieve the desired chlorine concentration.
- v. System optimization: Continuously assess the performance of the hypo-chlorinator system and optimize its operation for efficiency and effectiveness. This may involve adjusting dosing rates, ensuring proper mixing of chlorine, optimizing contact time, and considering factors such as water temperature and flow rate.
- vi. Documentation: Maintain detailed records of maintenance activities, inspections, calibrations, and chlorine monitoring results. This documentation serves as a reference for future maintenance, helps track system performance, and aids in regulatory compliance.
- vii. Training and awareness: Regularly train and update the personnel responsible for operating and maintaining the hypo-chlorinator system. Ensure they are aware of proper maintenance procedures, safety protocols, emergency response measures, and any updates or changes in regulations.

#### 7.1.18 PHED Responsibility

- i. PHED solely responsible for operation and maintenance.
- ii. Customize O&M plans for long-term success.

Overall, O&M of WSS and Drainage System requires a combination of technical expertise, regular monitoring, preventive maintenance, and prompt response to ensure the uninterrupted supply of clean water and effective wastewater management. The Public Health Engineering Division (PHED) would typically be responsible for the operation and maintenance of public infrastructure projects related to Water Supply and Drainage System. They would be the primary entity overseeing the operation and maintenance activities to ensure the functionality and sustainability of the constructed assets. By considering these aspects and implementing effective O&M practices, the project can function optimally and provide long-term benefits to its users and stakeholders.

## 7.2 Key benefits of effective O&M of WSS and Drainage Systems

- i. **Improved water quality:** O&M activities can help to prevent the contamination of water supplies, which can lead to waterborne diseases.
- ii. **Increased water availability:** O&M activities can help to reduce leakages and improve the efficiency of water distribution systems, which can lead to increased water availability for communities.
- iii. **Reduced flooding:** O&M activities can help to prevent flooding by clearing blockages in drainage systems and improving the capacity of storm water management systems.
- iv. **Improved public health:** O&M activities can help to prevent the spread of waterborne diseases by improving the quality of water supplies and reducing the risk of flooding.
- v. **Increased property values:** Communities with well-maintained WSS and drainage systems typically have higher property values.

The cost of O&M can be significant, but the benefits far outweigh the costs. By investing in effective O&M, communities can ensure the continued provision of safe and reliable water services to their residents.

## **ANNEXURE 1:**

### **Environmental & Social Screening Checklist of All Schemes of District Sanghar**

**Annexure 1: Environmental & Social Screening Checklist of All Schemes of District Sanghar**

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

Name of Subproject:	Rehabilitation of Damaged Water Supply & Drainage Schemes		
Sector:	Public Health Engineering Department (PHED)		
Subproject Location:	Sanghar, Sindh		
Schemes Location:	Wali Dino Chand Water Supply Scheme (Taluka Sanghar)	Coordinates:	24°38'09.2"N 69°02'28.0"E
Date	2/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	The site is devoid of vegetation. No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?	✓		The risk of contaminating drinking water sources would be short-term only during the construction phase of rehabilitation works of existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on eastern side at a distance of 1.9km away.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No such category is present in the subproject area.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities or in a close periphery.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Were <b>vulnerable</b> groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Community requested to conduct a comprehensive needs assessment to understand the water supply demands and challenges in the area.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Padri Goth Water Supply Scheme (Taluka Sanghar)	Coordinates:	26° 4'7.35"N 68°59'27.39"E
<b>Date</b>	2/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Minor impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Minor impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.



Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.

Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The community asked about the operations and how they will be benefited by the subproject.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women of the subproject area were taken onboard also.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Gujri Water Supply Scheme (Taluka Sanghar)	Coordinates:	26°11'7.69"N 68°58'12.67"E
<b>Date</b>	2/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems</b> , and/or ecosystem services?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject	✓		Minor impacts only during construction.

intervention activities, particularly during the construction phase?			
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Will community Health and Safety be impacted due to construction?
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, females were happy that sufficient supply of water will be available to the subproject area.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Chak No-11 Water Supply Scheme (Taluka Sanghar) **Coordinates:** 26° 4'50.92"N 68°55'54.54"E

**Date** 2/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Minor impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Minor impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?		✓	Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a waterbody, Herri Distributary is flowing on eastern side at a distance of 623m
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.



Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community requested to conduct a comprehensive needs assessment for the supply of drinking water as the population has increased but water supply and drainage networks are not available.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women of the subproject area were taken onboard also.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Chak No-2 Water Supply Scheme (Taluka Sanghar)	Coordinates:	26°10'5.99"N 68°57'50.10"E
<b>Date</b>	2/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a waterbody, Nara Canal is flowing on eastern side at a distance of 2.5 km and a wetland complex Chotiari Reserve is 3 km away.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject	✓		Minor impacts only during construction.

intervention activities, particularly during the construction phase?			
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community members asked about the operations of the drainage Scheme and the benefits from it.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, there is no attention to the literacy rate and education system of children.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Chak No- 3&4 Water Supply Scheme (Taluka Sanghar)	Coordinates:	26° 8'14.91"N 68°57'29.39"E
<b>Date</b>	4/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems</b> , and/or ecosystem services?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, A canal is flowing on western side at a distance of 1.3 km whereas, Nara Canal and wetland complex Chotiari Reserve is 5.1 km away.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities or in a close periphery.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community requested to resolve the specific health and hygiene challenges in the community due to stagnant water.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to the unavailability of a drainage network especially during monsoon and after it.



**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Chak No-5&8 Water Supply Scheme (Taluka Sanghar)	Coordinates:	26° 7'5.29"N 68°53'2.63"E
<b>Date</b>	4/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on southern side at a distance of 2.2 km.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The community pointed out that drainage networks are not available and if available are in bad condition or blocked.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women of the subproject area were taken onboard also. Mostly concerns were related to damaged or unavailable drainage lines.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Sub project:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Sanghar Urban Water Supply Scheme (Taluka Sanghar)	Coordinates:	26° 2'13.01"N 68°57'45.78"E
<b>Date</b>	4/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The community pointed out that drainage networks are not available and if available are in bad condition or blocked.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women of the subproject area were taken onboard also.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes
<b>Sector:</b>	Public Health Engineering Department (PHED)
<b>Subproject Location:</b>	Sanghar, Sindh
<b>Schemes Location:</b>	Sanghar City Old Scheme (Taluka Sanghar) Coordinates: 26° 2'22.36"N 68°57'21.20"E
<b>Date</b>	4/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion



Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓	Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?	✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)	✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>		
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems</b> , and/or ecosystem services?	✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?	✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?	✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>		
Will the proposed subproject activities involve <b>land acquisition</b> ?	✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?	✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?	✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓	Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?	✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓	Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The community pointed out that drainage networks are not available and if available are in bad condition or blocked.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women shared that stagnant water or wastewater causes skin irritations and other diseases.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Kandairi Urban Water Supply Scheme Coordinates:  
 (Taluka Sanghar) 25°48'2.95"N 69° 4'17.95"E

**Date** 4/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems</b> , and/or ecosystem services?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal, Ban Waah is flowing on eastern side at a distance of 152 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction. Proper mitigations must be implemented so that social receptors would not get disturbed.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities or in a close periphery.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community requested to provide water supply lines and drainage network where it is not available.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to the unavailability of a drainage network especially during monsoon and after it.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Birani Urban Water Supply Scheme (Taluka Sanghar)	<b>Coordinates:</b>	25°47'2.91"N 68°47'22.05"E
<b>Date</b>	5/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community members expressed concern about the overall impact of the water supply and drainage system on public health and sanitation.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, their main concern was how they will be benefited by the schemes.



**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Jam Nawaz Ali Urban Water Supply Scheme -1 (Taluka Sanghar)	<b>Coordinates:</b>	25°46'50.01"N 68°51'29.53"E
<b>Date</b>	5/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on western side at a distance of 1.3km.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction. Proper mitigations must be implemented so that social receptors would not get disturbed.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?	✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities in a close periphery.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?	✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓	The community also raised concerns about the construction activities associated with water supply and drainage schemes can cause disruptions to daily life, including noise, dust, traffic congestion, and temporary service interruptions.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓	Yes. They were concerned about health and hygiene issues due to unavailability or improper supply of water as well as stagnant wastewater.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Jam Nawaz Ali Urban Water Supply Scheme -2 (Taluka Sanghar)	<b>Coordinates:</b>	25°46'58.98"N 68°50'55.01"E
<b>Date</b>	5/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowzers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on western side at a distance of 430m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject	✓		Minor impacts only during construction. Proper mitigations must be implemented so

intervention activities, particularly during the construction phase?			that social receptors would not get disturbed.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities in a close periphery.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The community was happy as the associated subproject works will improve access to clean water, proper sanitation facilities, and effective drainage systems in the area.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes. They were concerned about health and hygiene issues due to unavailability or improper supply of water.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Daim Khan Dhamrah Water Supply Scheme (Taluka Shahdad Pur)	<b>Coordinates:</b>	26°10'27.20"N 68°35'43.36"E
<b>Date</b>	6/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on Southwestern side at a distance of 1.4km.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction. Proper mitigations must be implemented so that social receptors would not get disturbed.



Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?	✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities or in a close periphery.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?	✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓	Community requested to conduct a comprehensive needs assessment to understand the specific education gaps and challenges in the community.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓	Yes. Females were concerned about their mobility for daily purposes during construction.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Amanullah Dahri Water Supply Scheme (Taluka Shahdad Pur)	<b>Coordinates:</b>	25°51'6.72"N 68°37'14.24"E
<b>Date</b>	6/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a natural lake is flowing on eastern side at a distance of 729m whereas, a canal is flowing on western side at a distance of 2.24 km.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community members showed concerns about the overall impact of the water supply and drainage schemes on public health and sanitation.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women shared that stagnant water or wastewater causes skin irritations and other diseases.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Bagowadadani Water Supply Scheme  
(Taluka Tando Adam)

**Coordinates:**  
25°52'49.29"N 68°41'23.12"E

**Date** 7/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, two canals are flowing on southern side at a distance of 113 m and 567 m respectively.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?	✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?	✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓	The community pointed out that drainage networks are not available and if available are in bad condition or blocked.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓	Yes, women shared that stagnant water or wastewater causes skin irritations and other diseases. There is also unavailability of educational facilities like higher school and colleges for girls.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Sinjhoru City Urban Water Supply Scheme (Taluka Sinjhoru)

**Coordinates:** 26° 1'47.92"N 68°48'21.28"E

**Date** 9/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.



Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on northwestern side at a distance of 870 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?	✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?	✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓	The community urged to provide semi-skilled and unskilled jobs for local labor first.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓	Yes, some female members showed their reservations about their privacy during construction.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Khadro Urban Water Supply Scheme (Taluka Sinjhor)	<b>Coordinates:</b>	26° 8'39.77"N 68°43'2.29"E
<b>Date</b>	9/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on western side at a distance of 850 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Yes, residents investigated how disruptions to daily life, including noise, dust, traffic congestion, and temporary service interruptions will be mitigated.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, engaging local people during project activities and considering the women's privacy not be affected.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Gul Muhammad Thahim Water Supply Scheme (Taluka Sinjhoru) **Coordinates:** 26° 3'36.73"N 68°45'16.44"E

**Date** 9/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		The Stakeholder shows their concern regarding the impacts during the construction stage on waste management and land acquisition.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, there is no attention to the literacy rate and education system of children.



**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Kurkuli Water Supply Scheme (Taluka Sinjhor)  
**Coordinates:** 25°56'32.25"N 68°48'53.01"E

**Date** 10/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community members showed concerns about the overall impact of the water supply and drainage schemes on public health and sanitation.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women shared that stagnant water or wastewater causes skin irritations and other diseases.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Urban Water Supply Scheme Jhol-I (Taluka Sinjhoru) **Coordinates:** 25°57'8.85"N 68°53'4.15"E

**Date** 10/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems</b> , and/or ecosystem services?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Yes, community was concerned about how the maintenance and sustainability of drainage schemes will be ensured.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to unavailability of drainage network.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Urban Water Supply Scheme Jhol-II (Taluka Sinjhor)	<b>Coordinates:</b>	25°57'55.62"N 68°54'18.15"E
<b>Date</b>	10/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.



Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Yes, Will the drainage scheme require long-term maintenance? How sustainability will be ensured?
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to unavailability of drainage network.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Urban Water Supply Scheme Khipro (Taluka Khipro)	<b>Coordinates:</b>	25°49'26.19"N 69°22'47.11"E
<b>Date</b>	11/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes the disposal of suspended solids in nearby water bodies
Will the proposed subproject interventions pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		negligible impacts only during construction
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts only during construction
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.

Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion
Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities which exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject	✓		Minor impacts only during construction.

intervention activities, particularly during the construction phase?			
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community members showed concerns about the overall impact of the water supply and drainage schemes on public health and sanitation.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, women shared that stagnant water or wastewater causes skin irritations and other diseases.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Dost Muhammad Hingoro Water Supply Scheme (Taluka Khipro) **Coordinates:** 25°51'9.34"N 69°18'21.28"E

**Date** 11/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	The site is devoid of vegetation. No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, a canal is flowing on southwestern side at a distance of 1.3 km.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Will the drainage scheme require long-term maintenance? How sustainability will be ensured?
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to unavailability of drainage network.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Haji Muhammad Laghari Water Supply Scheme (Taluka Khipro)	<b>Coordinates:</b>	25°54'59.16"N 69°13'35.72"E
<b>Date</b>	11/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion.



Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction. Proper mitigations must be implemented so that social receptors would not get disturbed.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities or in a close periphery.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Community requested to resolve issues related to water supply lines and stagnant wastewater after rains
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes. Females were concerned about their mobility for daily purposes during construction.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Hathungo Water Supply Scheme (Taluka Khipro)	<b>Coordinates:</b>	25°47'26.11"N 69°26'52.58"E
<b>Date</b>	12/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	The site is devoid of vegetation. No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, Nara Canal is flowing at a distance of 282 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Will the drainage scheme require long-term maintenance?
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage network.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)  
ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Khahi Water Supply Scheme (Taluka Khipro)	<b>Coordinates:</b>	25°37'46.92"N 69°25'20.42"E
<b>Date</b>	12/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.
Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.

Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.



**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Haji Hussain Rajar/Khani Rajar Water Supply Scheme (Taluka Khipro)

**Coordinates:** 25°45'54.82"N 69°21'28.14"E

**Date** 12/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Kandairi Urban Drainage Scheme (Taluka Sanghar)	<b>Coordinates:</b>	25°47'47.51"N 69° 4'2.54"E
<b>Date</b>	4/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, A canal, Ban Waah is flowing on eastern side at a distance of 581 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Birani Urban Drainage Scheme (Taluka Jam Nawaz Ali)	<b>Coordinates:</b>	25°47'9.35"N 68°48'15.72"E
<b>Date</b>	5/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.



Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

**Name of Subproject:** Rehabilitation of Damaged Water Supply & Drainage Schemes

**Sector:** Public Health Engineering Department (PHED)

**Subproject Location:** Sanghar, Sindh

**Schemes Location:** Shahdad Pur Urban Drainage Scheme **Coordinates:**  
 (Taluka Shahdad Pur) 25°55'28.88"N 68°36'55.75"E

**Date** 6/9/2023

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Tando Adam Rasheed Colony UDS (Taluka Tando Adam)	<b>Coordinates:</b>	25°46'30.41"N 68°39'27.49"E
<b>Date</b>	7/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Soomar Khash kheli Drainage Scheme (Taluka Tando Adam)	<b>Coordinates:</b>	25°53'28.03"N 68°32'22.29"E
<b>Date</b>	7/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion



Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?	✓		Yes, Rohri Canal is flowing eastern side at a distance of 43 m.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

**SINDH FLOOD EMERGENCY REHABILITATION SUBPROJECT (SFERP)**  
**ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST OF SUB-SUBPROJECT**

<b>Name of Subproject:</b>	Rehabilitation of Damaged Water Supply & Drainage Schemes		
<b>Sector:</b>	Public Health Engineering Department (PHED)		
<b>Subproject Location:</b>	Sanghar, Sindh		
<b>Schemes Location:</b>	Urban Drainage Scheme Khipro (Taluka Khipro)	<b>Coordinates:</b>	25°49'48.89"N 69°22'48.35"E
<b>Date</b>	11/9/2023		

<i>Screening Question</i>	<i>Yes</i>	<i>No</i>	<i>Remarks</i>
<b>PHYSICAL ENVIRONMENT</b>			
Will the proposed subproject activities pose the risk of <b>clearance of vegetation</b> that may result in an increase in the level of suspended solids washing into nearby water bodies?		✓	No such activity will take place that causes this risk.
Will the proposed subproject activities pose a risk of <b>contaminating drinking water sources</b> due to construction activities?		✓	The risk of contaminating drinking water sources would be short-term as the primary objective of water supply and drainage scheme rehabilitation work is to rehabilitate the existing system and its associated facilities.
Is there any potential <b>pollution source</b> in water supply network?		✓	No, as such no pollution sources have been identified but due to flood existing infrastructure has been affected causes pollution in drinking water supply.
Is there any potential source that can <b>damage drainage network</b> ? Or Is it <b>affected by flood</b> ?	✓		Yes, flood and improper maintenance are the potential sources of destruction of drainage network
Will the proposed subproject interventions <b>deplete groundwater</b> because of the water used during rehabilitation activities?		✓	Water from tankers and bowsers will be utilized during construction.
Will the proposed subproject interventions result in an increase in <b>ambient air pollution</b> , including chemical and particulate matter due to the construction and operation of related machinery?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will the proposed subproject interventions result in an increase in <b>ambient noise levels</b> and vibrations due to the operation of construction machinery/vehicles?	✓		Negligible impacts will be posed only during the construction phase that will be mitigated.
Will these ambient noise levels be beyond the specifications in the <b>SEQS</b> ?		✓	No, proper implementation of mitigations and maintenance of equipment, and machinery will be done to keep levels within limits.
Will the proposed subproject activities lead to increased <b>soil erosion</b> ?		✓	Rehabilitation works do not involve any activity that will increase soil erosion

Will the proposed subproject interventions result in the generation of <b>hazardous and/or non-hazardous waste</b> ?	✓		Less quantity of debris and construction waste will be generated which will be handed over to the waste contractor for safe disposal.
Will the proposed subproject interventions result in potentially increased health risks for <b>subproject workers and communities</b> (e.g., communicable diseases)?		✓	Workers from nearby localities will be commuted daily for a specific duration so it would not increase health risks.
Are the proposed subproject interventions being implemented in an area with <b>high natural hazard risk</b> ? (e.g., floods, earthquakes, droughts, etc.)		✓	The Subproject area does not come under the category of high hazard risk.
<b>ECOLOGICAL ENVIRONMENT</b>			
Will the proposed subproject interventions potentially cause any adverse impacts on <b>habitats, ecosystems, and/or ecosystem services</b> ?		✓	No, as it will be limited to the specified areas of urban settlements.
Will any rehabilitation work be located in areas that would promote the <b>conversion of natural habitats</b> ?		✓	Rehabilitation work does not include the conversion of natural habitat as it will only upgrade the existing damaged utilities.
Will any proposed subproject interventions be located <b>on or near sensitive environmental areas</b> , including national parks and protected areas?		✓	No, there are no protected areas situated in nearby surroundings.
Are the proposed subproject interventions activities likely to pose risks to any <b>endangered species</b> ?		✓	Fauna of urban nature is found around subproject area that comes under the least concern status of the IUCN Red List.
<b>SOCIAL ENVIRONMENT</b>			
Will the proposed subproject activities involve <b>land acquisition</b> ?		✓	Subproject land is owned by GoS.
Are there any <b>forced labor or child labor</b> risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?		✓	There would not be any forced or child labor risk as the contractor is bound to hire only those people who have valid CNIC or are at least 18 years old.
Is <b>labor influx (outside labor force)</b> expected during the construction of the proposed subproject?		✓	No, locals of the area would be given preference for skilled and non-skilled jobs.
Will <b>local labor</b> be used for the proposed subproject construction activities?	✓		Yes, locals of the area will be given preference first.
Will there be any <b>temporary or permanent displacement</b> as a result of the proposed subproject construction or operation activities?		✓	Rehabilitation works will be done for existing utilities that exist in a demarcated area.
Are there expected to be any <b>traffic-related issues</b> as a result of the proposed subproject intervention activities, particularly during the construction phase?	✓		Minor impacts only during construction.

Are the proposed subproject activities likely to have <b>impacts on important religious/cultural heritage sites</b> ?		✓	No, as the rehabilitation work involves the upgradation or restoration of existing facilities.
Have there been any past <b>security-related issues</b> at the proposed subproject sites?		✓	No, the subproject area is situated in an urban settlement and on government-owned land.
Has <b>stakeholder engagement</b> taken place in the proposed subproject areas?	✓		Stakeholders showed a positive attitude and said that it would uplift the socio-economic condition of the community as the drainage system was very old and ineffective.
Were <b>vulnerable groups</b> involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)	✓		Yes, some female members shared hygiene and health issues due to damaged drainage networks especially during and after monsoon season.

## **ANNEXURE 2:**

### **Design Drawings of Water Supply Schemes & Drainage**



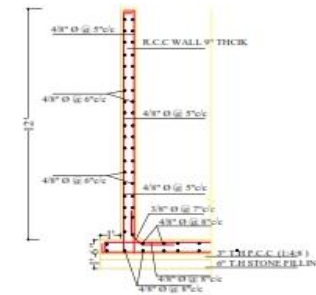
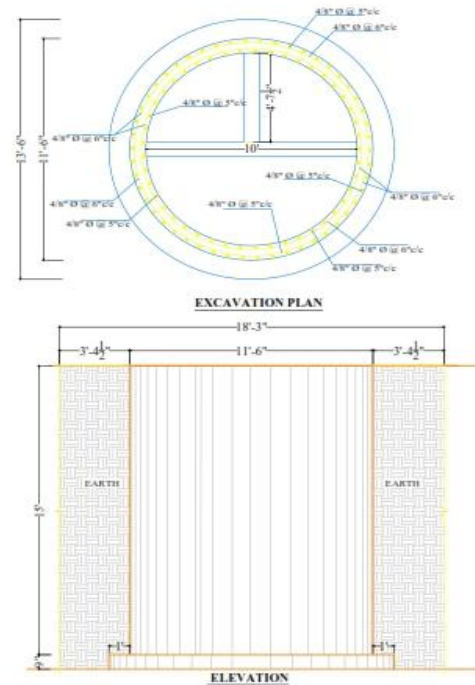


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202 | P a g e



## Collecting Tank 12' Depth



SECTION OF U.G. WATER TANK



PLANNING & DEVELOPMENT  
DEPARTMENT GOVERNMENT OF SINDH

CONSULTANTS:

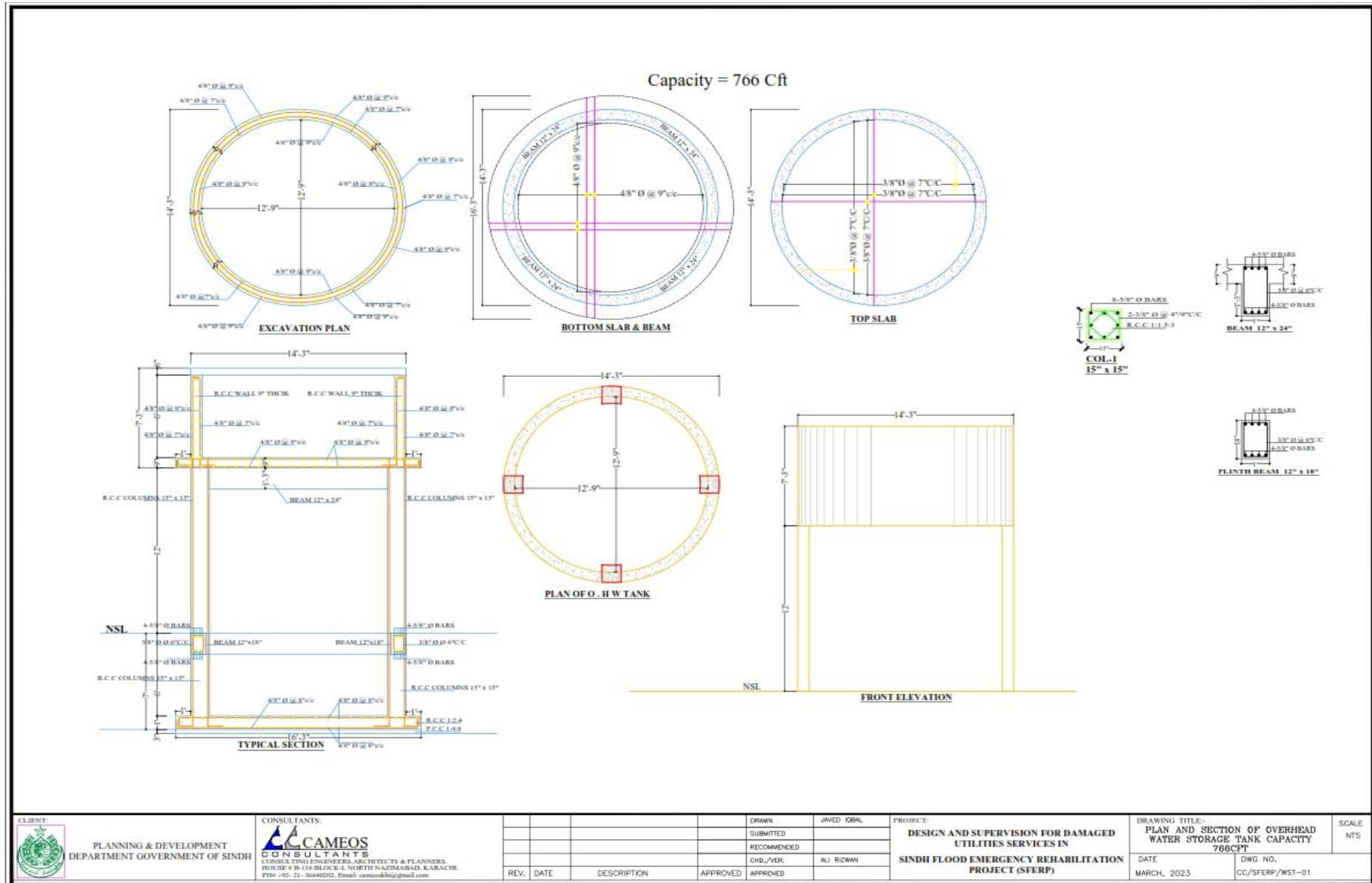
**CAMEOS**  
CONSULTANTS  
CONSULTING ENGINEERS, ARCHITECTS & PLANNERS.  
HOUSE # B-118 BLOCK-C, NORTH NAZIMABAD, KARACHI.  
PHONE: +92-21-36846022, Email: cameoskhi@gmail.com

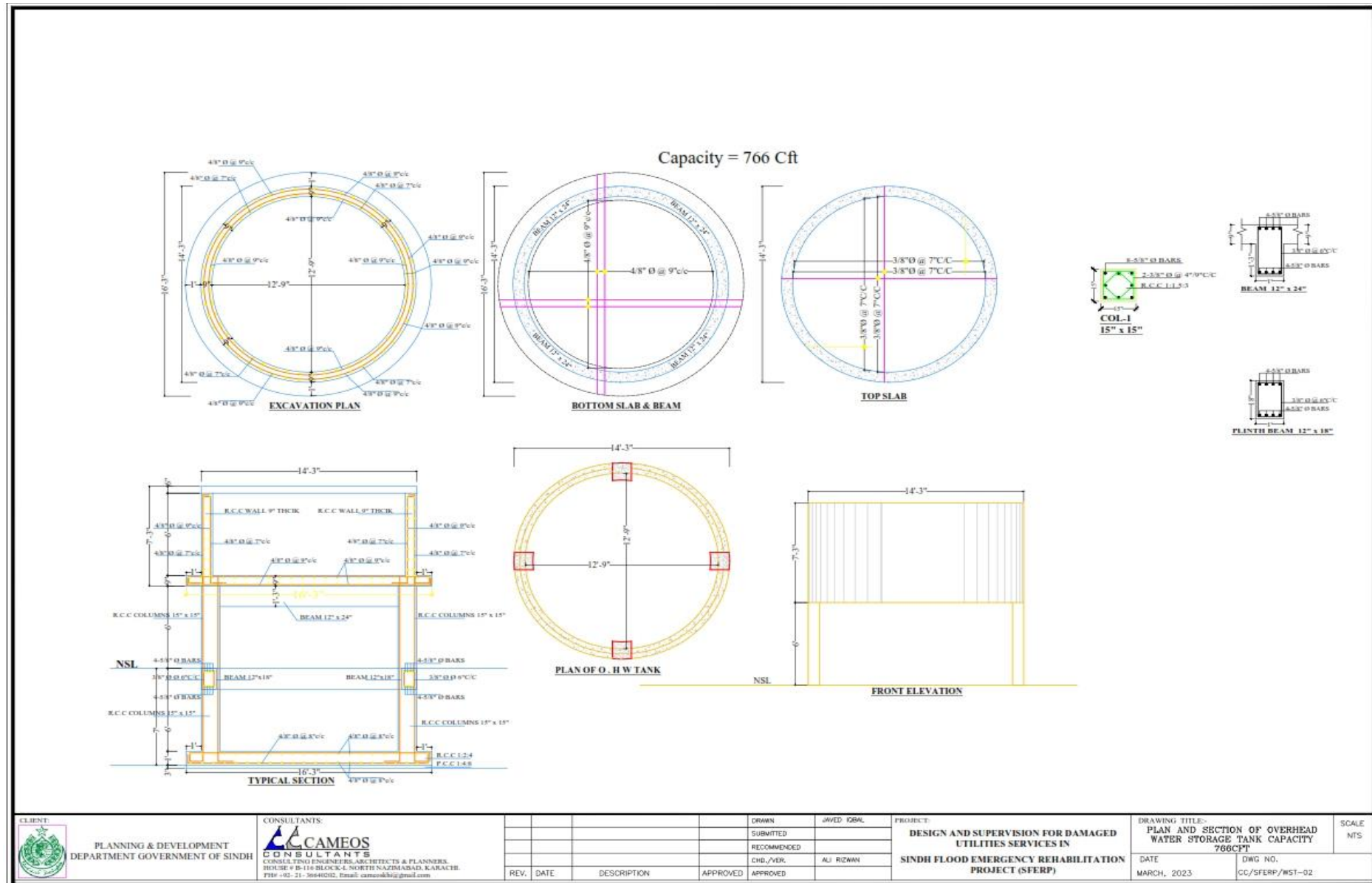
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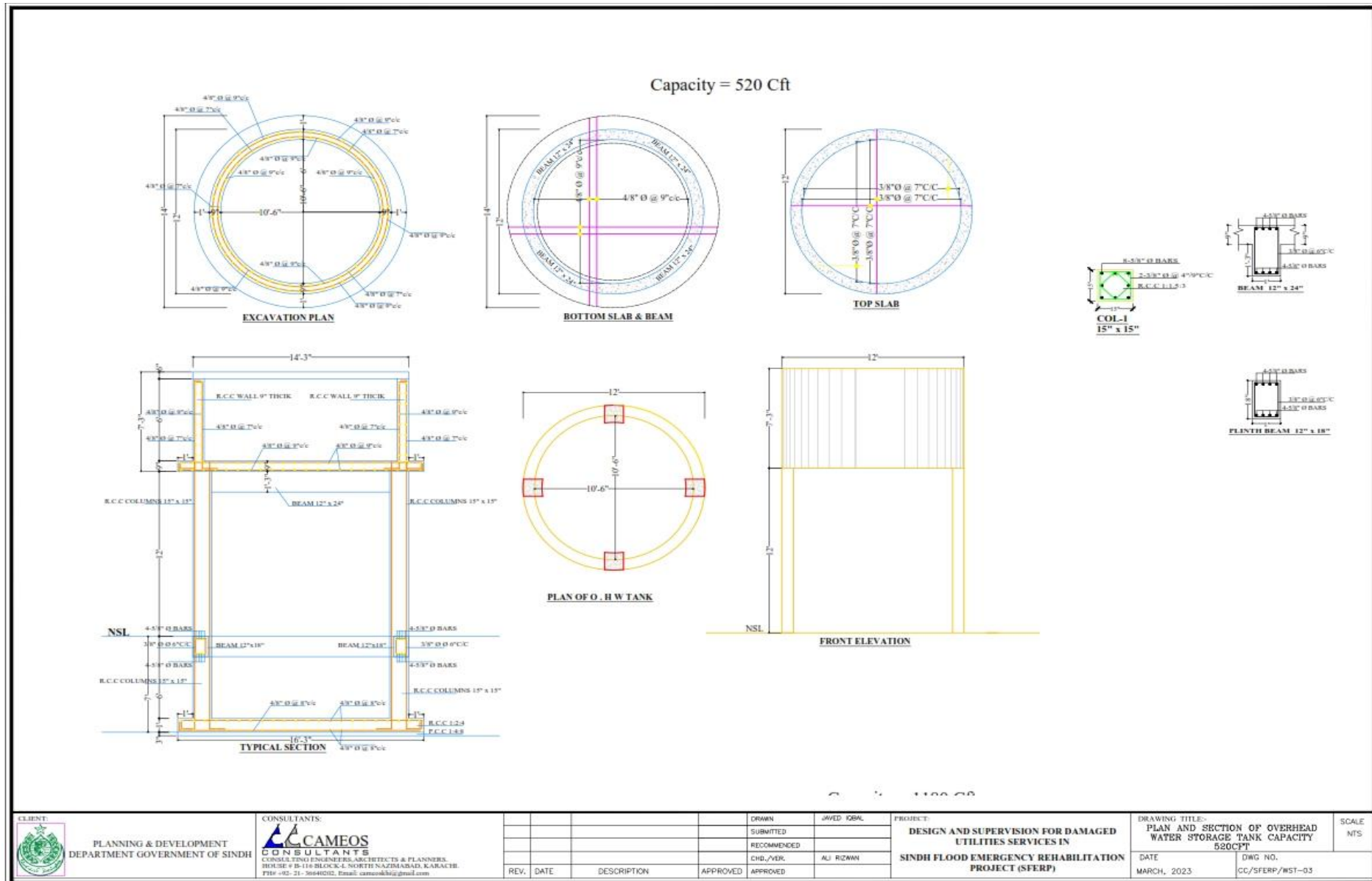
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DRAWN:	ALJ RIZWAN
APPROVED:	

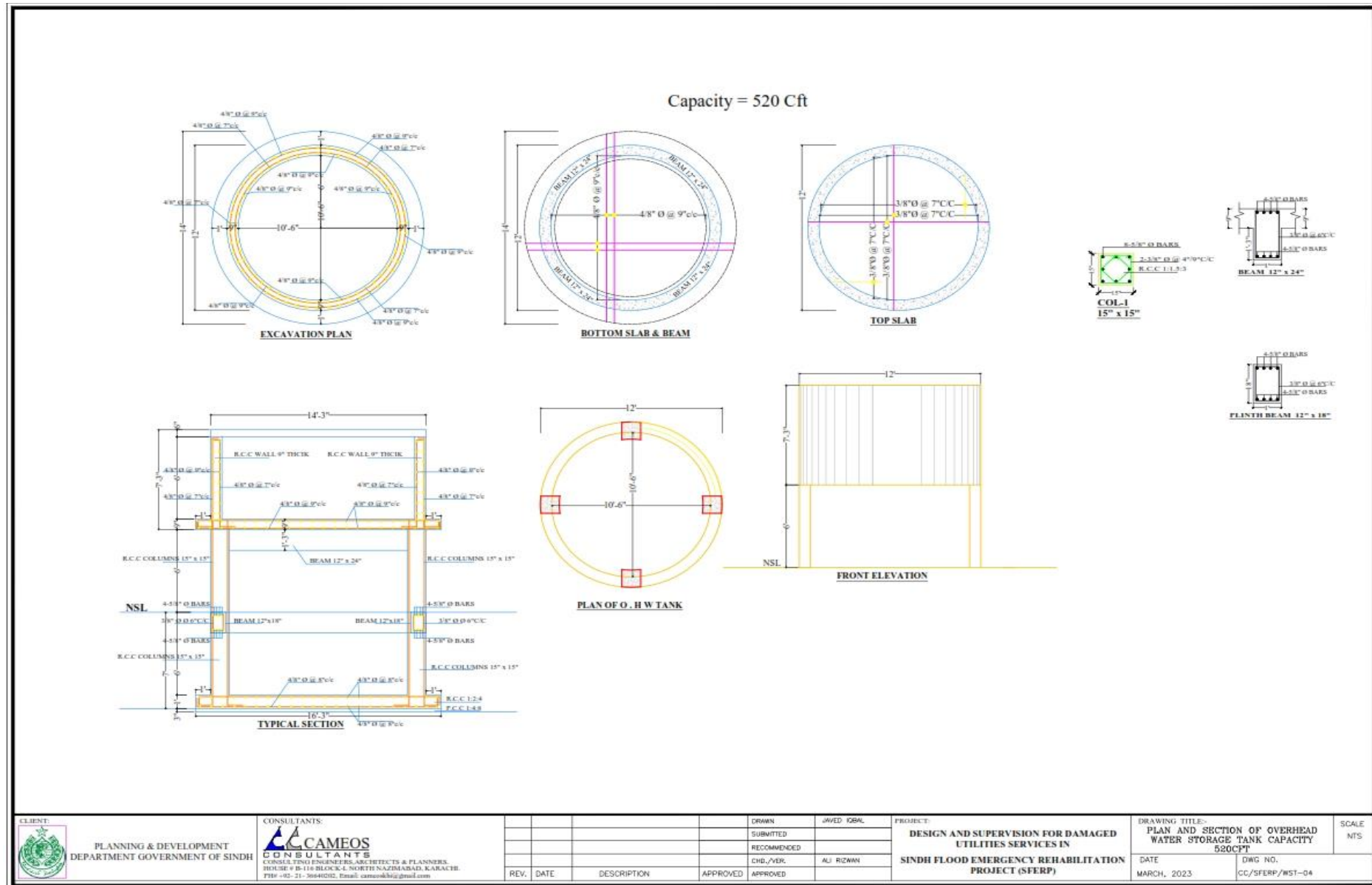
DRAWING TITLE:	PLAN AND SECTION OF COLLECTING TANK 12 FEET DEPTH
DATE:	MARCH, 2023
DWG NO.:	CC/SFERP/CT-03

SCALE:	NTS
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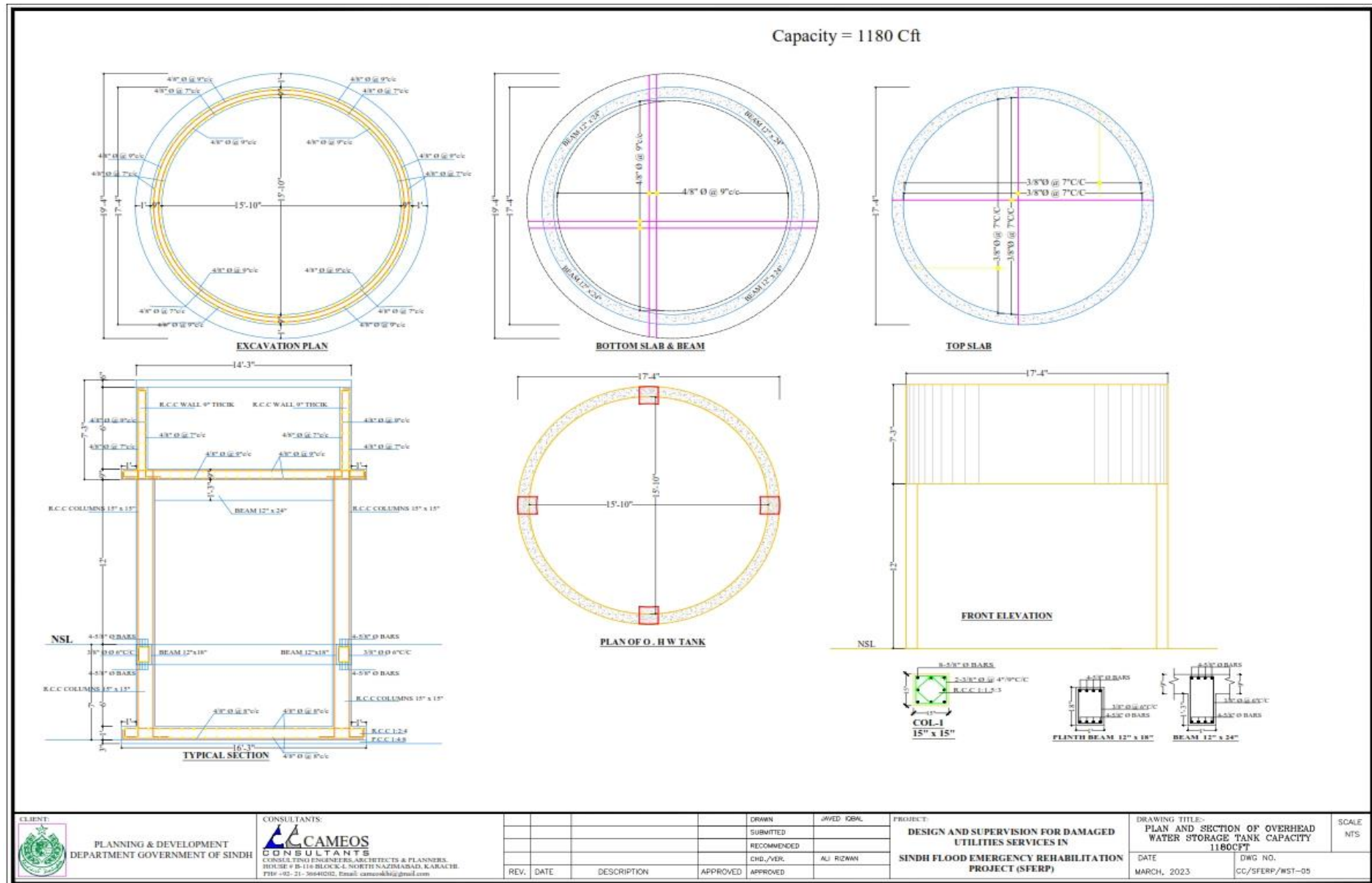


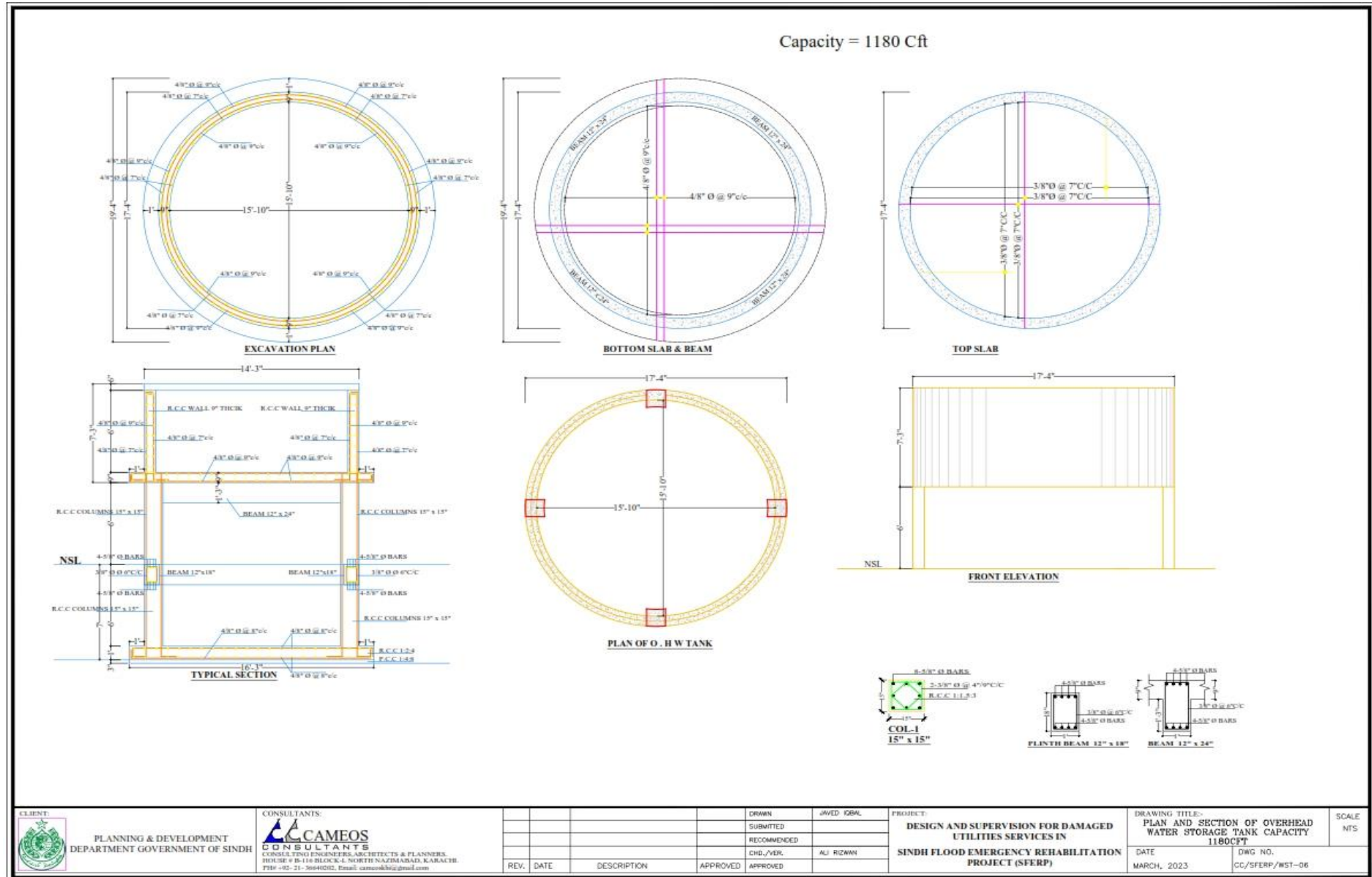


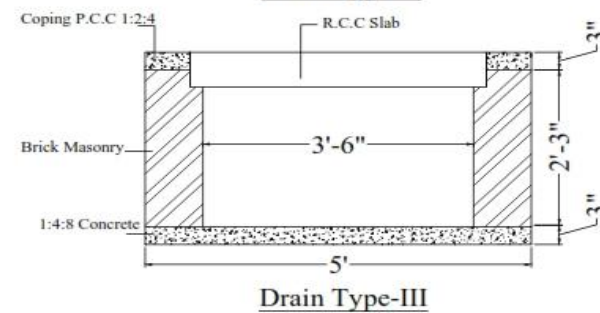
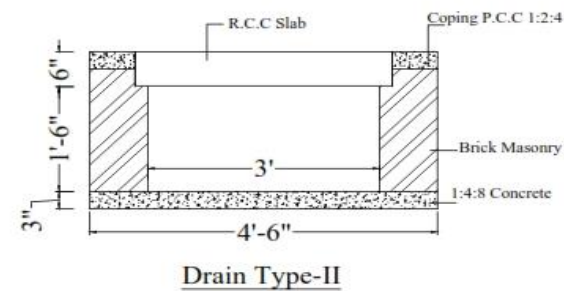
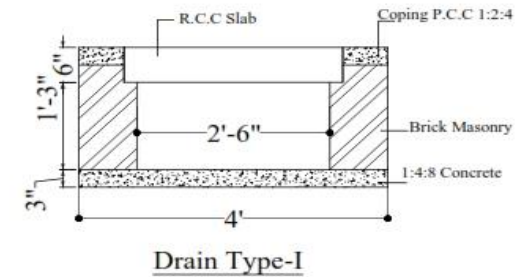
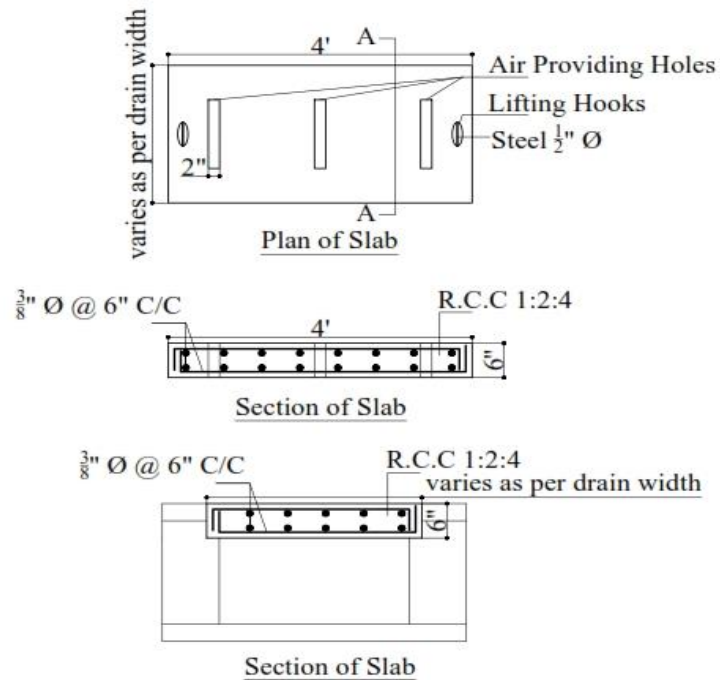












CLIENT:  
PLANNING & DEVELOPMENT  
DEPARTMENT GOVERNMENT OF SINDH

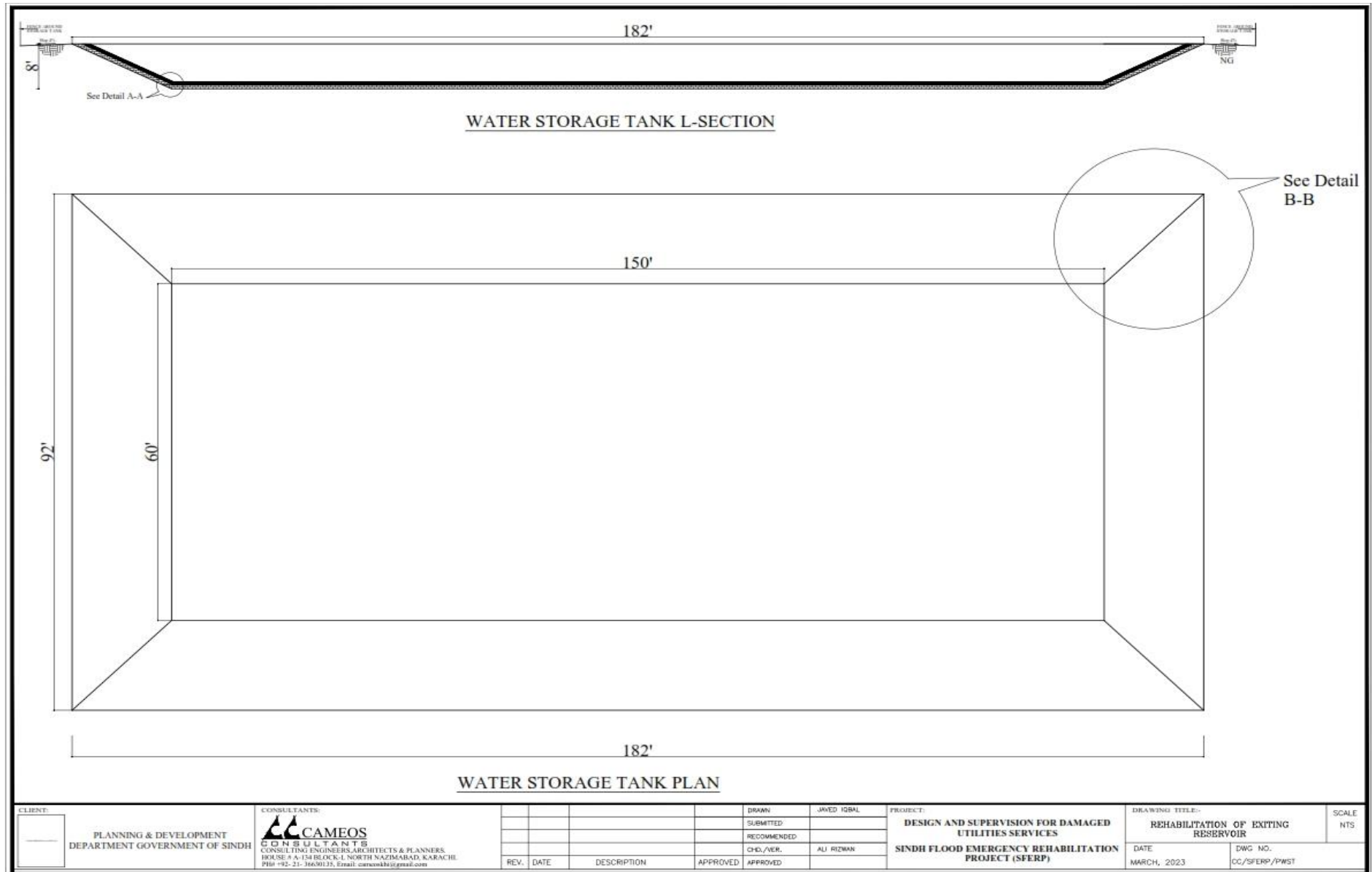
CONSULTANTS:  
**CAMEOS**  
CONSULTANTS  
CONSULTING ENGINEERS, ARCHITECTS & PLANNERS  
HOUSE # 8-116 BLOCK-L NORTH NAZIMABAD, KARACHI.  
Ph: +92-21-3668202, Email: cameoskh@gmail.com

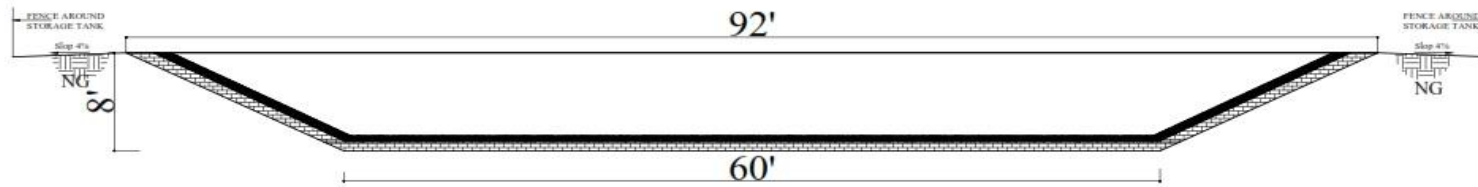
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				SUBMITTED	
				RECOMMENDED	
				CHD./VER.	ALI RIZWAN
				APPROVED	

PROJECT:  
DESIGN AND SUPERVISION FOR DAMAGED  
UTILITIES SERVICES  
SINDH FLOOD EMERGENCY REHABILITATION  
PROJECT (SFERP)

DRAWING TITLE:- DRAIN SECTIONS	SCALE NTS
DATE MARCH, 2023	DWG NO. CC/SFERP/DS-01

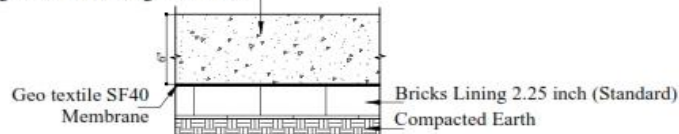




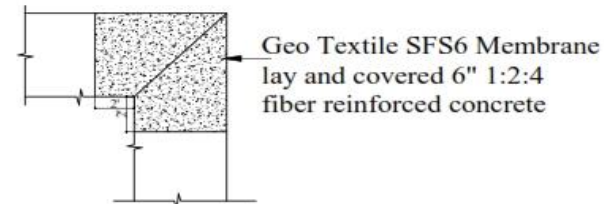


**WATER STORAGE TANK X-SECTION**

6" Poly propylene fibrillated fiber reinforced concrete for increasing strength and resilient against cracks

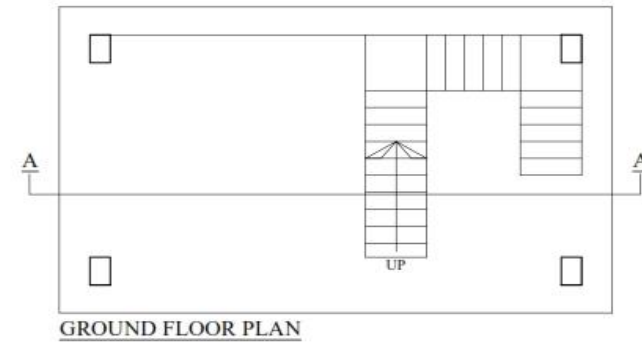
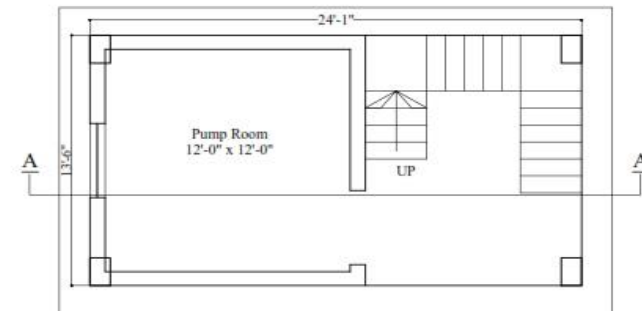
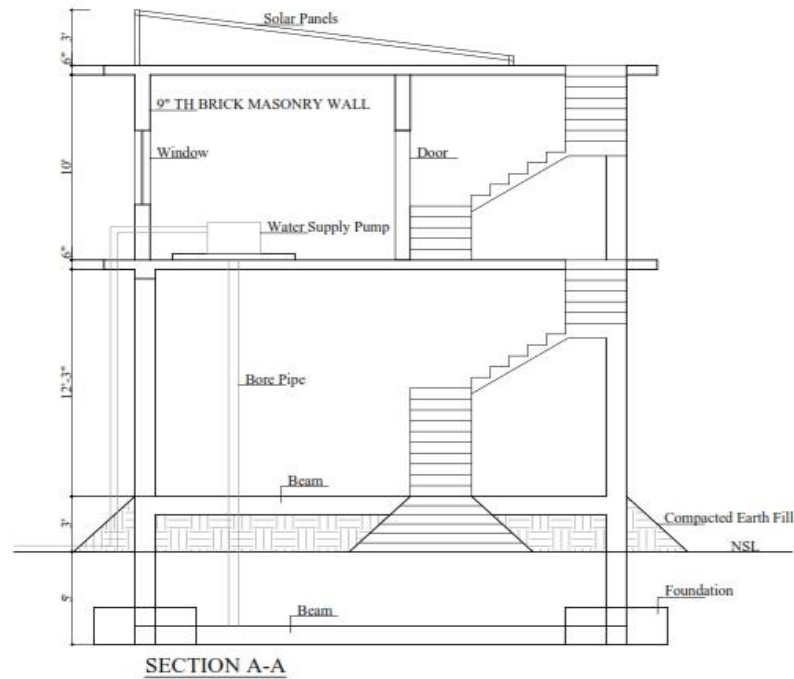




**Detail A-A**

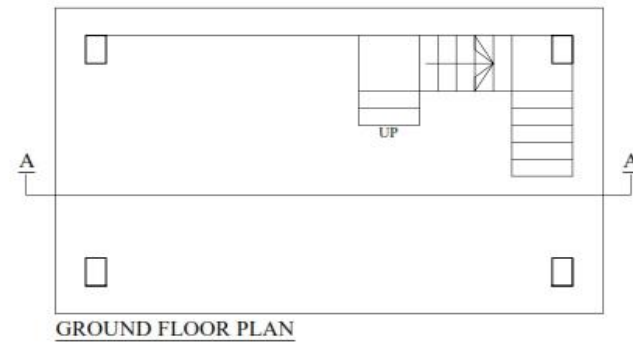
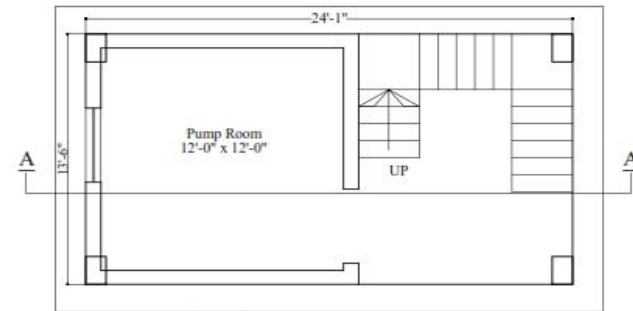
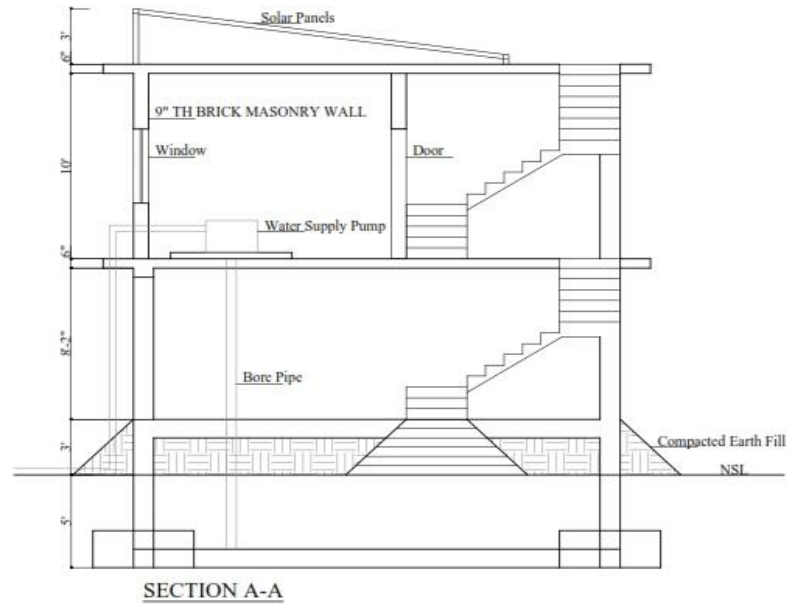




**Detail B-B**  
Joint treatment with  
Geo textile SFS6 membrane

CLIENT:	PLANNING & DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH	CONSULTANTS: <b>CAMEOS</b> CONSULTING ENGINEERS, ARCHITECTS & PLANNERS HOUSE # A-134 BLOCK L NORTH NAZIMABAD, KARACHI PH# +92-21-36630135, Email: camerosktr@gmail.com	REV. DATE DESCRIPTION APPROVED	DRAWN JAVED IQBAL SUBMITTED RECOMMENDED CHD./VER. ALI RIZWAN APPROVED	PROJECT: <b>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</b>	DRAWING TITLE: <b>EXISTING RESERVOIR X-SECTION &amp; EXPANSION JOINT DETAIL</b> DATE MARCH, 2023 DWG. NO. CC/SFERP/WST-01	SCALE NTS
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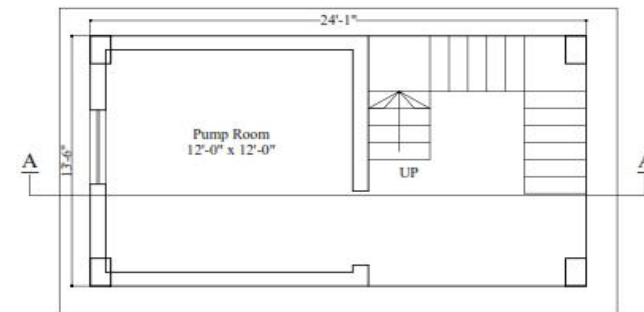
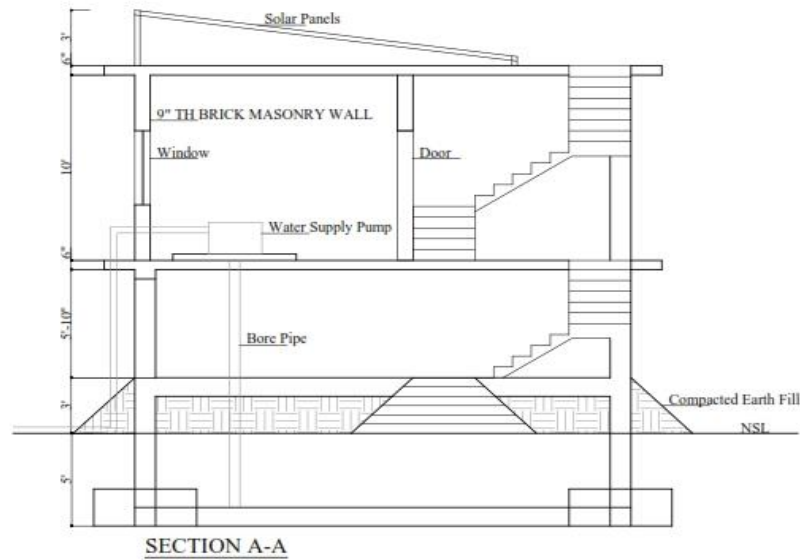


	CLIENT:  PLANNING & DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH	 CONSULTANTS:  CAMEOS CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS & PLANNERS HOUSE # 9-116 BLOCK-E, NORTH NAZIMABAD, KARACHI PHS-002-21-36640202, Email: cameoskh@gmail.com					DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:-  PLAN AND SECTION OF PUMP HOUSE	SCALE  NTS
							SUBMITTED				
							RECOMMENDED				
							CHECKED/VER.	ALI RIZWAN			
							APPROVED				
	REV.	DATE	DESCRIPTION	APPROVED	APPROVED					DATE MARCH, 2023	DWG NO. CC/SFERP/PH-01

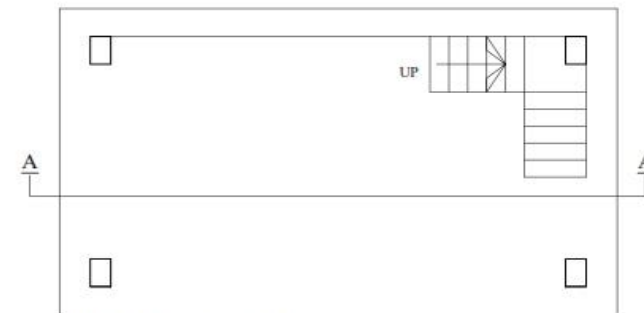


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						RECOMMENDED				
						CHD./VDR.	ALI RIZWAN			
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED				



DATE	MARCH, 2023	DWG NO.	CC/SFERP/PH-02
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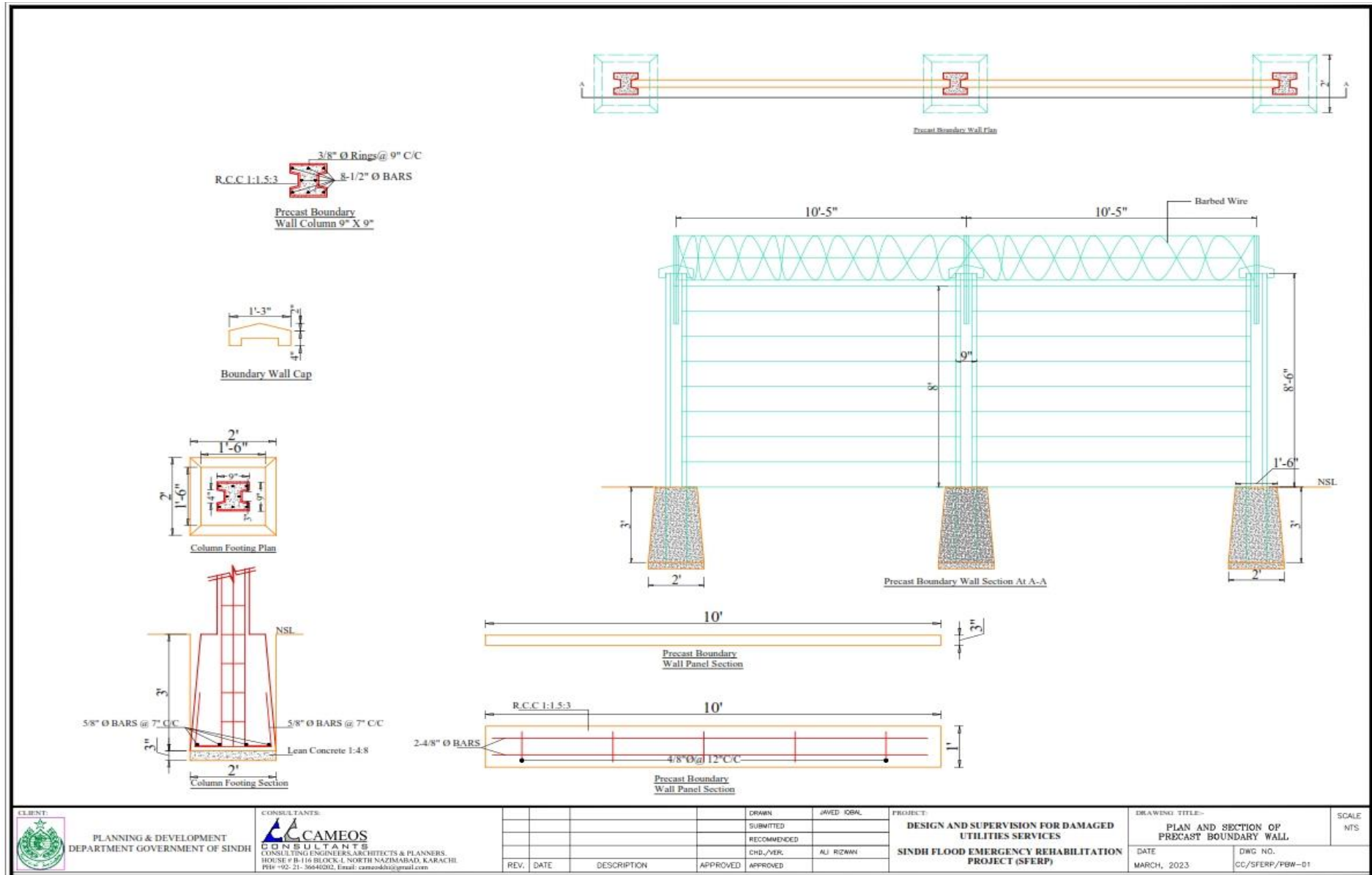


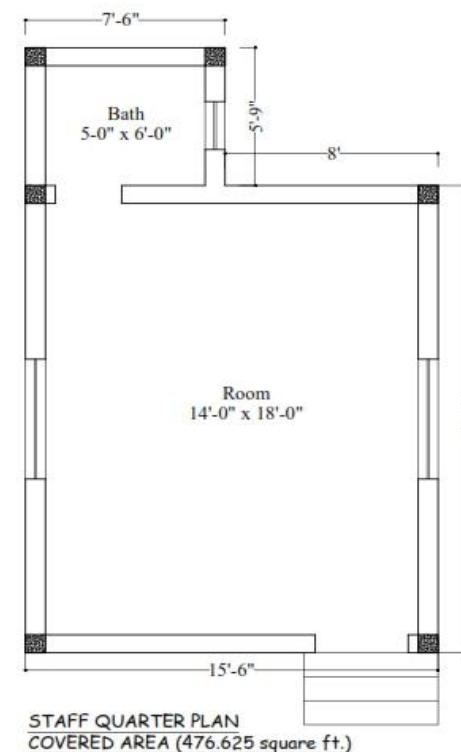
FIRST FLOOR PLAN





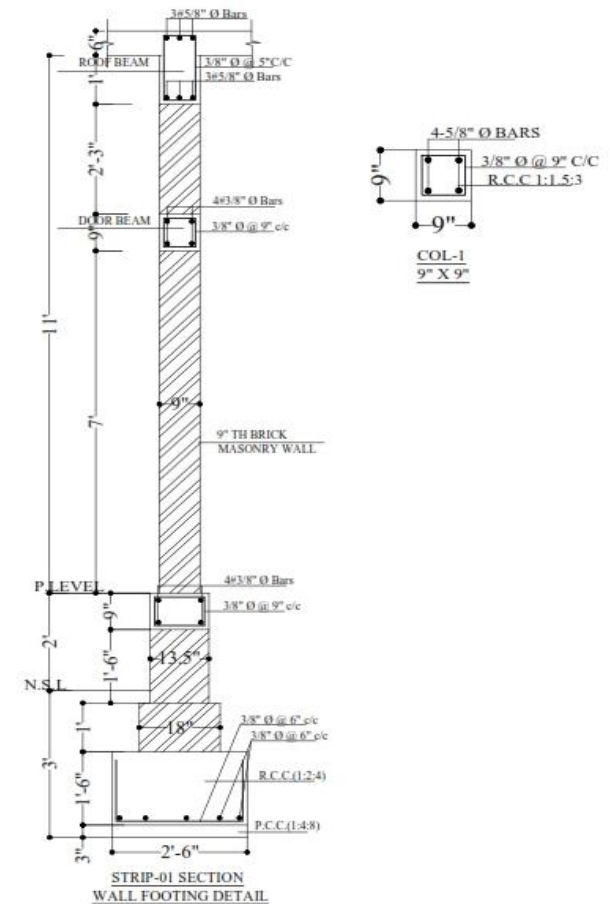
GROUND FLOOR PLAN



 <div>CLIENT: PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	<div>CONSULTANTS:  CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # B-116 BLOCK-4 NORTH NAZIMABAD, KARACHI PH: +92-21-36640202, Email: cameoskh@gmail.com</div>				DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:-  PLAN AND SECTION OF PUMP HOUSE	SCALE NTS
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					RECOMMENDED				
					CHD./VER.	ALI RIZWAN			
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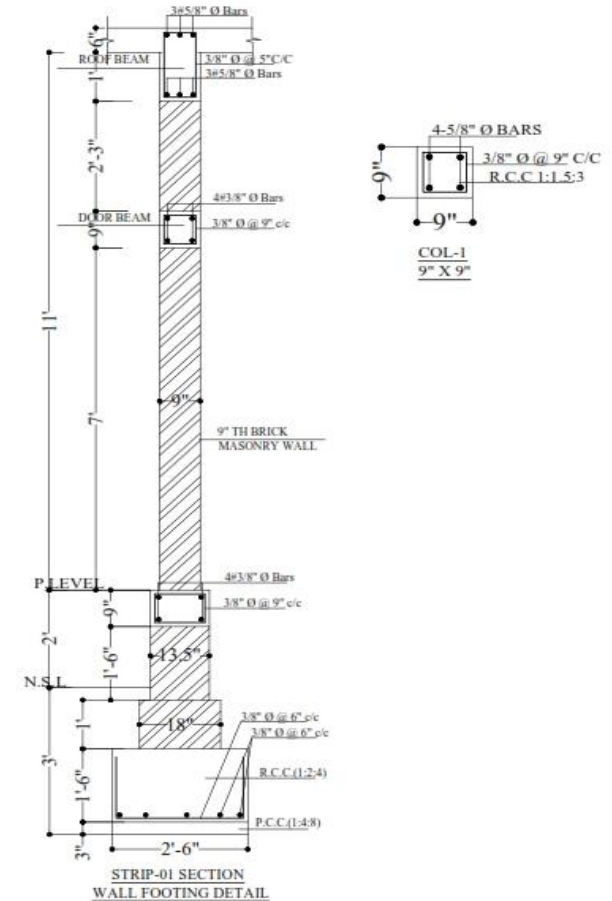
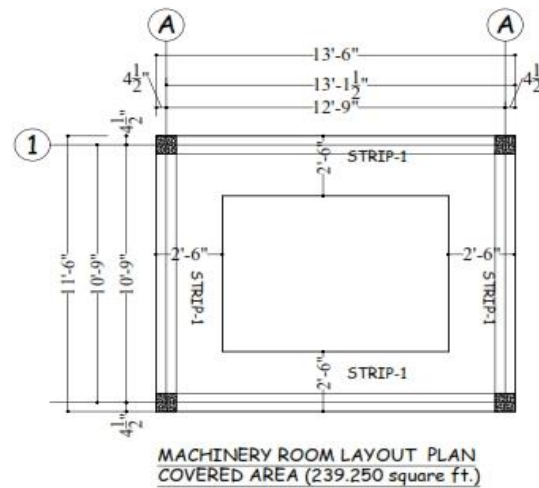
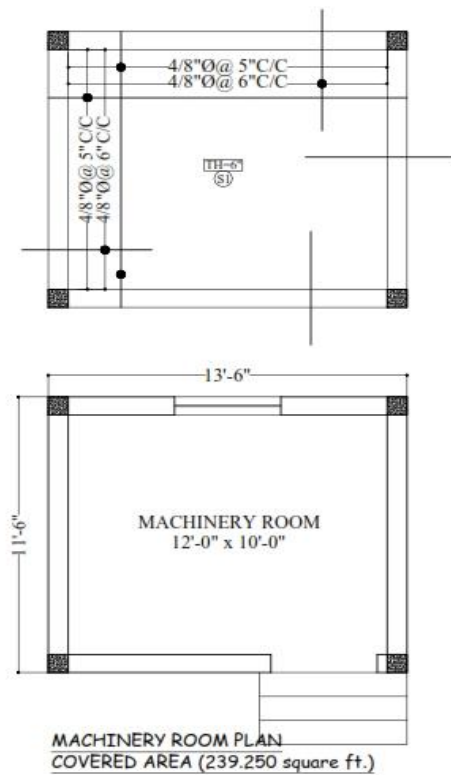




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						RECOMMENDED						
						CHK./VER.	ALI RIZWAN					
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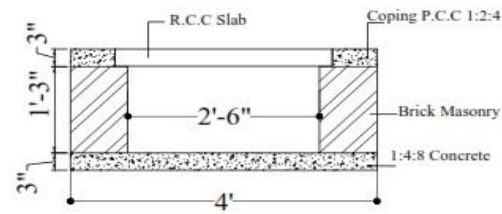


	CLIENT:  PLANNING & DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH	 CONSULTANTS:  <b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS & PLANNERS. HOUSE # B-116 BLOCK-4, NORTH NAZIMABAD, KARACHI. PH# +92-21-3660202, Email: cameoskij@gmail.com					DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:- SANITARY PLAN AND REINFORCEMENT DETAIL OF STAFF QUARTER	SCALE N/T5	
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DATE MARCH, 2023												DWG NO. CC/SFERP/SQ-02

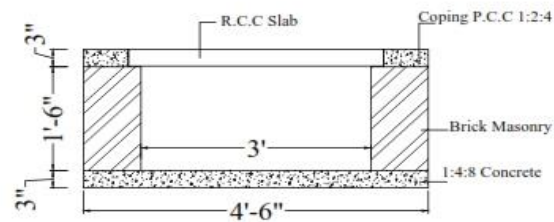




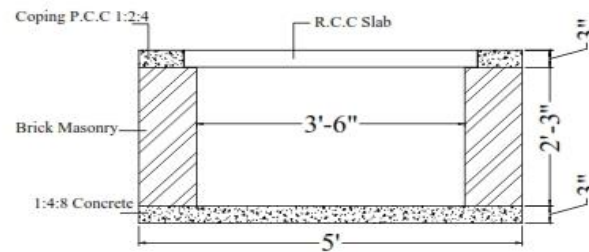
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											RECOMMENDED	
										CHD./VSR.	ALI RIZWAN	
										APPROVED		
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								DATE MARCH, 2023	DWG NO. CC/SFERP/MR-01			





Drain Type-I

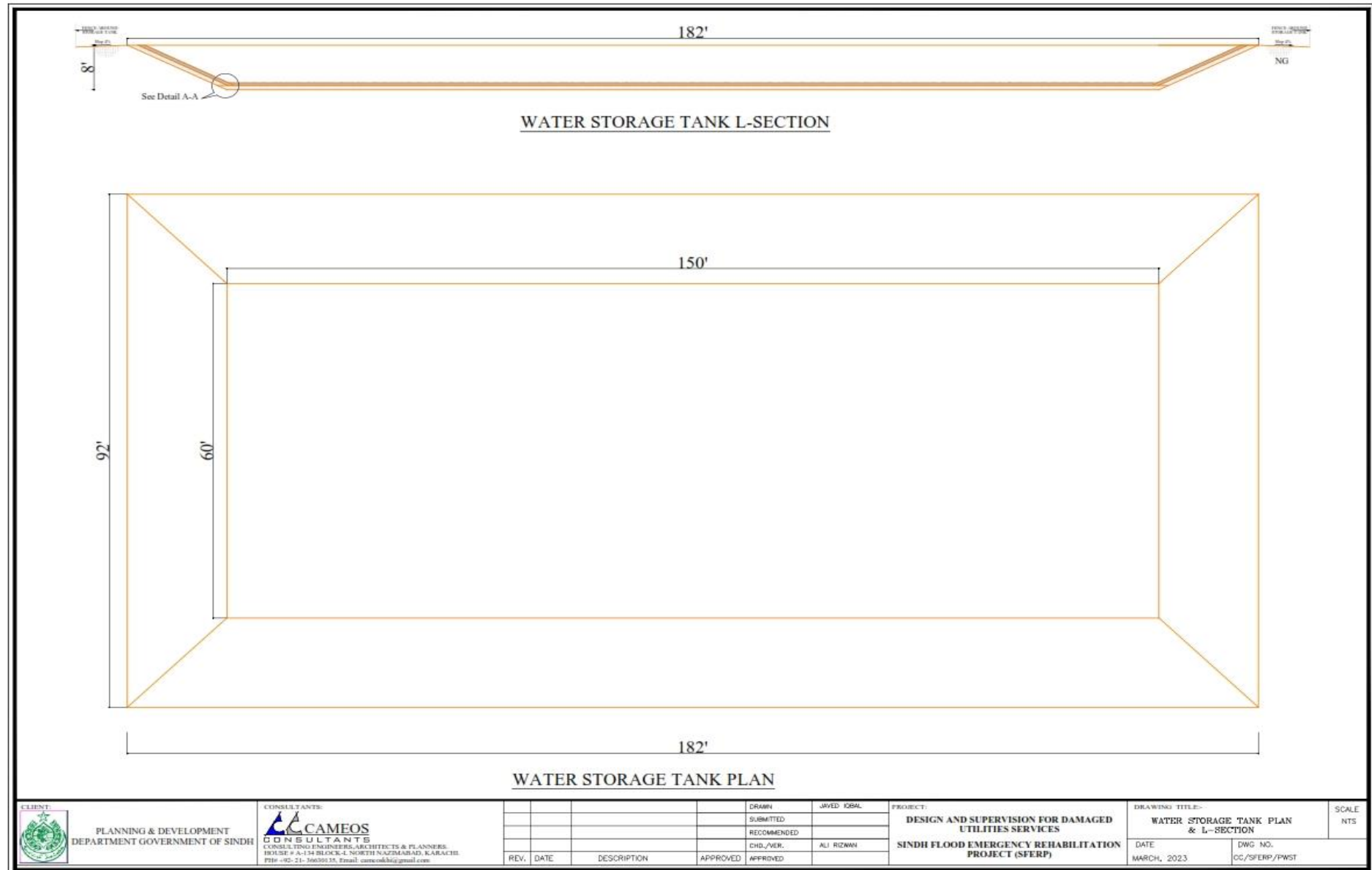


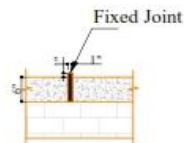
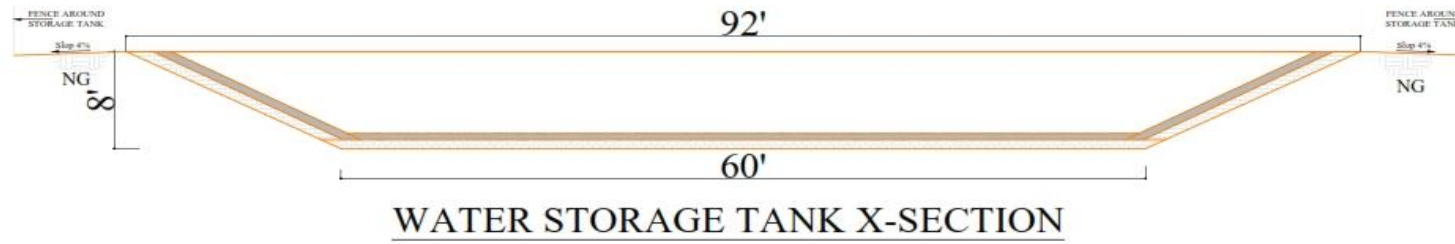
Drain Type-II



Drain Type-III

<div>CLIENT:</div> <div></div> <div>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	<div>CONSULTANTS:</div> <div></div> <div>CAMEOS CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # 9-110 BLOCK-4, NORTH NAZIMABAD, KARACHI PH# +92-21-36640202, Email: cameoskh@gmail.com</div>				DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:-  DRAIN SECTIONS	SCALE NTS
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					RECOMMENDED				
					CHD./VDR.	ALI RIZWAN			
					APPROVED				
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED		DATE MARCH, 2023	DWG NO. CC/SFERP/DS-01





### Detail of Expansion Joint

Note: Bitumastic Rubberized or Neoprene Rubber  
Fixed Joint Sealant (Fix before laying of concrete)



PLANNING & DEVELOPMENT  
DEPARTMENT GOVERNMENT OF SINDH

CONSULTANTS:

**CAMEOS**  
CONSULTANTS  
CONSULTING ENGINEERS, ARCHITECTS & PLANNERS  
HOUSE 9-A-134 BLOCK-4, NORTH NAZIMABAD, KARACHI  
PBP-002-21-36030133, Email: cameoskdg@gmail.com

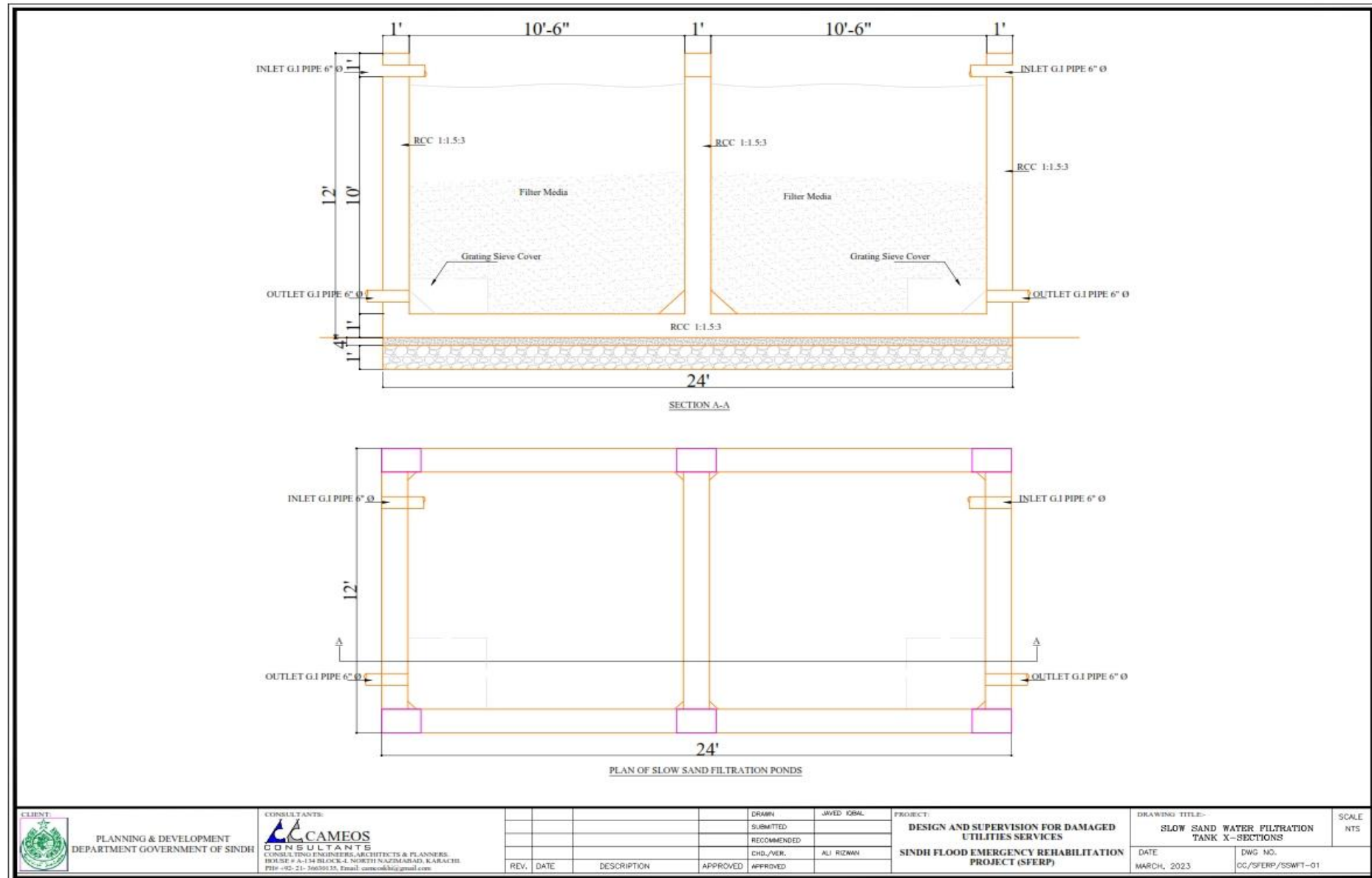
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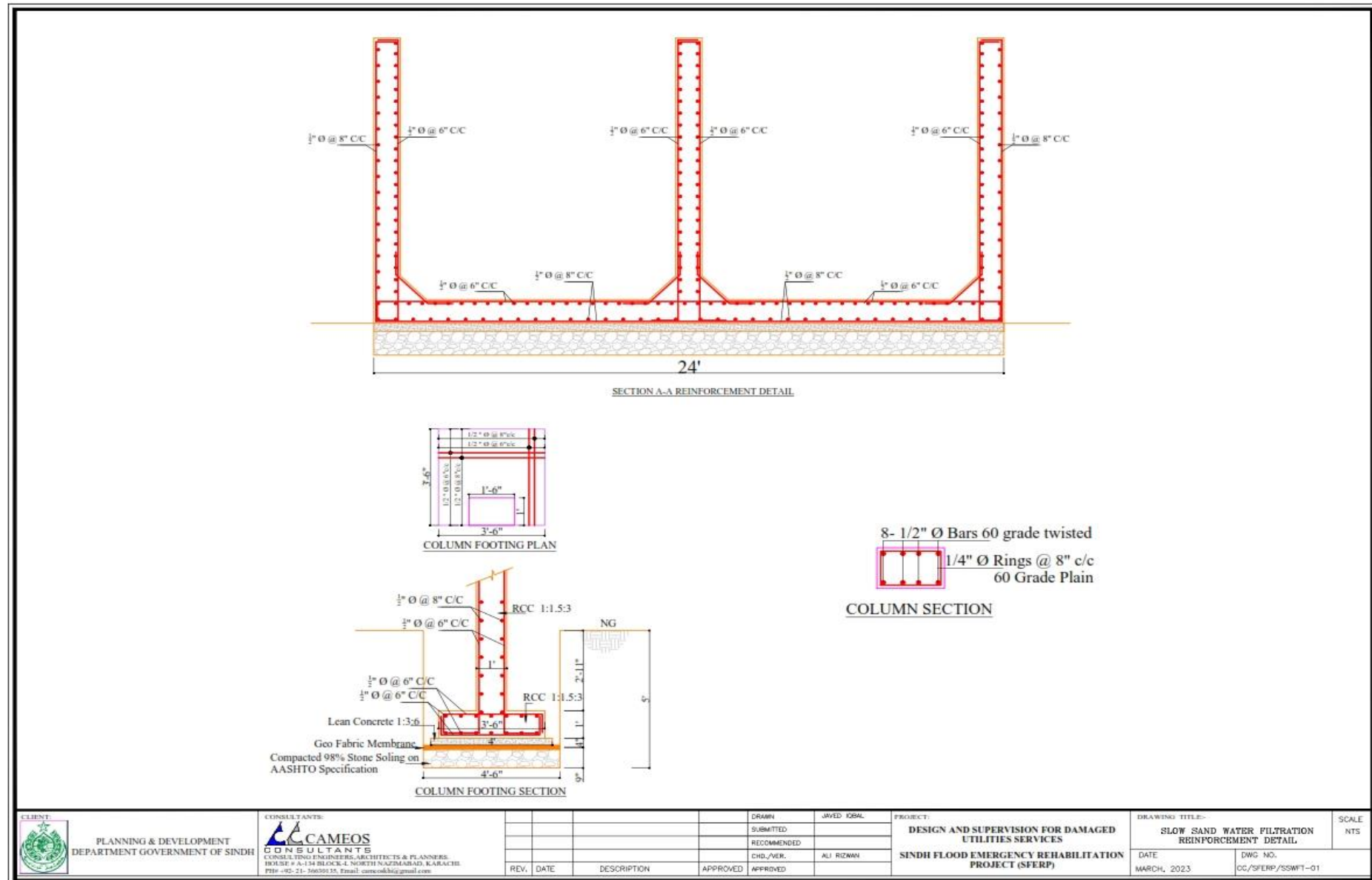
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SUBMITTED	
RECOMMENDED	
CHD./VER.	ALI RIZWAN
APPROVED	

PROJECT:  
**DESIGN AND SUPERVISION FOR DAMAGED  
UTILITIES SERVICES  
SINDH FLOOD EMERGENCY REHABILITATION  
PROJECT (SFERP)**

DRAWING TITLE:- <b>WATER STORAGE TANK X-SECTION &amp; EXPANSION JOINT DETAIL</b>	
DATE MARCH, 2023	DWG NO. CC/SFERP/WST-01

SCALE  
NTS





## **ANNEXURE 3:**

### **Attendance Sheets of Water Supply and Drainage Schemes of District Sanghar**



## Annexure 3: Attendance Sheets of Water Supply and Drainage Schemes of District Sanghar

**District - Sanghar**



**Government of Sindh**

**SFERP**  
Project Implementation Unit (PIU)

**Public Consultation on Environmental and Social Screening Report (ESSR) for Rehabilitation of Damaged Water Supply and Drainage Schemes**  
arranged by Project Implementation Unit (PIU) under Sindh Flood Emergency Rehabilitation Project (SFERP), P&DD Component, Government of Sindh


خراب ٿيل پاڻي جي فراهمي ۽ نيڪال جي اسڪيم جي بحالي لاءِ  
ماحولياتي ۽ سماجي اسڪريننگ رپورٽ تي عوامي مشاورت  
سنڌ فلڊ ايمرجنسي بحالي منصوبي (SFERP) تحت پروجيڪٽ  
امپليمنٽيشن يونٽ (PIU) پاران ترتيب ڏنل،  
P&DD جزو، حڪومت سنڌ


Location/جڳھ: **ساڻھو** Date/تاريخ: **21/08/2023** Subproject Name/سب پروجيڪٽ جو نالو: **سب پروجيڪٽ جو نالو**


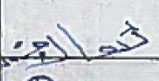
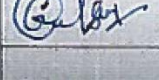
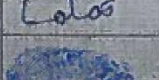

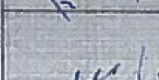

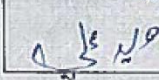
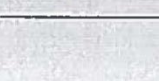
Signature/ Thumb Impression دستخط / انگوٺي جو نشان	Address: Village Name, Taluka اڳوڻو: ڳوٺ جو نالو، تعلقو	Occupation/ Profession پيشو	CNIC No./ Mobile No. CNIC نمبر / موبائيل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سريٽل نمبر
	ڳوٺ ميرنگا، تعلقو سجودو	ڀاڙو (مڻا)	44205-8173376-5	سجودو	سجودو	1.
	ڳوٺ ميرنگا، تعلقو سجودو	ڀاڙو (مڻا)	44205-8251734-4	محرمتيف	لال خاتون	2.

Page 1 of 6





**دکن مہرٹا منجھورو**  
 Government of Sindh


  
 Project Implementation Unit (PIU)




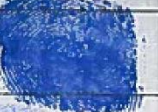




Signature/ Thumb Impression	Address: Village Name, Taluka	Occupation/ Profession	CNIC No./ Mobile No.	Fathers Name	Name	Sr. No.
دستخط / انگولي جو نشان	اٽڪريين: ڳوٺ جو نالو، تعلقو	پيشو	CNIC نمبر / موبائل نمبر	پيءُ جو نالو	نالو	سيريئل نمبر
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	دکن مہرٹا منجھورو	دوکاندار	44205-4700817-7	يعين	ذوالحسن	.4
	" " "	دوکاندار	44205-0497432-3	محمد عابد	گل نشتر	.5
	" " "	دوکاندار	44205-8450771-1	صائبو	لالو	.6
	" " "	يادگار	44205-9304569-8	ذوالفقار	ذوالقادر	.7
	" " "	يادگار	44205-8661921-9	ولي محمد	عبدالجليل	.8
	" " "	يادگار	44203-7657335-7	محمد بخش	حامد علي	.9
	" " "	منجھوري	44205-6796497-7	محمد حسن	حوسد محمد	.10
	" " "	دوکاندار	44205-4156277-3	محمد صالح	محمد علي	.11

Page 2 of 6





**گورنمنٹ سندھ**  
 Government of Sindh


**SFERP**  
 Project Implementation Unit (PIU)


Signature/ Thumb Impression	Address: Village Name, Taluka	Occupation/ Profession	CNIC No./ Mobile No.	Fathers Name	Name	Sr. No.
دستخط / انگوتی جو نشان	اٹکریس: گوت جو نالو، تعلقو	پیشو	CNIC نمبر / موبائل نمبر	پيءُ جو نالو	نالو	سیریل نمبر
	جھول سائمن	ٹیلر	44203-0444662-4	افتخار احمد	مادھی	.12
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	" " "	یادی	44303-3074597-6	الود علی	نصیر ناز	.14
Gihulam Gose	" " "	سکان	44203-8186764-1	الطاف حسین	قلام غوث	.15
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	" " "	یادیں داف	44203-5018629-6	صاحب خان	صغیر	.19
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Page 3 of 6

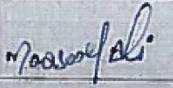
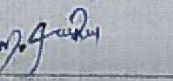
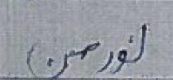

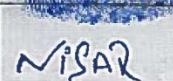

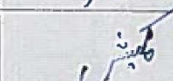





حکومت سندھ
شہید آباد منڈل

Government of Sindh



Project Implementation Unit (PIU)

Signature/ Thumb Impression	Address: Village Name, Taluka	Occupation/ Profession	CNIC No./ Mobile No.	Fathers Name	Name	Sr. No.
دستخط / انگوتی جو نشان	اٹکریس: ڳوٺ جو نالو، تعلقو	پيشو	CNIC نمبر / موبائل نمبر	پيءُ جو نالو	نالو	سیریل نمبر
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	" " "	دکاندار	44204-15507635	امام الحق	محمد عمران	.22
	" " "	دکاندار	44204-0147661-9	غلام محمد	لقد حسن	.23
	" " "	دکاندار	44204-89996385-3	احمد خان	محمد عتیق	.24
	" " "	دکاندار	44204-2133173-5	عبدلحمید	نثار حسین	.25
	" " "	دکاندار	44204-1491885-5	نیش محمد	محمد ادیش	.26
	" " "	دکاندار	44204-5357421-5	نیش محمد	علیش	.27
	" " "	دکاندار	44204-2012126-3	یوسف	محمد یونس	.28
	" " "	دکاندار	44204-0502941-1	لالو	علیش	.29





Government of Sindh

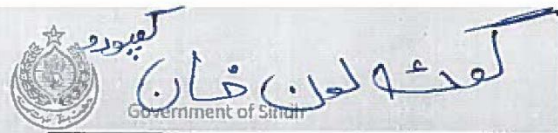
شماره ۲ مائیکر



Project Implementation Unit (PIU)

Signature/ Thumb Impression	Address: Village Name, Taluka	Occupation/ Profession	CNIC No./ Mobile No.	Fathers Name	Name	Sr. No.
دستخط / انگوٹی جو نشان	انگریز: گوت جو نالو، تعلقو	پیشو	CNIC نمبر / موبائل نمبر	پيءُ جو نالو	نالو	سیریل نمبر
	عالم ماروچی شندور	دکاندار	44206-2830333-5	لالہ اذلالہ	دلبر خان	.30
	" " "	یادگار	44206-8497972-3	علی محمد	سجاد علی	.31
	" " "	منزوری	44206-3633666-1	صالح گوہر	شہاد علی	.32
	" " "	یادگار	44206-9663925-7	اللہ بچا ایو	اشاد علی	.33
	" " "	یادگار	44206-1802938-7	گلانی	غلام علی	.34
	" " "	منزوری	44206-6940937-7	علی ذوالف	محمد سعید	.35
	" " "	سان	442067968349-1	ابراہیم	محمد علی	.36
	" " "	منزوری	44206-7836708-9	نشین احمد	نشین احمد	.37
	" " "	دکاندار	44205-8323874-5	صانیہ	دکھن	.38





Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوٹی جو نشان	Address: Village Name, Taluka اٹکریس: گوت جو نالو، تعلقو	Occupation/ Profession پیشو	CNIC No./ Mobile No. CNIC نمبر / موبائل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سیریل نمبر
علی اکبر	لون خان کپورہ	دکان دار	44202-4528766-3	محمد عثمان	علی اکبر	.39
ا/ا	" " "	یادی	44202-5707470-1	کرشن	یلال	.40
علی احمد	" " "	دکان دار	44202-8090237-5	غلام عباس	علی احمد	.41
Asif	" " "	یادی	44202-5003369-9	محمد شفیع	عاصف	.42
	" " "	یادی	44202-3421032-9	سارو	سرمو	.43
	" " "	دکان دار	44202-0133244-9	سرمو	ولیب اکار	.44