REPUBLIC OF IRAQ

MINISTRY OF PLANNING

Iraq "Social Fund for Development" Project
(SFDP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
(ESMP)

FOR THE
UPGRADING AL AKSHEH WATER SUPPLY STATION AND CONSTRUCTION OF AL TAWAWREH WATER SUPLLY STATION

IN
AL-MUTHANNA GOVERNORATE

8TH FEBRUARY 2020

Table of Contents

List of Figures

List of Tables

List of Abbreviations

CDGs	Community Development Groups
ESMP	Environmental and Social Management Plan
EHS	Environmental, Health, and Safety
ESMF	Environmental and Social Management Framework
GIIP	Good International Industry Practice
GOI	Government of Iraq
GRM	Grievance Redress Mechanism
GBV	Gender Based Violence
MOE	Ministry of Environment
MOP	Ministry of Planning
MSDS	Material Safety Data Sheets
OP	Operational Policy
PAPs:	Project Affected Peoples
PMO	Project Manager Office
PPE	Personal Protective Equipment
RE	Resident Engineer
SFD	Social Fund Development
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

INTRODUCTION	This ESMP is prepared in accordance to the ESMF requirements of the SFD project. The main objective of the ESMP is to assess the environmental and socio-economic impacts of the subprojects (during construction and operation phases) and to propose mitigation measures to mitigate the impacts associated with subproject. This subproject includes upgrading Al Aksheh water supply station and construction of Al Tawawreh water supply station in Al-Muthanna governorate. These water supply stations are expected to result in significant socio-economic benefits for the local communities and surrounding areas as it will provide potable water to these villages where Al Akshe village suffer from sever lack in the quantity of treated water and the other village (Al Tawawreh) has no water supply station in the village and in both villages they purchasing water in bottles or from water tankers to achieve their daily requirements and therefore it will protect public health.	
PROJECT DESCRIPTION	The subproject consists of upgrading Al Aksheh water supply station and construction of Al Tawawreh water supply station in Al-Muthanna governorate. The upgrading of Al Aksheh water supply station will include increasing the capacity from 14m^3/h to 50 m^3/h. In Al Tawawreh village the subproject will include construction of a new 100m^3/h water supply station. The construction and upgrading activities will need about 20-30 worker per day for each site. Workers are expected to be hired locally, however if a construction camp is deemed necessary, it will be installed on vacant state-owned land. Also, equipment and construction materials will be stored on vacant state-owned land. The anticipated duration of all works is around 180 days for both sites including mobilization and demobilization of contractor.	
ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS	Climate	Al-Muthanna governorate is located in the southern part of Iraq, which has an arid climate. The major rain, is about 106 mm yearly, falls during the period December thru March, with a spread showering in April. The average annual temperature is 23.8 °C. The average monthly wind velocity is 2.3m/s. Distributaries of Euphrates River will be the water source that will be used for these water supply station which has a turbidity ranging from 16 - 30 NTU, and TDS from 1700- 3500mg/l
	Air quality	The ambient air quality is within normal range.
	Land	No additional land for the work is needed to proceed with these subprojects.
	Biodiversity	No protected areas or endangered species (there is no critical or high biodiversity values that might be affected) in the vicinity of the sites.

<table>
<tr><td></td><td>Culture heritage</td><td colspan="2">The sites adjacent areas do not include any historical or cultural sites.</td></tr>
<tr><td rowspan="2">POLICY AND LEAGAL FRAMEWORK</td><td colspan="2">Applicable Iraqi laws</td><td>Applicable WB Policies</td></tr>
<tr><td colspan="2">• Law no. 37 of 2008 MoE roles and responsibilities.
• Law no. 27 of 2009 Protection of Environment
• Regulation 2 of 2001 Preserving water resources
• Law No.3,1997 Environment protection
• Law No. 55. 2002 Heritage and antiques</td><td>• OP 4.01 Environmental Assessment
• OP 4.12 Involuntary Resettlement
• OP 4.11 Physical and Cultural Resources
• BP 17.50 Disclosure of Operational Information.
• WB General Environmental, Health, and Safety guideline.
• Grievance Redress Service</td></tr>
<tr><td rowspan="12">ENVIRONMENTAL AND SOCIAL IMPACT ANALYSIS</td><td colspan="2">• Environmental Receptor</td><td>Impact Significance</td></tr>
<tr><td colspan="2">Air Quality</td><td>Medium</td></tr>
<tr><td colspan="2">Noise</td><td>Medium</td></tr>
<tr><td colspan="2">Water Resources</td><td>Low</td></tr>
<tr><td colspan="2">Soil</td><td>Low</td></tr>
<tr><td colspan="2">Solid and hazardous wastes</td><td>Low</td></tr>
<tr><td colspan="2">Flora & Fauna</td><td>Not significant</td></tr>
<tr><td colspan="2">Topography and landforms</td><td>Not significant</td></tr>
<tr><td colspan="2">Impacts on local traffic</td><td>Not significant</td></tr>
<tr><td colspan="2">Health and Safety</td><td>High</td></tr>
<tr><td colspan="2">Socio-Economic impacts</td><td>Low</td></tr>
<tr><td colspan="2">Child Labor</td><td>Medium</td></tr>
<tr><td>PUBLIC CONSULTATION RESULTS</td><td colspan="3">Two modalities of consultations were carried out for these subprojects. Public consultation was conducted in these villages with men only due to the tribes' habit where 24 participants attended. The second approach was one-to-one interviews with both men and women to have their views and concerns of potential impacts during implementation. The number of individuals interviewed was 9 women and 10 men.</td></tr>
<tr><td>GRIEVANCE REDRESS MECHANISM</td><td colspan="3">The SFD is in the process of establishing a free hotline and is expected to be functioning within the next few months. Meanwhile, in order to comply with the WB requirements, SFD has temporary assigned three staffs as focal points with their cell phone numbers to be disseminated at each road site for receiving calls and handling complaints. The contact details will be posted at site signboard and the complaint boxes will be installed in each location.</td></tr>
</table>

Main Report

1. INTRODUCTION

According to the Environmental and Social Management Framework (ESMF) which was prepared for the Social Fund for Development project (SFDP) and disclosed locally and on the WB website, an Environmental and Social Management Plan (ESMP) should be prepared, cleared and publically consulted upon and disclosed prior to the commencement of any construction activities for all the subproject's components.

This ESMP was developed to identify, assess and mitigate the environmental and social risks and impacts associated with the upgrading Al Aksheh water supply station and construction of Al Tawawreh water supply station within Al-Muthanna governorate.

The ESMP was prepared by an independent consultant according to requirements of the World Bank (OP 4.01), and Iraqi regulations. The ESMP should be implemented by all relevant parties.

The objectives of this ESMP are to:

- Provide practical and achievable actions to ensure that the subprojects adverse environmental and social impacts are properly avoided or mitigated.
- Illustrate the institutional arrangements for implementing and monitoring the mitigation actions
- Integrate community views and input on the environmental and social impacts of these subprojects
- Comply with WB and national requirements
- Provide information to the local community on the subprojects activities, the associated risks and impacts, mitigation measures and Grievance Redress Mechanism (GRM) system.

2. PROJECT DESCRIPTION

These subprojects involve the upgrading of water supply station from 14- 50 m^3/h and construction of Al Tawawreh water supply station with a capacity of 100m^3/h. these subprojects are located in the Governorate of Al-Muthanna Southest of Iraq. These water supply station will serve **Al Tawawreh and Al Aksheh** villages (about 30Km distance between them). One of these villages suffer from sever lack in the quantity of treated water and the other village (Al Tawawreh) has no water supply station in the village and they purchasing water in bottles or from water tankers to achieve their daily requirements. Al Tawawreh and Al-Akesh villages are situated on the banks of tributaries of Euphrates River as shown in the figure below:

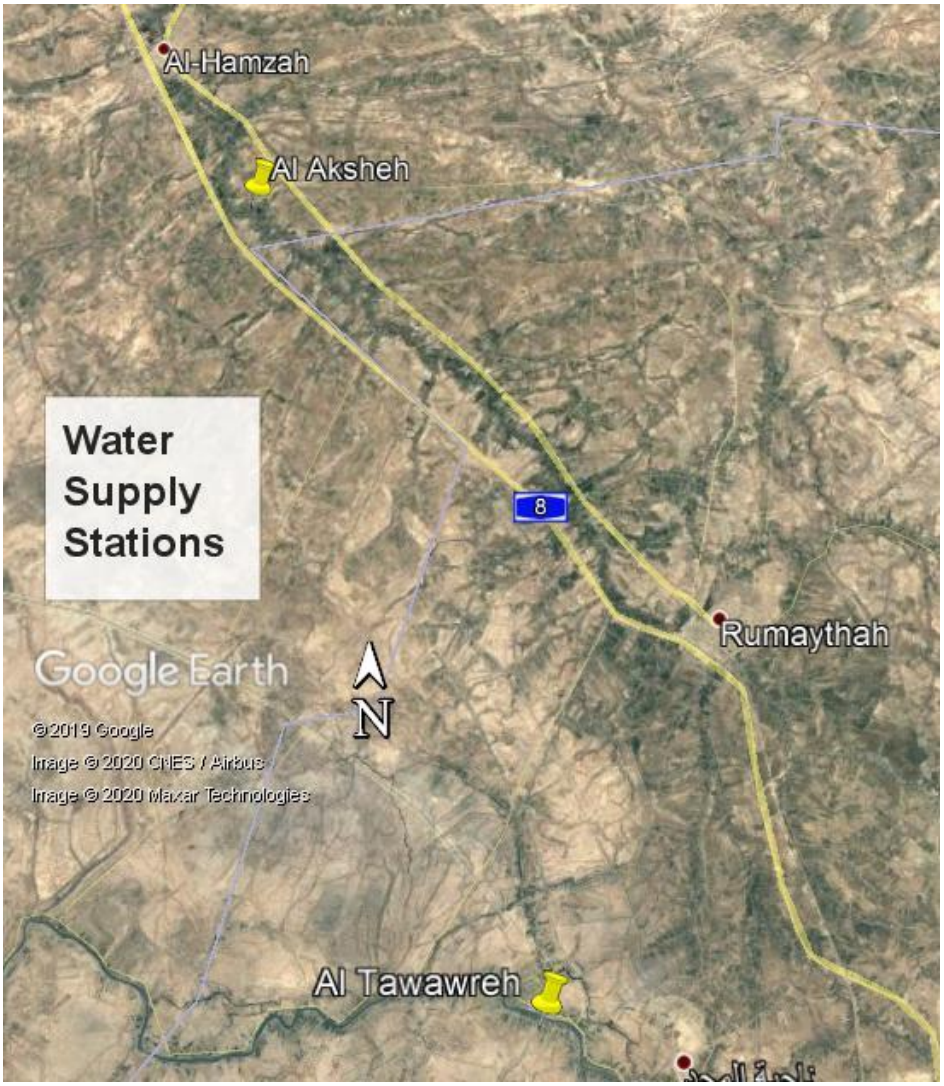


Figure 1: location of the two villages (google earth)

2.1 Objective of the Works

The objective of these two subprojects is to upgrade of water supply station and construction of a new water supply station. These water supply stations are expected to result in significant socio-economic benefits for the local communities and surrounding areas as it will provide potable water (therefore it will protect public health) to these villages where the residents rely almost exclusively on the water delivered by water tankers for drinking purposes which poses additional financial burden on household.

2.2 Scope of Work

The capacity of Al Tawawreh water supply station will be 100 m^3/h , while Al-Aksheh Water supply station will be upgraded from 14- 50m^3/h. The water supply stations will take their row water from the river close to each village where are they tributaries of Euphrates River. The treated water will be delivered by a pipeline and then to the costumers via a water distribution

network that will be constructed that have their own ESMP which was already prepared. The water treatment process that will be used started from taking the water via the intake from the river a to the rapid mixing tank where the alum will be added, the followed by the coagulation tank and then, he sedimentation tanks. After settling the water will enter the filtration process where the filter water enter to the last stage which is disinfection before pumping to the consumers. The construction works will include the following activities:

For Upgrading of Al Aksheh Water station:

Al Aksheh water supply station which has a capacity of 14m^3/h suffer from damages from all the main components in addition to the deterioration for most of it's pipes valves and fittings as shown in the figure below. Moreover the capacity is not adequate to the demand of the population of the village. Therefore for the upgrading, the work will include the following:

1- Removing the dirt and debris out of the site so that the site is ready for planning and work.
2- Preparing materials of subbase layers with a compaction of not less than 95% for each layer.
3- Preparing materials and pouring concrete 30 cm thickness to the base of the compact unit and the backwash water of the filters and the channels for returning the back wash water to the river.
4- Supplying materials and installing a 50m3 / h water compact unit, with all pipes connecting and fittings according to the technical specifications prepared by the General Directorate of Water.
5- Construct of intake structure to install the two low lifting pipes with a diameter of 150 mm and connect the pipes with the sedimentation tank. The width of the intake structure is 2.5m and a steel walkway is made along the structure with a width of 1 m with a height of 1 m guard rail on both sides of the walkway according to Technical Specifications.
6- Supplying and installing an overhead electrical transformer of 400K.V.A capacity with an electrical cutter of 400K.V.A capacity and poles and its accessories, according to the specifications of the Electricity Distribution Directorate. It is important to mention the electricity transmission line is about 25m from the proposed location of the transformer.

Figure 2: Current Situation of Al Aksheh water supply station)

For Al Tawawreh Water station:

1- Removing the dirt and debris out of the site so that the site is ready for planning and work.
2- Preparing materials of subbase layers with a compaction of not less than 95% for each layer.
3- Preparing materials and pouring concrete 30 cm thickness to the base of the compact unit and the backwash water of the filters and the channels for returning the back wash water to the river.
4- Supplying materials and installing a 100m3 / h water compact unit, with all pipes connecting and fittings according to the technical specifications prepared by the General Directorate of Water.
5- Construct of intake structure to install the two low lifting pipes with a diameter of 150 mm and connect the pipes with the sedimentation tank. The width of the intake structure is 2.5m and a steel walkway is made along the structure with a width of 1 m with a height of 1 m guard rail on both sides of the walkway according to Technical Specifications.
6- Construct an administration and operation building which include all the construction activities from the base to , built with bricks, concrete slab, tiling, painting, sanitary and electrical works.
7- Construct the fence for the project.
8- Supplying and installing an overhead electrical transformer of 400K.V.A capacity with an electrical cutter of 400K.V.A capacity and poles and its accessories, according to the specifications of the Electricity Distribution Directorate. It is important to mention the electricity transmission line is about 25m from the proposed location of the transformer.

The anticipated duration of construction works is about 180 days with about 25-30 workers per day with about 95% of them are local workers and the rest are engineers and technicians that may be from the closest area.

2.3 Contractors Camp and Storage of Equipment

The upgrading works will imply the setup of camps in the area within each water supply station if needed. The setup of camps will be established on vacant state-owned lands (Annex 4) for storage of equipment and construction materials. The work activities will need about 20-30 local workers per day for each site. If there are non-local workers, these workers will need to have their accommodation facilities in the camp, during the construction phase.

3. BASELINE CONDITIONS

3.1 The Project Area

The subproject is located in the governorate of Al-Muthanna that is situated in southern part of Iraq, Al-Muthanna borders Saudi Arabia and shares internal boundaries with the governorates of Basra, Thi-Qar, Al-Qadisiyah, and Al-Najaf (as shown in figure 2 below). The proposed location of these water supply station will be in an open area.

The population in each village is shown in the table below:

Table 1: Information about the villages

No.	Village	Population
1	Al Aksheh	1173
2	Al Tawawreh	1534

Figure 3 Map of Iraq on the right and Al-Muthanna governorate on the left.

These subprojects are located in flat areas. The area adjacent to the project sites is characterized as rural residential and semi desertic to agricultural in some area as shown in the figuers below:

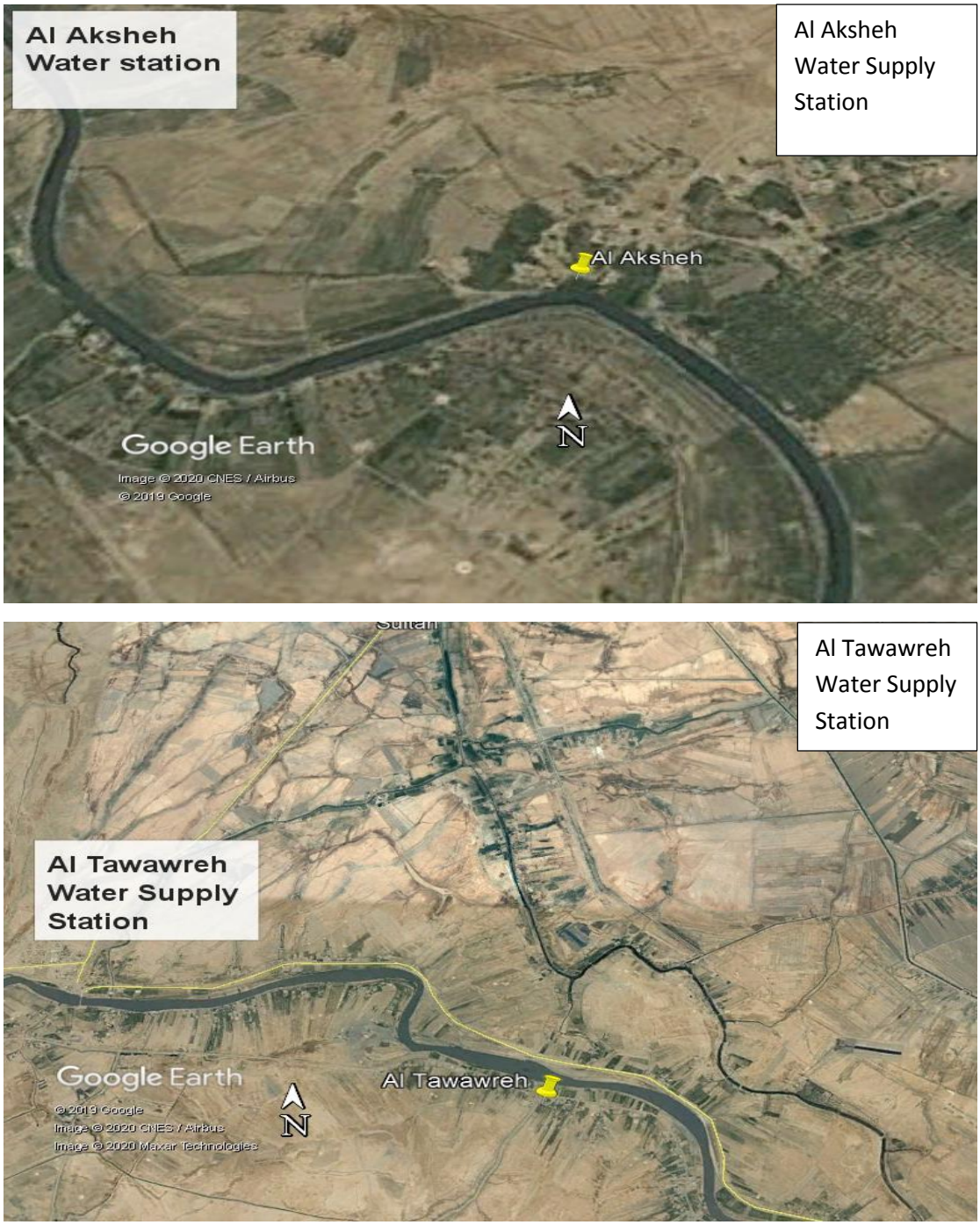


Figure 4 : location of the two **water supply station**

3.2 Environmental and Social Baseline Conditions

The environmental baseline section is presented to give clear overview of the environmental and social conditions in the vicinity of the subproject location prior to commencement of works.

3.2.1 Climate

Al-Muthanna governorate is located in the southern part of Iraq. The governorate's landscape is dominated by desert plains, with only a narrow ribbon of

irrigated farmland along the Euphrates River in the north. The major rain falls during the period December thru March, with a spread showering in April. During the year, about 106 mm of precipitation falls annually. In summer temperatures easily surpass 40°C, the average annual temperature is 23.8 °C. The driest weather is in June, July & August, September when no rainfall (precipitation) occurs. While, the wettest weather is in December - March when rainfall (precipitation) occurs. The average monthly wind velocity is 2.3m/s.

3.2.2 Air Quality

The subproject sites are located in open areas, so the expected concentration of air pollutants is low. Air pollutants in the villages are caused mainly from movement of vehicles and trucks. Therefore, the ambient air quality is expected to be within the WHO ambient air quality standards.

3.2.3 Site Topography and location

No natural land obstacles are presented in the subproject areas. The subproject areas are free of mountains, cliffs, and valleys. There are no protected areas or endangered species (there is no critical or high biodiversity values that might be affected) in the vicinity of the sites (more than 2 Km).

3.2.4 Land use

The area adjacent to the project sites is characterized as rural residential and semi desertic to agricultural in some area. However, the rehabilitation activities will not cause an impact on agricultural are or make any crop damage.

3.2.5 Water Resources and Flooding

The Euphrates river and its distributary will be used as a source of the raw water for the water supply station. The physical characteristics of one the river water is turbidity which is ranging from 16-30 NTU, and TDS from 1700-3500mg/l. There are no records of flooding that occurred previously in the area.

3.2.6 Noise

Currently, there is no traffic congestion and consequently the existed noise level is within the normal levels.

3.2.7 Heritage Environment

There are no sites of historical or cultural importance in the area. There are no cemeteries, historical-cultural monuments, churches, mosques near the project that need to be removed or will be impacted due to the rehabilitation activities.

3.2.8 Traffic Level

No traffic problem or traffic congestion will be expected during the construction phase or in the operation phase.

3.2.9 Land acquisition

The existing water supply station is built on state land and hence there are no issues related to land acquisition. In addition, and the proposed will be constructed on state land. The implementation activities will not cause relocation of people and any individuals.

3.2.10 Social Aspects

The existed and the suggested locations of the water supply station will be on state land, where no land or property expropriation will be necessary. All the areas around the sites remain clear of any settlement or economic use and are ready for construction works, no interference is registered from the local community which is eager for the works to be completed. It is important to mention that during the implementation of the water supply station, it is not expected to cause restriction of access or livelihood impacts.

4. LEGAL ASPECTS

4.1 Iraqi environmental legislations

During rehabilitation and operation phases of the project, the work must follow the Iraqi laws and regulations for the environmental standards. These are:

1. Laws of the environment protection No.3 issued in 1997 and its relevant published regulations. No environmental regulations for gaseous emissions, noise and other air pollution standards are in force and legally binding. However, limits for water disposal in any surface waters and main sewers are regulated according to the regulations no. (25)/1967 and their update modifications released from the Ministry of Health (MOH) and the Ministry of Environment.
2. New environmental framework Law No. 27 of 2009 by the Iraqi National Government was introduced but the executive decrees remain to be prepared. There are as yet no formally adopted requirements for environmental assessment.
3. Regulations governing contact with archaeological sites extend also to encompass developmental activities like road construction and rehabilitation wherever these developmental activities lie within archaeological vicinity.
4. Regulations of the MOE on sanitary waste must be followed, and for the rubbles (construction & demolition waste) the regulations, legislations and instruction of both MOHE and MOCHPM.

Table 2: Applicable Laws and Regulations in Iraq

Law	Subject

Law no. 37 of 2008 for Ministry of Environment	Describes institutional arrangements of the Ministry of Environment and Outlines policies and roles and responsibilities toward protecting the environment.
Law no. 27 of 2009	Protection and Improvement of Environment Environmental protection from pollution resulted from petrol and natural gas extraction
Regulations no. 2 of 2001	Preserving water resources.
Law no. (55) Issued in 2002	Law of heritage and antiques
Law No. 37 of 2015.	Labor Law No. 37 of 2015.

For legal aspects, the work during construction and operation must follow the Iraqi laws and regulations for the Environmental Standards. These are laws of the environment protection No.3 issued in 1997 and the published regulations. No environmental regulations for gaseous emissions, noise and other air pollution standards are in force and legally binding. However, limits for water disposal in any surface waters and main sewers are regulated according to the regulations no. (25)/1967 and their update modifications released from the ministry of health and the ministry of the environment. Law of heritage and antiques no. (55) Issued in 2002, while for a sanitary waste (municipal) the regulations of the MOE must be followed, and for the rubbles (construction &demolition waste) the regulations, legislations and instruction of both MOHE and MOCHPM must be followed. It is important also to mention that, the contractor will sign employment agreement with all construction workers by following labor law of Iraq.

It should be noted that legislation relating to social safeguards issued in Iraq since 2003 has focused primarily on the ratification of international conventions and protocols on issues such as cultural heritage. As yet there are no formally adopted requirements for social assessments relating to road works. Hence, social safeguards issues remain very largely uncovered except to the extent they are referred to under environmental laws.

4.2 The World Bank Safeguards Policies

In addition to the Iraqi laws and regulation the ESMP follows key policies and procedures of the World Bank; the following section presents the WB operational policies relevant to the rehabilitation and reconstruction of the water supply stations.

- OP/BP 4.01 Environmental Assessment.
- OP/BP4.12 Involuntary Resettlement
- OP/BP 4.11 Physical Cultural Resources
- BP 17.50 Disclosure of Operational Information.

4.3 WBG EHS: The Environmental, Health, and Safety (EHS) Guidelines

These are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). When one or more members of the WB Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards.

5. IMPACT ASSESSMENT AND MITIGATION MEASURES

5.1 Construction Phase

This section of the report describes the environmental and social impacts that are likely to result from the construction of the water stations, and the mitigation measures addressing them. The Environmental actions, procedures and responsibilities as required during the construction phase must comply with the available specifications, legislation, laws issued by the MOHE.

The construction contractor(s) will be responsible for compliance with the ESMP provisions during the construction phase of the subprojects. The contractor will be also in charge of undertaking construction works in a manner which complies with all relevant environmental and social procedures, adheres to all legislative requirements, and ensures that all environmental objectives associated with the contract are achieved. The overall assessment of the key environmental and social impacts is summarized below. According to the above environmental baseline and mitigation measures, it can be expected that the significant impact is low for most of the environmental receptors due to the minimum concentrations (as a background) for some parameters and medium impact for air quality, noise and child labor while health and safety has a high impact due to the fact this issue is related directly with the health and safety for the workers and staff as shown in the table below:

Table 3: Summary of Impact Assessment during Construction

	Environmental Receptor	Impact Significance
1	Air Quality	Medium
2	Noise	Medium
3	Water Resources	Low
4	Soil	Low
5	Solid and hazardous wastes	Low
6	Flora & Fauna	Not significant
7	Topography and landforms	Not significant
8	Impacts on local traffic	Not significant
9	Health and Safety	High
10	Socio-Economic impacts	Low
11	Child Labor	Medium

5.2 Operational Phase

During the operational period, the project is expected to result in positive socio-economic outcomes for the local communities. Health and safety impacts has significant impact during the operation phase related to workers. Socially harmful consequences of water supply station operation are not anticipated. However, the continued operation of a GRM for one year following opening of the water supply station for

use will ensure that local community members have an accessible, fair and transparent means of reporting any emerging adverse impacts, and a means of obtaining mitigation.

6. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

In this section, the identified mitigation measures will be summarized. The responsibility for implementation of the mitigation measures will be mostly upon the contractor. However, the supervision and assurance that the mitigation measures are implemented will be the responsibility of the Resident Engineer (RE) who represents the ministry as the Project Owner.

The Resident Engineer will be assisted by a team of environmental and social officers who will be responsible for supervising the daily activities of the contractor and will report non-compliances to the Resident Engineer in order to take necessary actions towards the contractor in addition to the OHS aspects. Regular supervision site visits will also be conducted by the PMO environmental/social officer in association with a qualified environmental and social consultant who will provide technical advice in case there is a need to modify or add new mitigation measures as work necessitates.

The costs of mitigation measures are estimated based on the average market rates for similar activities in Iraq and can be used as indicative costs. It is the sole responsibility of the contractor to estimate the costs associated with the recommended mitigation measures based on his work experience.

In terms of hazardous waste, the following mitigation should be followed:

- Provide adequate sanitation facilities serving all workers (mentioned in HSE).
- Paints with toxic ingredients or solvents or lead-based paints will not be used
- All waste should be deposed through licensed haulers/transporters to licensed and regulated landfill sites appropriate to the type of waste generated (e.g. solid, household, hazardous).

The following tables summarize the mitigation measures which are required to be undertaken to avoid any negative impacts on the environment. Responsibilities and estimated costs are also presented.

Table 4: Mitigation Measures during Construction Phase.

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
1	**Air quality**	• Unpaved roads, e.g. which may be utilized for construction vehicles movement or transportation of construction materials should be prepared in a way to avoid dust emissions. Watering to suppress dust should take place regularly. • Watering or increase of the moisture level of the open materials storage piles to reduce dust levels. • Enclosure or covering of inactive piles to reduce wind erosion. • Loads in all trucks transporting dust-generating materials have to be sprayed with water to suppress dust, as well as wheels of means moving inside and outside of the construction-site. • Limiting Speed for vehicles approaching the site to less than 40 km/hr. On site, speed limit should not exceed 20 km/hr.	Contractor	Resident engineer	1000
		• Engines of vehicles and other machinery are kept turned on only if necessary, avoiding any unnecessary emission. • Machines and equipment are periodically checked and maintained to ensure their good working condition. • All equipment and machines must be maintained and tested for compliance with standards and technical regulations for the protection of the environment and have appropriate certifications. • Activities are carried out using the minimum required number of means at the same time. • Electric small-scale mechanization and technical tools are used when available and feasible.	Contractor	Resident engineer	Included in contractor cost
2	**Noise**	Construction activities are to take place within reasonable hours during the day and early evening.	Contractor	Resident engineer	Included in contractor cost

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		• Equipment must be kept in good working order and where appropriate fitted with silencers which are kept in good working order. • Equipment to run only when necessary • Positioning of the noise sources in a concealed area with respect to acoustic receptors, consistent with the needs of the construction site.	Contractor	Resident engineer	Included in contractor cost
		Use of personal protection equipment for workers especially those who use jack hammers or near noisy engines or compressors.	Contractor	Resident engineer	500
3	**Water resources**	Wastewater from the worker rest areas or construction offices should be contained in sealed containers and should be removed regularly from site by means of authorized contractors.	Contractor	Resident engineer	1000
		• In case of the need to change engine oils or refuel some construction equipment, a proper maintenance workshop or shelter should be installed to ensure containment of any fuel or oil spills via provision of secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points • No solid wastes are to be thrown into the river. • Damaged parts of the intake structure that might occurred should be carefully removed.	Contractor	Resident engineer	500
		• In case of using septic tanks on site, the engineering drawings of these tanks should be presented to the Resident Engineer for approval. The wastewater in these tanks should be collected and then transported periodically to the nearest authorized wastewater treatment plant.	Contractor	Resident engineer	Included in contractor cost
4	**Soil**	• To prevent soil contamination by oil/grease spills, leakages or releases, all manipulations of oil derivatives in the process of construction and provision of the fuel to the machines should be performed with maximum care; leak proof containers should be used for storage and transportation of oil/grease and wash off from the oil/grease handling area shall be drained through drains and collected and disposed properly	Contractor	Resident engineer	Included in contractor cost

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		• Construction waste and debris shall be collected on a regular basis and disposed of at designated landfills; • Only authorized quarries shall be used for purchasing soil to be used for embankment, padding, bedding, backfilling during construction; and • It must be prohibited to operate equipment and vehicles outside the designated work areas and roads. • Reuse the excavated soil when it deemed technically appropriate.			
		• No hazardous waste storage to take place directly on soils. Appropriate and enclosed containers away from direct sunlight, wind and rain. • Provide adequate ventilation where volatile wastes are stored. • Limiting access to hazardous waste storage areas to employees who have received proper training	Contractor	Resident engineer	1000
5	**Solid and hazardous wastes**	• Minimizing hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste to be managed. • Provision of readily available information on chemical compatibility to employees, including labeling each container to identify its contents • Limiting access to hazardous waste storage areas to employees who have received proper training • Simple waste management plan for specific waste streams must be developed. • Non- hazardous or municipal waste must be collected and transported to local council approved disposal sites. • Food wastes must be collected, where practicable, considering health and hygiene issues, for disposal off-site through licensed contractors. • Waste containers must be located at each worksite. • Chemical wastes must be collected in 200 liter drums (or similar sealed container), appropriately labeled, for safe transport to an approved chemical waste depot or collection by a liquid waste treatment service. • Storage, transport and handling of all chemicals must be conducted in	Contractor	Resident engineer in coordination with the local authority and ministry of science and technology regarding hazardous wastes	1000

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		accordance with all legislative requirements, through licensed contractors and in coordination with the local authority. • All hazardous wastes must be appropriately stored in bounded areas and should be clearly identified as "hazardous". • Transportation and disposal of hazardous wastes should be done through licensed contractors and in close coordination with the relevant local authority and in compliance with the legal requirements and instructions of the ministry of science and technology previously. • Hazardous liquids, such as solvents, rust proofing agents and primer must be managed in accordance with the requirements of relevant legislation and industry standards. • Material Safety Data Sheets (MSDS) for hazardous materials must be available on-site during construction and made available and explained to workers. • Hydrocarbon wastes, including lube oils, must be collected for safe transport off-site for reuse, recycling, transport or disposal at approved locations.			
6	**Flora & Fauna**	• Limitation of disturbance to vegetation cover during construction works. • Design water intake structures to ensure intake pipe are fitted with screens to prevent fish impingement	Not Applicable	Not Applicable	Not Applicable
7	**Topography and landforms**	Not Applicable	Not Applicable	Not Applicable	Not Applicable
8	**Traffic**	• Where practicable, truck deliveries must be restricted to daytime working hours. • Clear traffic signs and signs signals must be installed on-site to provide for safe traffic.	Contractor in coordination with the Local Traffic Department	Resident Engineer	500
9	**Health and Safety**	• Limit speed of construction vehicles and provide road signage for drivers and local community.	Contractor	Local traffic department in coordination with the Resident	500

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
				engineer for some sections	
		• Having a clear set of OHS Plan and Procedures. • Having a detailed emergency plan including the nearest medical center and the location of the first aid kits. • Qualified personnel must be employed for the construction equipment, and personnel must be trained for health and safety issues. • Personal protection equipment such as eyeglasses, gloves, hard heads and safety belts must be supplied and continuously used by all workers, technicians, engineers and site visitors.	Contractor	Resident engineer	500
		• Testing structures for integrity prior to undertaking work; • Implementation of a fall protection program that includes training in climbing techniques and use of fall protection measures; • An approved tool bag should be used for raising or lowering tools or materials to workers on structures; • For working at height: Testing structures for integrity prior to undertaking work. • Implementation of a fall protection program that includes training in climbing techniques and use of fall protection measures • Grounding conducting objects (e.g. fences or other metallic structures) installed near power lines, to prevent shock. • Use of helmets and other protective devices will mitigate against scratches, bruises, punctures, lacerations and head injuries due to dropping objects. • Adherence to local and international guidance and codes of practice on EHS management during construction; • management, supervision, monitoring and record-keeping; • implementation of EHS procedures as a condition of contract with contractors and their sub-contractors; • clear definition of the EHS roles and responsibilities of the companies involved	Contractor	Resident engineer	Included in contractor cost

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		in construction and to individual staff (including the nomination of EHS supervisors during construction and an EHS coordinator during operation); • pre-construction assessment of the EHS risks and hazards associated with construction and operation, including consideration of local cultural attitudes, education level of workforce and local work practices; • provision of appropriate training on EHS issues for all construction and operation workers, including initial induction and regular refresher training, taking into account local cultural issues; • provision of health and safety information; • regular inspection, review and recording of EHS performance; • protective systems to be put in place to protect workers from cave-in in trenches.			
		• Any accidents to be reported and treated within site as a first aid procedure. • Safety training for the workers. • Fuel and oil changing shelters should be equipped with necessary firefighting and safety equipment • To ensure worker safety, health insurance must be provided to all type of workers • First aid boxes should be available all times onsite and trained staff on emergency aids should be identified.	Contractor	Resident engineer in coordination with health and safety officials.	500
		• Provide surveillance and active screening, and immunization • Provide treatment on-site or in community health care facilities • Eliminate unusable impounded water, and apply vector control programs • Erect suitable and adequate warning signage along culvert cleaning and excavation sites • Collaborate with local communities and responsible authorities to improve signage and visibility • Avoid uncovered piles of aggregates and other construction materials • Avoid burning waste in worksites	Contractor	Resident engineer in coordination with health and safety officials.	1000

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		• Avoid or minimize driving through community areas and dangerous routes during daytime • Alert drivers on local speed limits, and monitor implementation • Minimize traffic by purchasing from the local markets to the extent possible • Closing of trenches on the same day, • If a trench will be left open for the day after, barriers to prevent community members and unauthorized personnel will be put in place. • Assign local security personnel to prevent unauthorized entry to the site. • Signs and awareness should be installed close to the excavation area to protect road users and community. • Contractor prepares and implements Traffic Management Plan and Pedestrian Safety Plan			
10	**Handling Complaints**	• A complaints register will be kept on site and this will feed into the GRM. Details of complaints received will be incorporated into the audits as part of the monitoring process.	Resident Engineer	PMO	Included in contractor cost
11	**Cultural Heritage**	▪ In case of accidental discovery stop all works and contact the responsible authority within 24 hours; ▪ Provide training to the construction crew on the mode of conduct in case of accidental findings Chance find procedures will be used as follows: Stop the construction activities in the area of the chance find; • Delineate the discovered site or area; • Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Ministry of Culture take over; • Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry of Culture immediately (within 24 hours or less); • Responsible local authorities and the Ministry of Culture would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists from the Department of Antiquities and the Ministry	Contractor	Resident engineer in coordination with Heritage Authority.	Included in contractor cost

Receptor		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
		of Culture (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values; • Decisions on how to handle the finding shall be taken by the responsible authorities from DA and the Ministry of Culture. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage; • Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry of Culture; and • Construction work could resume only after permission is given from the responsible local authorities and the Ministry of Culture concerning safeguard of the heritage			
12	**Child labor and Gender Based Violence**	• Rigid obligations and penalties will be added to the contractor contracts in order to warrantee no child labor exist in the subproject • The PMO will oblige the contractor to keep a copy of IDs of laborers in order to monitor the hired staff (Chapter 11 of the 2015 Labor Law of Iraq sets the age for hazardous works 18 years old). • Labor influx should also be managed by contractor and ensure Code of Conduct is introduced and applied to avoid impact on local community and provide mitigation measure for GBV risks • The contractor also will be obliged to maintain daily attendance sheets in order to verify the attendance of workers in case of accidents and provide the injured persons with proper health insurance ▪ The code of conduct for workers/contractors should be introduced to prevent misconducts, including prevention of sexual harassment and gender based violence and also training and awareness rising for workers should be continued, through daily toolbox talks and other training opportunities.	Contractor	Resident engineer	Included in contractor cost
Total cost US$ (Construction phase)					**7,000**

Table 5: Mitigation Measures during Operation Phase.

Impact	Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$

Impact		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
1	• Air quality	• All equipment and machines must be maintained and tested for compliance with standards and technical regulations for the protection of the environment and have appropriate certifications. • Activities are carried out using the minimum required number of means at the same time. • Electric small-scale mechanization and technical tools are used when available and feasible.	Local authorities	Local authorities	No cost
2	• Noise	• Equipment must be kept in good working order and where appropriate fitted with silencers which are kept in good working order. • Use of personal protection equipment for workers especially those who use jack hammers or near noisy engines or compressors.	Local authorities	Local authorities	No cost
3	**Sanitary Waste**	• Wastewater from the worker rest areas or operation office should be contained in sealed containers and should be removed regularly from site by means of authorized contractors.	Local authorities	Local authorities	No cost
4	**Soil**	To prevent soil contamination by oil/grease spills, leakages or releases, and provision of the fuel to the machines should be performed with maximum care; leak proof containers should be used for storage and transportation of oil/grease and wash off from the oil/grease handling area shall be drained through drains and collected and disposed properly	Not applicable	Not applicable	Not applicable
5	**Solid and hazardous wastes**	• During the operational period, some littering and waste generation resulting from the repair activities will occur. Littering may occur due to wind action. • All waste should be deposed through licensed haulers/transporters to licensed and regulated landfill sites appropriate to the type of waste generated	Local Authority (Municipality)	Local Authority (Municipality)	Within municipal budget
6	**Flora & Fauna**	Not applicable	Not Applicable	Not Applicable	Not Applicable
7	**Topography and landforms**	Not Applicable	Not Applicable	Not Applicable	Not Applicable
8	**Handling Complains**	The continued operation of a GRM for one year following operating of the Road for use will ensure that local community members have an accessible, fair and transparent means of reporting any emerging adverse impacts, and a means of obtaining mitigation.	Local authorities	Local authorities	No cost

Impact		Mitigation Measures	Responsibility	Supervision	Total estimated Cost in US$
9	**Child labor and Gender Based Violence**	• The PMO will oblige the contractor to keep a copy of IDs of laborers in order to monitor the hired staff (Chapter 11 of the 2015 Labor Law of Iraq sets the age for hazardous works 18 years old). • Labor influx should also be managed by contractor and ensure Code of Conduct is introduced and applied to avoid impact on local community and provide mitigation measure for GBV risks • The Local authority also will be obliged to maintain daily attendance sheets in order to verify the attendance of workers in case of accidents and provide the injured persons with proper health insurance • The code of conduct for workers/contractors should be introduced to prevent misconducts, including prevention of sexual harassment and gender based violence and also training and awareness rising for workers should be continued, through daily toolbox talks and other training opportunities.	Local authorities	Local authorities	No cost
10	**Health and Safety**	• Provision signage to improve visibility and overall safety of roads, particularly along stretches located near Roads or other locations where children may be present. • Having a clear set of emergency Plan and Procedures. • provision of health and safety information; • regular inspection, review and recording of EHS performance; • Provide appropriate technical means • Install chlorine emission sensors alert • Provide workers with PPEs	Contractor	Resident engineer	Included in contractor cost
Total cost US$ (Operation phase)					**No Cost**

7. ENVIRONMENTAL AND SOCIAL MONITORING PLAN

7.1 Environmental and Social Monitoring

In order to ensure full compliance of the performed activities to the environmental and social requirements, regular monitoring should be performed. For this purpose, an environmental and social monitoring program has been established for the construction phase to ensure the proper implementation of the environmental and social mitigation measures.

7.2 ESMP Institutional Arrangements

In order to ensure full compliance with the environmental and social requirements which are described above, PMO nominated a qualified engineer to act as the focal point for environmental and social affairs at the central level. On the field level, PMO nominated two engineers in Al-Muthanna to act as environmental and social officers. Those engineers will be trained on monitoring and reporting of environmental and social impacts and how to fill the checklist to be used during field visits before implementation starts.

The Resident Engineer will be the officially responsible staff member for ensuring environmental and social compliance. S/He will be assisted by the designated environmental and social field officers.

In addition, a qualified consultant is recruited by the PMO to provide technical assistance and capacity building to the environmental and social team both at the central level and at the field level.

7.3 Reporting requirements

In order to ensure that the mitigation and monitoring measures are being carried out effectively with the required frequency, a clearly defined and regular reporting and response system must be established. The needed frequency of report generation for inspection is to be monthly, and for auditing twice a year, environmental monitoring is once per year.

The information will be made available to the relevant regulatory authorities as required. In addition to the monitoring and reporting requirements documented in the relevant sections of the ESMP, the following reporting regime will be implemented:

a) All incidents or accidents during the rehabilitation should be reported immediately to relevant authorities.
b) All corrective measures must be discussed to ensure compliance with laws and regulations.
c) Reports for personnel training on environmental issues or emergency practices must be produced.
d) Progress reports, environmental monitoring report and other inspections reports must be produced periodically.

The PMO environmental and social field officers will provide the Resident Engineer with a weekly report briefing their observations and recommendations for action. Whereas the Resident Engineer shall prepare an environmental and social management report on monthly basis to PMO in Baghdad and then to the WB safeguard team(s).

Table 6: Monitoring Activities during Construction Phase.

Receptor		Monitoring Activities	Monitoring Indicators	Frequency	Responsibility	Supervision	Total estimated Cost in US$
1	**Air quality**	• Investigate dust complaints from workers and residents • Visual inspection of vehicles and equipment operating or entering the site and Measurements of exhaust emissions (CO, SOx, NOx, PM10, PM2.5)	• Recorded and documented complaints • Record the status of equipment and vehicles on site (excessive black or white smoke)	• Daily visual inspection • Once every six month	Resident Engineer	PMO	1,000
2	**Noise**	Investigate noise complaints from workers and neighboring communities in the affected locations	• Recorded and documented complaints • Recorded tests results	• Weekly inspection of complaints • Only in case of complains	Resident Engineer	PMO	1,000
3	**Water resources**	• Investigate implementation of mitigation measures and observe any oil or fuel spills. • Investigate wastewater disposal measures	Site Investigation report	Daily Investigation	Resident Engineer	PMO	No cost
4	**Soil**	• Observe any soil contamination with oil or fuel • Observe any accumulation of wastes	Site Investigation report	Monthly	Resident Engineer	PMO	No cost
5	**Solid and hazardous wastes**	• Maintain records on waste types and quantities • Observe any waste accumulation in un approved locations	• Waste management contracts with authorized contractors • Waste delivery receipts from local authorities.	• Weekly • Weekly	Resident Engineer	PMO	No cost

Receptor		Monitoring Activities	Monitoring Indicators	Frequency	Responsibility	Supervision	Total estimated Cost in US$
6	**Health and safety**	• Ensure compliance of workers to Health and Safety requirements • Maintain log on incidents and accidents. • To ensure worker safety, health insurance must be provided to all type of workers	Observation report Accidents report	Weekly	Resident Engineer	PMO	No cost
7	**Flora & Fauna**	Record any observation about wild animals or plants on site or nearby and report to the Environmental Authority	Observation report	Upon occurrence	Resident Engineer	PMO	No cost
8	**Topography and landforms**	No monitoring required	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
9	**Traffic**	Ensure speed limits and warning signs are installed	Road signs are installed.	Monthly	Resident Engineer	PMO	No cost
10	**Handling Complaints**	Ensure that the GRM is effective and well communicated	Number of complaints received, analyzed and responded to.	Weekly	Resident Engineer	PMO	No cost
11	**Child labor and Gender Based Violence**	• Ensuring that children and minors are not employed directly or indirectly on the project. • Ensure to prevent misconducts, including prevention of sexual harassment and gender based violence.	• A copy of IDs of laborers and labor registry. • Percentage of workers that have attended the code of conduct training and number of GBV training delivered.	• Daily • Weekly	Resident Engineer	PMO	No cost
Total cost US$ (Operation/Maintenance phase)							**2,000**

Table 7: Monitoring Activities during Operation Phase.

Receptor		Monitoring Activities	Monitoring Indicators	Frequency	Responsibility	Supervision	Total estimated Cost in US$
1	**Air quality**	• Investigate dust complaints from workers and residents • Visual inspection of vehicles and equipment operating or entering the site and Measurements of exhaust emissions (CO, SOx, NOx, PM10, PM2.5)	• Recorded and documented complaints • Record the status of equipment and vehicles on site (excessive black or white smoke)	• Daily visual inspection • Once every six month	Operator	Water Directorate	1,000
2	**Noise**	Site inspection measuring the level of noise	Report on the level of noise	Weekly	Operator	Water Directorate	No additional cost
3	**Water resources**	• Investigate wastewater disposal measures	Site Investigation report	Weekly	Operator	Water Directorate	No cost
4	**Soil**	• Observe any soil contamination with oil or fuel • Observe any accumulation of wastes	Site Investigation report	Monthly	Operator	Water Directorate	No cost
5	**Solid and hazardous wastes**	• Maintain records on waste types and quantities • Observe any waste accumulation in un approved locations	• Waste management contracts with authorized contractors • Waste delivery receipts from local authorities.	• Weekly • Weekly	Operator	Water Directorate	No cost
6	**Health and safety**	• Ensure compliance of workers to Health and Safety requirements • Maintain log on incidents and accidents.	Observation report Accidents report	Weekly	Operator	Water Directorate	No cost

Receptor		Monitoring Activities	Monitoring Indicators	Frequency	Responsibility	Supervision	Total estimated Cost in US$
		• To ensure worker safety, health insurance must be provided to all type of workers					
7	**Flora & Fauna**	Record any observation about wild animals or plants on site or nearby and report to the Environmental Authority	Observation report	Upon occurrence	Operator	Water Directorate	No cost
8	**Topography and landforms**	No monitoring required	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
9	**Traffic**	Ensure speed limits and warning signs are installed	Road signs are installed.	Monthly	Operator	Water Directorate	No cost
10	**Drinking water quality**	Regular water quality testing	water quality testing for pH, Turbidity, (EC), Color, (TSS), (TDS),	Daily	Operator	Water Directorate	No additional cost
11	**Handling Complaints**	Ensure that the GRM is effective and well communicated	Number of complaints received, analyzed and responded to.	Weekly	Operator	Water Directorate	No additional cost
12	**Child labor and Gender Based Violence**	• Ensuring that children and minors are not employed directly or indirectly on the project. • Ensure to prevent misconducts, including prevention of sexual harassment and gender based violence.	• A copy of IDs of laborers and labor registry. • Percentage of workers that have attended the code of conduct training and number of GBV training delivered.	• Weekly	Operator	Water Directorate	No additional cost
Total cost US$ (Operation/Maintenance phase)							**2,000**

The environmental and social consultant will prepare a monthly environmental and social supervision report after conducting site supervision visits.

On quarterly basis, PMO shall prepare an environmental and social progress report which will be submitted to the international financial institution (WB) for review and disclosure.

7.4 Capacity Development and Resources Requirements

PMO dedicated sufficient human resources to undertake the environmental and social management requirements as explained above. The assigned staff at the central and field levels are competent in the field of engineering and have variable practical experience. For the staff who will be responsible for undertaking the environmental and social tasks, they will require some capacity development.

All construction personnel and contractors are required to undertake appropriate environmental training and induction programs including, importantly, on GRM procedures.

All managers and supervisors will be responsible for ensuring that personnel under their control have the requisite competencies, skill and training to carry out their assigned tasks in accordance with the requirements of the ESMP. They will also be responsible for identifying additional training and competency requirements.

All project supervisors and managers will receive additional detailed training on the use and implementation of the ESMP. The following Table presents the proposed institutional strengthening program and capacity development requirements.

Table 8: Capacity Development Requirements

	Capacity development topic	Provider(s)	Duration	Estimated Cost (US$)
1	Environmental Impact Assessment Environmental and social Management in Construction Sites	Consultant	3 Days	1,500
2	Iraqi Environmental Legal Requirements	Ministry of Environment	1 Day	500
3	World Bank Environmental and Social Safeguards	Consultant	2 Days	1,000
Total Estimated Cost				**$3,000**

In order to ensure full compliance of the environmental and social requirements, regular site visits should be conducted. Dedicated office spaces, office equipment and supplies in addition to adequate means of transportation should be made available for the environmental and social management team at the central level and most importantly on the field level. MOP PMO should ensure the allocation of sufficient budget resources to ensure availing the required resources to achieve the required tasks.

8. PUBLIC CONSULTATION

8.1 Consultation Process:

The public consultations were carried out in these two villages for upgrading and construction of water supply station on 12 and 13 of October, 2019. The public consultations included only men and number of participants was 24 in these villages. Accordingly, a questionnaire was formatted to cover the key environmental and social aspects related to the subproject. The consultation started by providing briefs about the subproject activities, potential impacts and future benefits.

In addition to public consultation, one on one interviews were conducted on 12 and 13 of October, 2019. The formatted questionnaire was then addressed to 9 women and 10 men in the surrounding community randomly to have their opinions and thoughts regarding the construction activities.

8.2 Consultation Results:

All participants in these villages expressed that; the upgrade of these water supply stations will have a positive impact on their social daily life. Please refer to Annex 2 and Annex 3 for the public consultations in Al Aksheh and Al Tawawreh villages and also sample of individual interviews for both men and women. The full list of participants for public consultations and individual interviews are attached in standalone document to reduce the size of the instrument. As per the questionnaire prepared for individual interview, the below are the main findings:

1) All interviewed locals agreed that the construction activities of water supply station will serve all the people in the village and have a strong positive impact from the social perspectives on the locals.
2) No claims from any locals were recorded or alleged regarding the ownership of the land were the water supply stations are constructed; all agreed that is governmental land property.
3) The project will contribute to strength the health awareness by avoiding the purchase of potable water which might be not sterilized properly specially in the summer.
4) The rehabilitation of the project will enhance the economic situation of the people via avoiding the purchase of extra water from the water tankers to cover their daily requirements.
5) They welcomed that there will be a hot line to express their suggestion or concern that might happen during the rehabilitation phase.
6) No vegetation covers, crops, plants, trees…etc. will be removed in order to execute the rehabilitation activities of the water supply station.
7) The interests of the locals will not be affected in any way by the construction activities.
8) No infrastructure within the water supply station area will be affected negatively due the construction activities and there is no need for alternative roads.
9) No deportation, dislocation of any of the local community will be needed due to these activities.
10) The locals asked to take the proper precaution mitigations to avoid any accident that might happen. In addition, the locals asked to install an electrical transformer

specifically for the water supply station which is different than those for the people and was achieved via including a transformer to Bill of Quantities.

11) The rehabilitation of the project will enhance the social relationship among the locals; improve their achievements and performance via the availability of Water.

9. GRIEVANCE REDRESS MECHANISM

The SFD is in the process of establishing a free hotline and is expected to be functioning within the next few months. SFD is planning to set up a digital system with multi-channels for receiving complaints, inquiries, feedbacks or comments like WhatsApp, Facebook, email and complain boxes for each subproject. Additionally, focal points will be assigned at local level and central level to be in charge of handling complaints.

Meanwhile, in order to comply with the WB requirements, SFD has temporary assigned three staffs as focal points with their cell phone numbers to be disseminated at each subproject level for receiving calls and handling complaints. It is important to mention that the complaints can be raised and addressed even from anonymous person(s). The contact details will be posted at subproject signboard and the complaint boxes will be installed in each location as shown in the below table.

Table 9: Contact Information for GRM

#	Name	Job Title	Phone Number	E-mail
1	Kabil Hmood Abas	SFD Team leader	07812542417	Muth_planning@yahoo.com
2	Mohammed Thamer Fitan	GRM officer	07803008372	Muth_planning@yahoo.com
3	Yaser Mohammed Sehood	M&E officer	07812542417	Muth_planning@yahoo.com

The process of managing complaints will be as follows:

1- Complaints should be sorted out according to complexity;
2- Simple inquiries should be resolved on the spot by concerned staff members in 3-6 working days as a maximum and should be documented and archived as per the relevant procedure;
3- Complex issues should be investigated and communicated with higher management for final decisions within a timeframe of 20 working days as a maximum;
4- After the completion of the proceedings, the complaint is closed, and information is included in the system, including the action(s) taken and the result(s) required; and
5- The complainant shall be notified of the result and the action immediately and informed of the possibility of objecting to the procedure.
6- Individuals who submit their comments or grievances have the right to request that their name be kept confidential. An anonymous complaint can receive a code and should be investigated appropriately and treated courteously.

In addition to PMO, the MOP, project offices in governorates, and Community Development Groups (CDGs), the World Bank's Grievance Redress System (GRS) can also be approached for reporting and resolving issues.

ANNEXES

Annex 1: Public Consultations Photos

Public Consultations at **Al Aksheh** Village

Public Consultations at Al Tawawreh Village

Annex (2): sample of public consultation at these two villages

تقرير فريق الاجراءات البيئية والاجتماعية

محافظة المثنى / قرية العكشة

مشروع (تاهيل وتطوير وتوسعة مجمع ماء العكشة من 14م^3/ساعة الى 50م^3/ساعة في النجمي)

وصف المشروع : تجهيز ونصب وتشغيل وحدة ماء مجمعة سعة 50م^3/ساعة كاملة منشا اوروبي مع كافة الانابيب الرابطة بين اجزاء الوحدة وجميع الملحقات من عكوس وتقاسيم واقفال كهربائية والقابلوات ورمل المرشحات ومد خط ناقل بطول 2 كم وشبكة داخل القرية بطول 8 كم وكل مايتطلبه العمل .

محضر إجتماع المشروع

1. إن المشروع سيساهم في تحسين الواقع الاجتماعي والاقتصادي للقرية من خلال توفير المياه الصالحة للشرب والاستخدام اليومي وتقليل الاخطار الناجمة عن عدم معالجة المياه بصورة كاملة
2. بين الشيخ (سلام عبد الزهرة) رئيس اللجنة المجتمعية حضوراللجنة اثناء عملية الكشف الموقعي وان المشروع هو اولوية ثانية بالنسبة للقرية واكدت اللجنة عدم وجود اي تعارضات للمشروع المذكور انفا كونه سينفذ على اراضي خضعت للنفع العام و اقيم عليها المشروع الحالي و فيها مخططات متكاملة لمنع الاضرار باي بنى تحتية خاصة بالمحطة الحالية اثناء تنفيذ مشروع التوسعة .
3. لا يوجد تعارضات أو تجاوزات على أرض المشروع وكذلك إن المشروع لا يحتاج الى استملاكات أو تعويضات .
4. إن المشروع يخدم جميع سكان القرية دون استثناء .
5. المشروع لا يحتاج الى انشاء طرق بديلة حيث إنه لا يؤدي الى غلق أي طرق داخل القرية .
6. لا يؤثر المشروع على البيئة الحيوية المحيطة به و كذلك الحياه البرية وكذلك لا يؤدي الى قطع الاشجار او رفع للمغروسات او تغيير ديموغرافية المنطقة، و لكن رغم ذلك نؤكد على ضرورة الالتزام بجميع الاجراءات الوقائية البيئية اثناء تنفيذ المشروع .
7. ان المشروع مهم من الناحية البيئية وذلك لان المياه المستخدمة حالياً غير معالجة بشكل كامل حيث تتضمن المعالجة ترسيب المياه فقط و للا تتضمن مراحل المعالجة الاخرى .
8. رحبت اللجنة المجتمعية للقرية بوجود خط ساخن للمشروع مع الادارة التنفيذية للصندوق في حال حصول اي عارض.
9. من خلال اطلاع اللجنة المجتمعية على وصف المشروع طلبت اللجنة المجتمعية اضافة محولة كهرباء خاصة لمشروع الماء لتشغيله حيث لم يتضمن الوصف هذه الفقرة رغم اهمية الامر بالنسبة للقرية .
10. المشروع لايؤثر على الحياة الاقتصادية للمنطقة حيث لا توجد بالقرب من المشروع اي اعمال تجارية قد تتاثر باعمال المشروع
11. إن المشروع سيساهم في تحسين الواقع الاقتصادي للقرية من خلال توفير المياه الصالحة للشرب وتقليل الاعباء المالية الناجمة عن شراء الماء باسعار عالية مقارنة مع دخل الفرد هناك .
12. ليس للمشروع اي اثار اجتماعية سلبية بل العكس فان المشروع سيودي الى تقليل المشاكل الاجتماعية الناتجة عن انقطاع الماء و قلة التجهيز و ان المشروع سيؤدي الى زيادة التماسك و الترابط الاجتماعي .
13. اكدت اللجنة المجتمعية على دعمها الكامل للمشروع و تقديم اي مساعدة ممكنة للقائمين على المشروع اثناء تنفيذه .
14. اكدت اللجنة المجتمعية ان المشروع لا يودي الى اعادة توطين اشخاص اوالاضرار باي مواطن بل العكس .
15. المشروع سيساهم في تعزيز لجانب الصحي ايضا و ذلك من خلال تحسين الماء المجهز للقرية و تجنب انتشار الامراض المنقولة بواسطة مياه الشرب و غيرها من مردودات صحية
16. نؤكد على ضرورة الزام المتعهد بالتنفيذ باتخاذ جميع التدابير الوقائية للمشروع و الخاصة الجانب البيني لكون المشروع يقع بالقرب من النهر (المصدر الرئيسي لمياه الشرب للقرية و القرى المجاورة).
17. تم مناقشة اهالي القرية بجميع تفاصيل العمل بالمشروع و الاجابة عن كافة اسالتهم و استفساراتهم اضافة الى الاستعلام منهم عن المشاكل التي تعاني منها القرية و بين الاهالي ان المشروع سيساعد على ايجاد الحل الناجع لاحدى اهم مشاكل القرية
18. نرفق طياً صور لمنطقة المشروع واللجنة المجتمعية مطبوعة على (CD).
19. نرفق طيا استمارات الاستبيان للمشروع عدد (10) .

خط الطول	خط العرض
E 45° 1´ 12.98´´	N 31° 40´ 0.93´´

تقرير فريق الاجراءات البيئية والاجتماعية

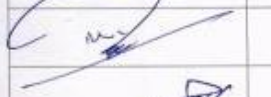
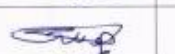
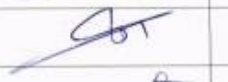
محافظة المثنى / قرية الطواورة

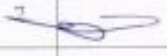
مشروع (تنصيب محطة تحلية مياه 100 مكعب مع شبكة رئيسية فى قرية الطواورة ومد انبوب ناقل الى قرية الخضرة مسافة 3500 متر)

وصف المشروع : تجهيز مواد واجور عمل تجهيز ونصب وتشغيل وحدة ماء مجمعة سعة 100 م3/ساعة كاملة مع بناية ادارة المحطة وخط ناقل من انابيب بلاستك قطر 160 ملم بطول 5 كم وشبكة 2 كم وخط ناقل الى قرية الخضرة بطول 3.5 كم بقطر 225 ملم وكل ما يتطلبه العمل من اجور ومواد

محضر إجتماع المشروع

1- تم اعداد الكشوفات الخاصة بمحطة التحلية وبناية الادارة والخطوط الناقلة من قبل اللجان المختصة المشكلة في صندوق الاجتماعي للتنمية بإسناد مديرية ماء المثنى حيث بين رئيس اللجنة المجتمعية حضوراللجنة اثناء عملية الكشف الموقعي وان المشروع هو اولوية ثانية بالنسبة للقرية .
2- ان ارض المشروع هي املاك عامة تابعة للدولة مخصصة للنفع العام خالية من المتجاوزين و لا يوجد فيها اي مستفيدين و جاهزة لتنفيذ المشروع .
3- إن المشروع سيساهم في تحسين الواقع الاجتماعي والاقتصادي للقرية من خلال توفير المياه الصالحة للشرب والاستخدام البشري وتقليل الاخطار الناجمة عن عدم شراء الماء من السيارات الحوضية.
4- إن المشروع يخدم جميع سكان القرية دون استثناء اضافة الى سكان قرية الخضرة المجاورة .
5- اكدت اللجنة المجتمعية عدم حاجة المشروع الى انشاء طرق بديلة كون المحطة ستنشأ في منطقة بعيدة عن سكن اهالي القرية .
6- المشروع لا يؤثر على البيئة الحيوية المحيطة به ولا يؤدي الى قطع الاشجار او تغيير ديموغرافية المنطقة و لكن بالرغم من ذلك اكدت اللجنة المجتمعية على ضرورة الالتزام بجميع الاجراءات الوقائية البيئية اثناء تنفيذ المشروع .
7- ان المشروع مهم من الناحية الصحية وذلك لان المياه المستخدمة حالياً يتم التزود بها من النهر مباشرة وهي غير معالجة بأي طريقة من الطرق المختلفة (بالكلور أو الشب أو ترسيب العوالق) اضافة الى تجنب انتشار الامراض المنقولة بواسطة مياه الشرب و غيرها من مردودات صحية
8- رحبت اللجنة المجتمعية للقرية بوجود خط ساخن للمشروع مع الادارة التنفيذية للصندوق في حال حصول اي عارض.
9- المشروع لايؤثر على الحياة الاقتصادية للمنطقة حيث لا توجد بالقرب من موقع المشروع اي اعمال تجارية ستتوقف بل العكس تماما حيث ان توفير المياه الصالحة للشرب والاستخدام المنزلي سيؤدي الى انعاش اقتصاد المنطقة حيث سيوفر لسكان القرية مبالغ ليست بالقليلة تصرف للحصول على الماء الصالح للشرب .
10- إن المشروع سيساهم في تحسين الواقع الاقتصادي للقرية من خلال توفير المياه الصالحة للشرب وتقليل الاعباء المالية الناجمة عن شراء الماء باسعار عالية مقارنة مع دخل الفرد هناك .
11- ليس للمشروع اي اثار اجتماعية سلبية و هو مرضي لجميع المستفيدين بل العكس فان المشروع سيودي الى تقليل المشاكل الاجتماعية الناتجة عن انقطاع الماء و قلة التجهيز و ان المشروع سيؤدي الى زيادة التماسك و الترابط الاجتماعي بين قريتي الخضرة و الطواورة.
12- اكدت اللجنة المجتمعية على دعمها الكامل للمشروع و تقديم اي مساعدة ممكنة للقائمين على المشروع اثناء تنفيذه .
13- اكدت اللجنة المجتمعية ان المشروع لا يودي الى اعادة توطين اشخاص اوالاضرار باي مواطن بل العكس حيث سيساعد على توطين سكان القرية في مناطقهم من خلال توفير اهم المقومات الاساسية للحياة الا وهي الماء .
14- نؤكد على ضرورة الزام المتعهد بالتنفيذ باتخاذ جميع التدابير الوقائية للمشروع و الخاصة بالجانب البيئي لكون المشروع يقع بالقرب من النهر (المصدر الرئيسي لمياه الشرب للقرية و القرى المجاورة).
15- تم مناقشة اهالي القرية بجميع تفاصيل العمل بالمشروع و الاجابة عن كافة اسالتهم و استفساراتهم اضافة الى الاستعلام منهم عن المشاكل التي تعاني منها القرية و بين الاهالي ان المشروع سيساعد على ايجاد الحل الناجع لاحدى اهم مشاكل القرية
16- ابدت الجهات المختصة في محافظة المثنى استعدادها في توفير اي مساعدة مطلوبة لتنفيذ المشروع لأهمية المشروع بالنسبة لسكان القرية و كانت المساعدة جلية في الخطوات الاولى للمشروع
17- نرفق طياً صور لاللجنة المجتمعية مطبوعة على (CD).
18- نرفق طيا استمارات الاستبيان للمشروع عدد (9) .

التسلسل	الاسم	التوقيع
١-	سلام عبد الزهره / رئيس اللجنه	
٢-	عقيل حسن / عضو اللجنه	
٣-	رياض حمزه / عضو اللجنه	
٤-	صادق عبد حمزه	
٥-	حيدر نايف	
٦-	راضي عصيه	
٧-	هادي داخل / عضو اللجنه	
٨-	جليل عبد الامير / عضو اللجنه	
٩-	ناصر حسين / عضو اللجنه	
١٠-	خضر عبد الحسن / عضو اللجنه	
١١-	قائد كطيف	
١٢-	احمد حسن حسين / عضو اللجنه	
١٣-	جبر عطيه خضير	

التسلسل	الاسم	التوقيع
١-	رحيم خضير سفير	
٢-	حيدر كاظم عبيد	
٣-	كاظم عبيد عياض	
٤-	حسين عبد الحسين مطر	
٥-	عبطلي عبد الخر عبد الحسين	
٦-	هادي خضير عيدان	
٧-	كريم نوماس كواد	
٨-	مالك فهد عباده	
٩-	سلمان عبد الحسين سفير	
١٠-	نجم خضير سفير	
	محمد رحيم خضير	

Annex (3): Sample individual interviews for both men and women

(استبيان)

اسم المشروع : تأهيل وتطوير وتوسعة شبكة مياه العاشر

الاسم: فاطمة مصطفى سليمان

الجنس: ذكر ☐ أنثى ☑

المهنة : ربة بيت

ت	السؤال	نعم	كلا	الملاحظات
١	هل تعتقد ان عملية أعمار المشروع لها اثار ايجابية من الناحية الاجتماعية بالنسبة للسكان القاطنين في المناطق القريبة من المشروع.	✓		
٢	هل هنالك ادعاءات او مطالبات من قبل السكان المحليين بعاندية الارض المقام عليها المشروع؟		✓	
٣	بسبب اعمال الاعمار ، هل هنالك عمليات رفع لمحاصيل زراعية او اشجار او اي غطاء نباتي تعود عاندية لمواطنين او السكان المحليين؟		✓	
٤	هل تضررت مصالح المواطنين القاطنين بالقرب من المشروع بسبب اعمال الاعمار؟		✓	
٥	هل هنالك اي بنى تحتية دائمية او مؤقتة تلعب دورا اساسيا في النشاطات الحيوية اليومية للسكان ستتاثر بعملية اعمار المشروع؟		✓	
٦	هل ان اعمال اعمار المشروع ستتسبب باجراءات اعادة توطين لشخص او لاشخاص الى مناطق جديدة؟		✓	
٧	هل تمت عملية استخدام ارض المشروع من قبل السكان المحليين، علما ان الارض تابعة للدولة؟		✓	
٨	هل نتوقع وجود تاثيرات اجتماعية سلبية بالمنطقة نتيجة اعمال المشروع؟		✓	
٩	هل هناك تغيير ديموغرافي او ضرر في النسيج الاجتماعي نتيجة عمليات الاعمار؟		✓	
١٠	هل يحتاج المواطنون القريبون من المشروع لوضع علامات تحذيرية او استدلالات لزيادة معدلات الامان؟	✓		

التوقيع:

الاسم : فاطمة مصطفى سليمان

التاريخ: / / 2019

(استبيان)

اسم المشروع : تنفيذ محطة تحلية مياه ١٠٠٠م٣ يوم من انبوب الى مدينة الطارمة

الاسم: كريم نوفان مواد

الجنس: ذكر ☑ أنثى ☐

المهنة : طالب

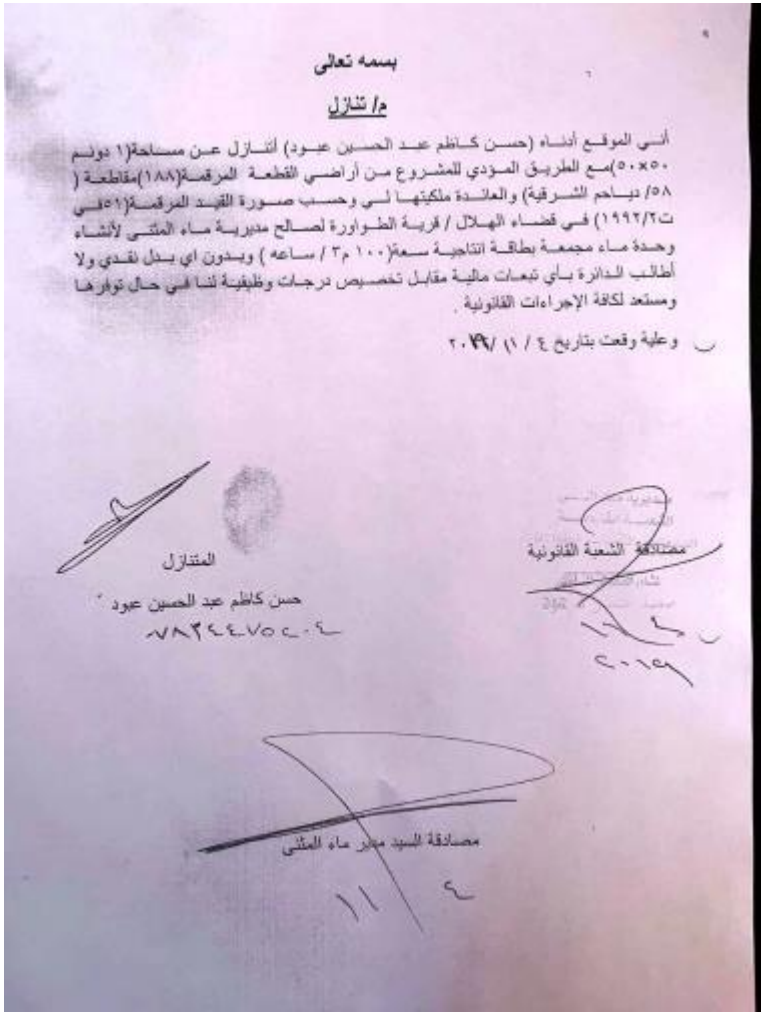
ت	السؤال	نعم	كلا	الملاحظات
١	هل تعتقد ان عملية أعمار المشروع لها اثار ايجابية من الناحية الاجتماعية بالنسبة للسكان القاطنين في المناطق القريبة من المشروع.	✓		
٢	هل هنالك ادعاءات او مطالبات من قبل السكان المحليين بعاندية الارض المقام عليها المشروع؟		✓	
٣	بسبب اعمال الاعمار ، هل هنالك عمليات رفع لمحاصيل زراعية او اشجار او اي غطاء نباتي تعود عاندية لمواطنين او السكان المحليين؟		✓	
٤	هل تضررت مصالح المواطنين القاطنين بالقرب من المشروع بسبب اعمال الاعمار؟		✓	
٥	هل هنالك اي بنى تحتية دائمية او مؤقتة تلعب دورا اساسيا في النشاطات الحيوية اليومية للسكان ستتاثر بعملية اعمار المشروع؟		✓	
٦	هل ان اعمال اعمار المشروع ستتسبب باجراءات اعادة توطين لشخص او لاشخاص الى مناطق جديدة؟		✓	
٧	هل تمت عملية استخدام ارض المشروع من قبل السكان المحليين، علما ان الارض تابعة للدولة؟		✓	
٨	هل نتوقع وجود تاثيرات اجتماعية سلبية بالمنطقة نتيجة اعمال المشروع؟		✓	
٩	هل هناك تغيير ديموغرافي او ضرر في النسيج الاجتماعي نتيجة عمليات الاعمار؟		✓	
١٠	هل يحتاج المواطنون القريبون من المشروع لوضع علامات تحذيرية او استدلالات لزيادة معدلات الامان؟	✓		

التوقيع:

الاسم : كريم نوفان مواد

التاريخ: / / 2019

Annex (4): Donation of the land to the Government to construct the water supply station.



بسمه تعالى

م/ تنازل

انـي الموقـع أدنـاه (حسـن كـاظم عبـد الحسـين عبـود) أتنـازل عـن مسـاحة(١ دونـم ٥٠x٥٠)مـع الطريـق المـؤدي للمشـروع مـن أراضـي القطعـة المرقمـة(١٨٨)مقاطعـة (٥٨/ ديـاحم الشـرقية) والعائـدة ملكيتهـا لـي وحسـب صـورة القيـد المرقمـة(٥٢١فـي ت١٩٩٢/٢) فـي قضـاء الهـلال / قريـة الطـوارة لصـالح مديريـة مـاء المثنـى لأنشـاء وحـدة مـاء مجمعـة بطاقـة انتاجيـة سـعة(١٠٠ م٣ / سـاعه) وبـدون اي بـدل نقـدي ولا أطالـب الـدائرة بـأي تبعـات ماليـة مقابـل تخصـيص درجـات وظيفيـة لنـا فـي حـال توفرهـا ومستعد لكافة الإجراءات القانونية .

وعليه وقعت بتاريخ ٤ / ١١ /٢٠٢٩

المتنازل

حسن كاظم عبد الحسين عبود

مصادقة الشعبة القانونية

مصادقة السيد مدير ماء المثنى