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USAID JORDAN WATER INFRASTRUCTURE
Quarterly Progress Report
Period 11th – January 1, to March 31, 2021

Submission Date: Draft April 2021, Final May 7, 2021

USAID Contract Number: AID-OAA-I-15-00047, Order: 72027818F00002
Contract/Agreement Period: July 16, 2018 to September 30, 2022
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This document was produced for review and approval by the United States Agency for International Development / Jordan (USAID/Jordan).

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ACRONYMS AND ABBREVIATIONS

AAWDCP	Aqaba-Amman Water Desalination and Conveyance Project
A&E	Architect and Engineer
ADC	Aqaba Development Corporation
ADS	Automated Directives System
AFD	Agence Française de Développement (French Development Agency)
AMELP	Activity Monitoring, Evaluation, and Learning Plan
AW	Aqaba Water Company
ASEZA	Aqaba Special Economic Zone Authority
BEO	Bureau Environmental Officer
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe
BoDR	Basis of Design Report
BOT	Build-Operate-Transfer
CAD	Computer-Aided Design
CAPEX	Capital Expenditure
CDCS	Country Development Cooperation Strategy
CDM Smith	CDM International Inc.
CEGCO	Central Electricity Generating Company
CHP	Combined Heat and Power
CLA	Collaborating, Learning and Adapting
CRM	Climate Risk Management
CLIN	Contract Line Item Number
CMC	Construction Management Contract
CMS	Construction Management Services
COP	Chief of Party
COR	Contracting Officer Representative
CSF	Critical Success Factors
DAR	Dar Al Handasah Consultants
DBO	Design-Build-Operate
DCOP	Deputy Chief of Party
DDL	Development Data Library
DEC	Development Experience Clearinghouse
Desal	Desalination
DLS	Department of Land and Survey
DO	Development Objective
DOS	Department of Statistics
DQA	Data Quality Assessment
EA	Environmental Assessment
EBRD	European Bank for Reconstruction and Development
ECWQ	Existing Conditions and Water Quantity Assessment
EDCO	Electricity Distribution Company
EIB	European Investment Bank
EMMP	Environmental Mitigation and Monitoring Plan
EMRC	Energy and Mineral Regulatory Commission
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESR	Environmental Status Report

FARA	Fixed Amount Reimbursement Agreement
FIDIC	International Federation of Consulting Engineers
GAM	Greater Amman Municipality
GESI	Gender Equality and Social Inclusion
GIS	Geographic Information System
GIZ	Gesellschaft für Internationale Zusammenarbeit
GOJ	Government of Jordan
HO	Home Office
IDIQ	Indefinite Delivery/Indefinite Quantity
IEE	Initial Environmental Examination
IP	Implementing Partner
IPC	Interim Payment Certificate
IPS	Intake Pump Station
IPTT	Indicator Performance Tracking Table
IR	Intermediate Result
JICA	Japan International Cooperation Agency
JVA	Jordan Valley Authority
KAC	King Abdullah Canal
KaMP	Knowledge Management Portal
KfW	Kreditanstalt für Wiederaufbau (German Funding Bank)
KOTRA	Korea Trade-Investment Promotion Agency
LOE	Level of Effort
m ³ /day	Cubic Meters per Day
MCM/yr	Million Cubic Meter per Year
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MEO	Mission Environmental Officer
MESP	Monitoring and Evaluation Support Project
MEMR	Ministry of Energy and Mineral Resources
MIS	Management Information System
MODEE	Ministry of Digital Economy and Entrepreneurship
MoE	Ministry of Environment
MoH	Ministry of Health
MoPIC	Ministry of Planning and International Cooperation
MoPWH	Ministry of Public Works and Housing
MSS	Marine Science Station in Aqaba of Jordan University
MWI	Ministry of Water and Irrigation
NDA	Non-Disclosure Agreement
NEPCO	National Electricity Power Company
NICRA	Negotiated Indirect Cost Rate Agreement
NRW	Non-Revenue Water
NTP	Notice to Proceed
O&M	Operation and Maintenance
OPEX	Operational Expenditure
PAT	Processes, Activities, and Tasks
PESIA	Preliminary Environmental and Social Impact Assessment
PIRS	Performance Indicator Reference Sheet
PMP	Performance Management Plan
PMU	Programme Management Unit
PPP	Public Private Partnership
PPR	Performance Plan and Report

PQM	Project Quality Management
PS	Pump Station
RF	Results Framework
RFP	Request for Proposal
RFTOP	Request for Task Order Proposal
RO	Reverse Osmosis
ROW	Right-of-Way
RSDS	Red Sea Dead Sea Conveyance Project (also known as Jordan Red Sea Project)
RSS	Royal Scientific Society
SCADA	Supervisory Control and Data Acquisition
SOW	Statement of Work
SPC	Special Purpose Company, Samra Wastewater Treatment Plant Company Limited
STC	Special Tendering Committee
SWRO	Seawater Reverse Osmosis
TDY	Temporary Duty
TM	Technical Memorandum
TOR	Terms of Reference
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WAJ	Water Authority of Jordan
WIT	Water Innovation Technologies
WIPII	Water Infrastructure Project Phase II
WSIP	Water Sector Infrastructure Project
WMI	Water Management Initiative
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
WYG	WYG Group Limited, a Tetra Tech Company
YWC	Yarmouk Water Company

1. BACKGROUND

a. Introduction

United States Agency for International Development (USAID) Jordan Water Infrastructure (Project) is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract awarded to CDM International Inc. (CDM Smith) by USAID to cover all Architect and Engineer (A&E) infrastructure development tasks that USAID, in cooperation with the Ministry of Water and Irrigation and Water Authority of Jordan (MWI/WAJ), water companies, municipalities, and Ministry of Environment (MoE), plans to carry out during the project life-span within selected areas of Jordan. The goal is to achieve USAID and the Government of Jordan (GOJ) strategic goals. USAID supports the water sector activities through improved infrastructure and management. The objective is to help USAID partners better plan their resources for best utilization of limited water resources, develop strategic planning, build capacity among their staff, and improve environmental protection through improvements to the water and wastewater infrastructure based on the most feasible options to satisfy future growth. The scope of work to achieve the goals and objectives includes engineering assessments; studies; site investigations; network modeling; Geographic Information System (GIS) development; energy studies; designs; capacity building; and construction management in the water, wastewater and environment sectors.

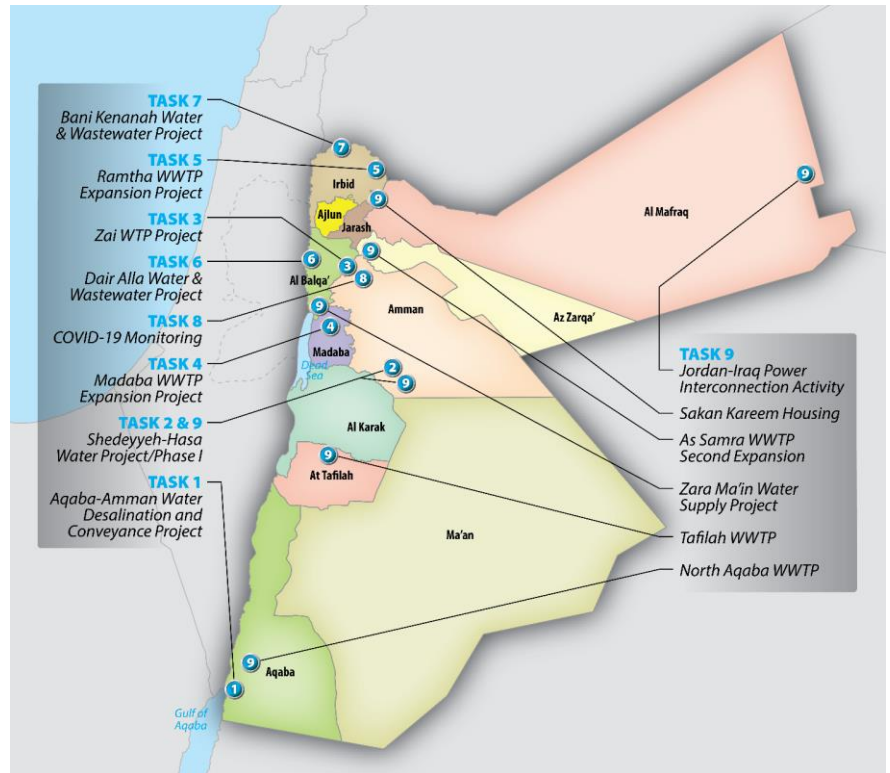


FIGURE 1-1 PROJECT LOCATIONS

b. Report Period

This quarterly progress report covers the USAID Jordan Water Infrastructure activities from January 1 to March 31, 2021, and reports on activities accomplished during the period and activities anticipated to be accomplished during the next quarter April to June 2021.

2. ACTIVITY OVERVIEW

a. Activity Details

USAID JORDAN WATER INFRASTRUCTURE

The Project commenced on July 16, 2018 and has an end date of September 30, 2022. The Project consists of a 4-year, 2-month, multiple-site, multiple-project infrastructure investment program to deliver specific improvements throughout Jordan. The task's locations are shown in **Figure 1-1**. The Project is divided into the following nine tasks:

- **Task 1-** Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP).
 - Providing services and support for AAWDCP will consist of developing a build-operate-transfer (BOT) contract and designs for treating seawater and a conveyance system from Aqaba to Amman. The final scope of work was accepted by MWI/WAJ and USAID in July 2019 and the work commenced. The scope of work revision provided by MWI/WAJ during June 2020 to address groundwater quality issues was revised in August 2020 to delete the groundwater from AAWDCP consideration.
- **Task 2**–Construction Supervision–Shedeyyeh–Hasa Water Project Phase I
 - This phase is located in central Jordan, and the task will consist of construction management services (CMS) for the well drilling contract Phase IA. Phase IB will include pre-contract and CMS services for the Design-Build-Operate (DBO) contract (water treatment plant [WTP], wellhead completion and pumps, and wellfield pipelines). Phase IA under Task 2 commenced in January 2019 with the signing of the well drilling contract.
- **Task 3**–Expansion of Zai Water Treatment Plant Project
 - Task 3 was to have consisted of detailed engineering design and tender documents for expansion of Zai WTP Project located at Dair Alla in the Jordan Valley and continues through Balqa Governorate to Amman. However, the King Abdullah Canal (KAC) currently does not have any additional water for the system expansion. Therefore, the task consists of existing conditions assessments and an options report for improvements of the Zai system facilities. Design and tender documents for the selected water supply system improvements will be developed pending coordination with the ongoing JICA and KfW energy efficiency programs. The Task 3 start date was August 2018.
- **Task 4**–Expansion of Madaba Wastewater Treatment Plant
 - Feasibility study, design, and tender documents for expansion of Madaba Wastewater Treatment Plant (WWTP) will consist of a feasibility report for the expansion of the WWTP, a reuse plan, existing conditions assessments, and design and tender documents for the WWTP expansion. The Task 4 start date was August 2018.
- **Task 5**-Expansion of Ramtha Wastewater Treatment Plant
 - Feasibility study, design, and tender documents for expansion of the Ramtha WWTP will consist of a feasibility report for the expansion of the WWTP, a reuse plan, existing conditions assessments, and design and tender documents for the WWTP expansion. The Task 5 start date was August 2018.
- **Task 6**–Water and Wastewater Project for Dair Alla and Al Karamah in Balqa Governorate
 - Project is in the Jordan Valley, and the task will consist of preparing detailed designs and tender documents based on a feasibility study prepared by others under a European Investment Bank (EIB) funded program. The task start date was November 2018.
- **Task 7**-Water and Wastewater Project for Bani Kenanah in Irbid Governorate
 - Task 7 was planned to consist of water and wastewater master planning, feasibility report, design, and tender documents for the immediate and short-term needs identified and agreed upon. This scope of work changed because of a feasibility study prepared by others under an EIB-funded program. A review of the received feasibility study will precede the development of detailed

designs and tender documents to ensure the planned approach to design is acceptable to all parties. This task commenced with receipt of the feasibility study during December 2019.

▪ **Task 8**–Technical Assistance to Water Utilities

- Task 8 consists of technical assistance to water utilities providing technical, financial, customer service, energy efficiency, operation and maintenance (O&M), and other services as requested. The estimated start date is to be exercised by USAID. Activities under this task could be countrywide and will be located on the project map once identified. Task 8 with Modification No. 4 was authorized to commence on July 13, 2020 with the Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance in Amman, Jordan.

▪ **Task 9**–Additional Architect and Engineer (A&E) Services

- Modification No. 2 was signed on February 14, 2019. With this modification, USAID exercised its option to open Task 9. This will allow USAID to request CDM Smith to provide additional A&E services required in the water sector that were not previously considered in the other eight tasks. Two activities were requested prior to Modification No. 2, and third and fourth activities were requested following the signing of Modification No. 2. A&E services previously provided under two ongoing USAID contracts represent the fifth and sixth activities: (1) Water/Wastewater Infrastructure Project Phase II (WIPII) and (2) Water Sector Infrastructure Project (WSIP) were officially transferred to the USAID Jordan Water Infrastructure by USAID approval letter dated March 19, 2020. The WSIP work commenced on March 23, 2020 and the WIP II work commenced on May 1, 2020. The seventh activity, Sakan Kareem/Housing Projects Sanitary Services Projects commenced on July 16, 2020, and the eighth activity, Jordan-Iraq Power Interconnection Activity commenced on August 12, 2020. A ninth activity commenced on January 10, 2021 for CMS of the Amman Improvement Phase III, Package II for water networks. The tenth and eleventh activities, CMS for As Samra WWTP second expansion and the As Samra negotiations due diligence were approved in modification 6 on February 25, 2021. Additional, A&E services: comprise assessment of water and wastewater systems, feasibility studies, designs, and tendering support. CMS will be identified and requested by USAID in coordination with MWI/WAJ.

b. Executive Summary

(a) Short Introduction

The Project commenced on July 16, 2018 and has an end date of September 30, 2022. The goal is to achieve USAID and GOJ strategic goals. USAID supports water sector activities through improved infrastructure and management. The objective is to help USAID partners better plan their resources to ensure best utilization of limited water resources, develop strategic planning, build capacity among their staff and improve environmental protection through improvements to the water and wastewater infrastructure based on the most feasible options to satisfy future growth.

(b) Summary of Results for the Reporting Period and Key Achievements

Three of the nine tasks (Tasks 3, 4, 5) were authorized to commence on August 1, 2018. Task 6 was authorized to commence on November 1, 2018. Phase IA drilling contract CMS under Task 2 was authorized to commence during January 2019. Task 1 was authorized to start on March 18, 2019. Two activities under Task 9 were requested by USAID on September 13, 2018. Third and fourth activities were requested under Task 9 on March 12, 2019 and April 23, 2019, respectively. The fifth and sixth activities (WIPII and WSIP) were requested under Task 9 on March 19, 2020. The seventh and eighth

activities were requested under Task 9 on July 16, 2020 and August 12, 2020, respectively. The ninth activity commenced on January 10, 2021 for CMS for Amman water networks. The tenth and eleventh activities, CMS for As Samra WWTP second expansion and the As Samra negotiations due diligence, respectively, were approved in modification 6 on February 25, 2021. Task 7 was authorized to commence during December 2019. Task 8 with the signing of modification 4 was authorized to commence on July 13, 2020. The executive summary provides brief results of the eight tasks and the five ongoing activities under Task 9. Section 3 of this report provides comprehensive information of each task.

(i) **Task 1-** Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP).

USAID issued a letter to start the activities under this task. The final scope of work was accepted by MWI/WAJ and USAID in July 2019 and the work commenced. The Environmental Assessment (EA) process began during March 2020 and is being performed by WYG Group Limited (WYG), a Tetra Tech company, under EIB funding. The prequalification document was advertised in early March 2020 and eight addendums were issued. Completed questionnaires were submitted on October 1, 2020. Evaluation of the questionnaires awaits MWI/WAJ appointment of the evaluation committee. AAWDCP’s original scope was revised during June and August 2020 to increase the system capacity and delete the groundwater component. Instruction to Bidders and the Project Agreement and associated appendices development for the BOT documents is underway and portions were submitted on December 31, 2021 for MWI/WAJ review.

(ii) **Task 2-**Construction supervision–Shedeyyeh–Hasa Water Project Phase I

The CMS for the well drilling contract Phase IA of this task commenced in January 2019 with the signing of the well drilling contract (Refer to Section 3 for information of this task). The contractor, contract dates, and other details are in the following table:

Contractor	Notice of Award	Contract Signing Commencement Date (NTP)	Contract Completion Dates	Funding
Site Group Services and Well Drilling	December 18, 2018	January 14, 2019 February 7, 2019	November 28, 2020 660 calendar days +100 days casing pipe March 8, 2021	Construction – United States Department of Agriculture (USDA) Program Construction Management Services - USAID
Contract Name	Drilling, Construction, and Testing of Boreholes in the Khan Al Zabib Wellfield, Tender N. 15/2018/SW			

(iii) **Task 3-**Expansion of Zai Water Treatment Plant Project

Task 3 commenced on August 1, 2018. As agreed with MWI/WAJ and USAID, no additional water quantities are available in the KAC. Therefore, there are no current plans to expand the system. A feasibility options report was prepared and submitted on August 27, 2019 minus those items that overlap with the Japan International Cooperation Agency (JICA)-funded scope of work. MWI/WAJ advised in November 2019 that a KfW-funded energy-efficiency study was underway for the Zai water system. A coordination meeting was held on June 30, 2020 with MWI/WAJ, USAID, Miyahuna, and Dorsch (the consulting firm preparing the KfW study). JICA submitted their planned activities during the report period. In coordination with the Zai feasibility options report, the KfW study and with JICA’s

planned activities will be used to determine an effective way to design and implement the combination of proposed improvements and determine if construction funding is available.

(iv) **Tasks 4 and 5**-Expansion of Madaba and Ramtha Wastewater Treatment Plants

Tasks 4 and 5 commenced on August 1, 2018. These two tasks aim at expanding the Madaba and Ramtha WWTPs to treat the projected wastewater flows until the year 2045. The revised final condition assessment reports for Madaba WWTP and Ramtha WWTP were approved by USAID on August 25, 2019 and submitted to MWI/WAJ for review and approval. MWI/WAJ approved the Ramtha WWTP condition assessment report on May 19, 2020. The Madaba WWTP condition assessment awaits MWI/WAJ approval.

The draft feasibility report for the Madaba WWTP expansion was submitted on June 30, 2020 and presentations to USAID, Miyahuna, and MWI/WAJ were conducted.

The basis of the design report (BoDR) for the Ramtha WWTP expansion was submitted on March 9, 2020. Following a series of presentations, technical memorandums, and discussions with AFD, MWI/WAJ and Yarmouk Water Company (YWC) a letter was submitted on August 31, 2020 to summarize all comments received and responses and agreements reached on the BoDR. The design build operate (DBO) contract conditions portion tender documents were submitted on December 17, 2020 and the employer's requirements portion was submitted on February 14, 2021 and are with MWI/WAJ for approval. Prequalification documents were approved by MWI/WAJ and AFD and advertised on February 1, 2020. Completed questionnaires were received from 10 applicants on June 2, 2020 and the evaluation report is with AFD for no-objection. The Environmental and Social Impact Assessment (ESIA) Terms of Reference (TOR) and scoping session report was approved by the MoE on March 12, 2020 and the ESIA report was approved by the MoE on July 28, 2020.

(v) **Task 6**-Water and Wastewater Project for Dair Alla and Al Karamah in Balqa Governorate

Task 6 commenced on November 1, 2018, with the main objective of carrying recommendations forward into the design of a feasibility study prepared by Suez under an EIB-funded program. This task is located in the Jordan Valley.

An evaluation of the Suez feasibility study was submitted on January 10, 2019. The purpose of this report was to identify areas in the feasibility study that required clarification and further studies. The main result was to develop tender documents for a wells assessment that was reviewed by MWI/WAJ and EIB and responses to comments were provided during June 2020. A water quality analysis for Abu Ezzighan wells was completed by WAJ central lab. A bench-scale test was conducted during October 2019 at the Abu Ezzighan WTP to determine how to improve performance for two iron removal approaches—chlorination and aeration.

The well assessment tender documents were issued on December 1, 2020 and a tender from one tenderer was received on January 19, 2021 by Government Tenders Department (GTD). GTD did open the tender and requested a re-tender. The tender was reissued, and receipt is expected on April 19, 2021. A pre-tender site visit and meeting was held on March 1 and 2, 2021 with two interested contractors. The design criteria for the wastewater networks was submitted and presented to MWI/WAJ. The information from the presentation is being used to develop the BoDR for the wastewater networks. The Dair Alla WWTP BoDR was submitted on June 30, 2020. MWI/WAJ rejected the location of Dair Alla WWTP selected in the feasibility study and requested to relocate the WWTP adjacent to the site of the existing Tal Al Mantah septage facility.

The BoDR for the water networks to the 17 Dair Alla and Al Karamah localities was submitted in November 2019. A presentation of the BoDR was made to USAID and MWI/WAJ staff in both Amman and in Dair Alla during December 2019. MWI/WAJ approved the BoDR on March 5, 2020. The water network layout is based on the Suez feasibility study quantities of water required for Dair Alla and Al Karamah and assumes only the Rajeb and Abu Ezzighan wellfields. The terms of reference (TOR) for the preliminary environmental and social impact assessment for Task 6 Dair Alla and Al Karamah Water Systems was prepared and submitted to USAID and MWI/WAJ on November 23, 2020. The Arabic version of the TOR was submitted to MoE on December 2, 2020 and comments from MoE received on December 17, 2020 were addressed.

EIB will provide construction funding and has requested to focus on implementing the water improvements.

(vi) **Task 7-Water and Wastewater Project for Bani Kenanah in Irbid Governorate**

This task commenced with receipt of the feasibility study during December 2019. A kick-off meeting was held with MWI/WAJ and USAID to agree on the next steps. Coordination meetings were held on September 3 and 16, 2020. Agreement was reached for water systems to be developed with the water resources to be provided by Wehdeh wells and the Zabda reservoir. MWI/WAJ requested that the best way forward be advised regarding a wastewater system covering all Bani Kenanah or if not feasible to consider coverage for specific areas. The feasibility study evaluation report was issued on March 24, 2021 to MWI/WAJ and USAID.

(vii) **Task 8-Technical Assistance to Water Utilities**

This optional task was exercised by USAID on July 13, 2020. A Planning and Capacity Building Related to Covid-19 Monitoring Using Wastewater Surveillance in Amman, Jordan is the first activity under this task. CDM Smith worked with MWI/WAJ laboratory to establish wastewater – Covid-19 monitoring and testing systems. The procurement of additional resources and equipment was completed. GIS modeling and verification of sampling sites (manholes) and wastewater sampling and testing/analysis was conducted during November and December 2020 at 3 WWTPs and within the Ain Ghazal catchment area. The draft report was issued on February 1, 2021 and a workshop of the activity findings was held on March 10, 2021 with 47 stakeholders in attendance

(viii) **Task 9 -Additional Architect and Engineer (A&E) Services**

Three activities were completed under this task. The fourth is ongoing, the fifth and sixth activities commenced on March 19, 2020, the seventh and eighth activities were requested under Task 9 on July 16, 2020 and August 12, 2020, respectively, the ninth activity commenced on January 10, 2012 and the tenth and eleventh activities were approved on February 25, 2021 as follows:

1. **Fourth Activity: Negotiations to support MWI/WAJ for the Phase III (second) expansion of the As Samra WWTP.**

The MWI April 25, 2019 letter was sent to Special Purpose Company, As Samra Wastewater Treatment Plant Company (SPC) requesting technical and financial proposals for the second expansion. The negotiation process for the As Samra WWTP second expansion commenced on October 9, 2019 with the SPC submittal of an indicative proposal and continued with the SPC submittal of a Firm Proposal dated January 31, 2020. During the reporting period, the weekly meetings to review and agree on the commercial acceptance letter, the closing protocol, the second

restated project agreement and appendices and to determine the status of the Proparco security cooperation agreement, the payment guarantee, the tax status and the financial model have been curtailed in favor of due diligence requests from MWI/WAJ. The As Samra negotiations due diligence resulted in a report sent on March 7, 2021 and included presentation to H. E. the Minister, WAJ Secretary General and USAID on March 21, 2021 of the report findings.

2. Fifth and Sixth Activities: A&E services previously provided under two ongoing USAID contracts: (1) Water/Wastewater Infrastructure Project Phase II (WIPII) and (2) Water Sector Infrastructure Project (WSIP) were officially transferred to USAID Jordan Water Infrastructure by USAID approval letter dated March 19, 2020. The two transferred projects provide for additional A&E services under Task 9 as follows:
 - a. Water/Wastewater Infrastructure Project Phase II (WIP II)
This activity commenced on May 1, 2020 and included:
 - Rehabilitation of Zara Ma'in Water System Pump Stations 1, 2, 3, 4, and 5 - New Pump and Replacement Pumps - Contract No. 185/2016
 - Zara Main Post Reverse Osmosis Treatment Bypass Facilities – USAID issued a project implementation letter dated March 11, 2021 and signed by MWI/WAJ to commence this activity
 - Tafileh WWTP Stability Wall
 - Hasa-Amman Design-Build-Operate (DBO) Documents
 - b. Water Sector Infrastructure Project (WSIP)
This activity commenced on March 23, 2020 and included:
 - Tafileh Wastewater Treatment Plant-Contract No. 112/2016
 - Expansion of North Aqaba Wastewater Treatment Plant-Tender No. 26/T/2016
3. Seventh Activity: Sakan Kareem
 - On July 16, 2020, USAID directed CDM Smith to proceed with the Sanitary Services of Sakan Kareem Housing Project. The project includes wastewater networks and improvements for two housing locations in Amman and one in Irbid.
4. Eighth Activity: Jordan-Iraq Power Interconnection Activity
 - USAID approval for the Jordan-Iraq Power Interconnection Activity was received on August 12, 2020. The activity includes the review of four National Electric Power Company (NEPCO) prepared tender documents for switchgear, transformers, overhead transmission lines and civil works. The USAID FARA contracting mechanism will be used to reimburse NEPCO for completed milestones.
5. Ninth Activity: CMS of the Amman Improvement Phase III, Package II for water networks was completed on February 4, 2021 and transferred to another USAID funded project.
6. Tenth Activity: CMS for As Samra WWTP second expansion is expected to commence following completion of negotiations as discussed under (viii) 1 above.

7. Eleventh Activity: As Samra negotiations due diligence is reported under (viii) 1 above.

3. ACTIVITY IMPLEMENTATION

The following provides an overview of the issues and activities completed during the reporting period that either are common to some or all tasks or are required to perform the overall work of the contract. Activities accomplished during the reporting period and specific to each of the nine tasks are discussed under each task heading. Three of the nine tasks (Tasks 3, 4, 5) were authorized to commence August 1, 2018. Task 6 was authorized to commence on November 1, 2018. Task 2 was authorized to commence during January 2019. Task 1 was authorized to start on March 18, 2019. The final scope of work for Task 1 was accepted by MWI/WAJ and USAID in July 2019, and the work commenced. Task 7 was authorized to commence during December 2019. Task 8 with the signing of Modification No. 4 was authorized to commence on July 13, 2020. Two activities under Task 9 were requested by USAID on September 13, 2018. The third and fourth activities were requested under Task 9 on March 12, 2019 and April 23, 2019, respectively. The fifth and sixth activities were requested under Task 9 on March 19, 2020. The seventh and eighth activities were requested under Task 9 on July 16, 2020 and August 12, 2020, respectively. A ninth activity commenced on January 10, 2021 for CMS of the Amman Improvement Phase III, Package II for water networks. The tenth and eleventh activities for CMS for As Samra WWTP second expansion and the As Samra negotiations due diligence, respectively, were approved in modification 6 on February 25, 2021

a. Progress Narrative

(a) Mobilization

Mobilization of long-term staff and short-term (temporary duty) staff and their functions are listed in Annex VI. Sub-award details throughout the reporting period are included in Annex IX, along with the description of the purpose for the award. Staff approvals and travel/country clearance approvals have all proceeded well. Residency and work permits, where required, were finalized or are in process. Seconded WAJ and Miyahuna staff were mobilized to the project during late 2019 and early 2020. COVID-19 impacted the secondment of staff after March 18, 2020 and prevented short-term staff from travelling through the end of the reporting period. During the reporting period, equipment requested by MWI/WAJ was approved by USAID. As a result, six laptop computers and one printer/photocopier machine were purchased and turned over to MWI/WAJ.

(b) Data Collection

Requests for data, including record drawings, specifications, population census, survey information, organization charts, condition and age of equipment, and tax information, were made to the responsible agencies. The data collection information received is in Annex III.

(c) Meetings, Collaboration and Site Visits

Meetings, collaboration, and site visits conducted during the period January to March 2021 are provided in Annex VII.

(d) Monitoring, Evaluation, and Learning (MEL) Plan

The original MEL Plan was approved by USAID on January 9, 2019, and the updated plan was approved on September 12, 2019. Newly added activities under Tasks 8 and 9 have been incorporated in the Indicator Performance Tracking Table - Annex I A.

A discussion was held with USAID regarding Jordan Water Infrastructure indicators for DO2 and DO5 for the development of the CDCS 2020-2025. The DQA meeting was held on October 18, 2020. As a result, a MEL procedure and guideline document, for all project indicators incorporating recommendations of USAID, was requested and submitted to USAID on November 18, 2020 and was approved,

Annex IA of this report was updated to track the performance indicators, and they have not been included in DevResults pending USAID's updated PMP.

As part of the Collaborating, Learning and Adapting, USAID Jordan Water Infrastructure held a virtual workshop on "COVID-19 Wastewater Surveillance in Jordan: From Capacity Building to Implementation" on March 10, 2021. The workshop was attended by relevant stakeholders involved in COVID-19 measurements, wastewater, research and other parties embarking on a similar project in refugee camps. The workshop aimed at sharing accomplishments from capacity building, lessons learned, and best practices. Following the workshop, a follow up email was sent with the presentation to attendees opening a communication channel for further collaboration.

(e) Gender

To further enhance an enabling work environment for female employees, and in line with the Gender Action Plan, Annex I C, USAID Jordan Water infrastructure is addressing the provision of basic needs for female employees to participate in the workforce through the inclusion of separate adequate sanitation facilities dedicated for females in the concept design of:

- Expansion of Ramtha Wastewater Treatment Plant. Sanitation facilities for females were not included in the current Ramtha WWTP.
- Expansion of Madaba Wastewater Treatment Plant. Sanitation facilities for females do not exist in the current Madaba WWTP. Currently 21 WWTP staff members are all males.
- New Wastewater Treatment Plant in Dair Alla.

This gender-sensitive approach will be applied in other activities of the project to ensure the needs of all employees are addressed and to remove design relevant constraints that may discourage female employees from working in such facilities. In the capacity building efforts under Task 8, females played a major role in both the Capacity Building Program and the subsequent workshop. The Capacity Building trained 10 laboratory and technical staff members, 8 of whom were females. The workshop itself was attended by 47 experts, 18 of whom were females, and two of the four presenters were females, playing a key role in the knowledge transfer and presentation delivery.

(f) **Task 1- Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP).**

USAID issued a letter to start the activities under this task. The final scope of work for AAWDCP was approved by MWI/WAJ and submitted to USAID via letter dated July 2019.

The EIB-funded ESIA consultant was selected at the beginning of 2020. The consultant work performed by WYG Group Limited (WYG) a TetraTech Company, is ongoing and regular bi-weekly coordination meetings with USAID, MWI/WAJ, EIB, WYG and CDM Smith team have been held throughout the

reporting period. A workshop was held during the period to align WYG environmental recommendations with the design, regarding pigging, solids disposal, and brine pre-treatment.

The Task 1.4: Feasibility Report prepared by the EIB-funded ESIA contractor, WYG, was received in March 2021 and work to complete the preliminary design of the marine intake works and brine outfall is being expedited. Although advance information was provided, the feasibility report was necessary to confirm the design approach and assumptions for the marine works

The prequalification document for the AAWDCP was advertised on March 1, 2020 and following the issuance of eight addendums completed questionnaires were received on October 3, 2020. After announcing the establishment of the Special Procurement Committee for the Aqaba Amman Water Desalination and Conveyance Project (AAWDCP), the first meeting was held on February 16, 2021. Details are now awaited to finalize the procedure and evaluation committee nominations so that the prequalification applications submitted in October 2020 by interested companies can be evaluated. No further updates received on the committee.

Various meetings are continuing with Ministry of Public Works and Housing (MoPWH), MWI/WAJ, Gesellschaft für Internationale Zusammenarbeit (GIZ), and Miyahuna to discuss best options for delivery locations of the AAWDCP water to Amman. The electric power requirements for the AAWDCP facilities were provided to MWI/WAJ and meetings were held with the Electrical Distribution Company (EDCO), Jordan Electric Power Company (JEPCO), and National Electric Power Company (NEPCO) - the companies responsible for providing the electrical services to each facility site. EDCO indicated they were preparing the cost estimates for providing the required electrical service to all sites except the pump station located in South Amman.

As a result of the meetings mentioned above and per the contract, the current completed deliverables include:

- Updating of Sections 15 and 16 of AAWDCP 2018 Concept Study
- Desalination Plant Treatment Process Alternatives Report
- Evaluation of Salt Production from Brine Report
- MSS Sampling and Testing Report Gulf of Aqaba
- Technical Memorandum-Aqaba Water Supply
- Power Demand Estimate for NEPCO
- Design Criteria for the Conveyance System
- Alternate Pipeline Alignment around Queen Alia International Airport
- Stakeholder Consultation Workshop Report
- Market Sounding of Lenders, Developers, and Donors
- Design Criteria for Desalination Plant Report
- Technical Assessment of Pipe Materials
- Technical Memorandum - the SCADA Signal Options
- Technical Memorandum-Brine Quality Estimation for the Desalination Plant
- Desalination Plant Conceptual Design Report
- Bathymetric Survey
- Hydropower Production Potential
- Draft Instructions to Bidders and the Draft Project Agreement

The meetings with stakeholders resulted in the addition of a pipeline to Muntazah pump station to allow Miyahuna to serve Dabouq reservoir. In Aqaba, the addition will include two reservoirs to serve Aqaba: one at the SWRO plant site and one at booster Pump Station No. 2. The current plan for AAWDCP as provided by MWI/WAJ during August 2020 is the following: Phase I-SRWO 150 MCM/year and Phase II SWRO will be increased in two increments of 50 MCM to achieve a capacity of 250 MCM/year. The Wadi Rum groundwater wells are not included in the project.

Workshops have been held with White and Case, KPMG, Aljazy, Dar Al Handasah, and CDM Smith to review the risk matrix developed by White and Case required to identify issues relevant to the drafting of the project agreement and appendices. The workshops determined responsibilities for issues identified and will be summarized and provided to MWI/WAJ and USAID. The draft Instructions to Bidders (ITB) and the draft Project Agreement (PA) which involves legal, contractual, financial and technical considerations were submitted to MWI/WAJ and USAID on December 31, 2020. MWI confirmation/clarification is needed on certain major items such as exemption from customs and taxes, power cost, and tariff structure for inclusion in the RFP documents. We anticipate the RFP will now be substantially complete by the end of May 2021. Key Stakeholder discussions have been held regarding the financial model and projected water tariff and potential energy savings; reduction in power cost etc.

MWI confirmation/clarification is still needed on a number of key items as highlighted in the Draft ITB and Draft PA issued on 31 December 2020. These are listed in various correspondence and highlighted below:

- Donor Support/Project Affordability
- Credit support
- Expansion Option
- Land rights
- Power Cost
- Water Tariff structure
- Water Sector Revenues
- Steel costs
- Procurement Rules
- Operating Rules

The scoping workshop for the AAWDCP was held on March 1, 2021 in Aqaba and was well received and stakeholders raised various issues for discussion.

KFW proposed funding of a renewable energy study for Jordan was withdrawn. USAID has since requested CDM Smith to submit its proposal to undertake this work under the program. Proposal was submitted to USAID on March 9, 2021. Awaiting approval to commence with the study which will be done through our proposed subcontractor, Dorsch.

The e-Library and short video development is discussed in Section 7.

COVID-19 Impact: Refer to Annex VIII - Management and Administrative Issues.

(g) **Task 2**–Construction supervision – Shedeyyeh–Hasa Water Project Phase I

The CMS for the well drilling contract Phase IA of this task commenced in January 2019 with the

signing of the contract for Drilling, Construction, and Testing of Boreholes in the Khan Al Zabib Wellfield, Tender No. 15/2018/SW. The contractor, contract dates, and other details are included in the following table:

Contractor	Notice of Award	Contract Signing Commencement Date (NTP)	Contract Completion Dates	Funding
Site Group Services & Well Drilling	December 18, 2018	January 14, 2019 February 7, 2019	November 28, 2020 660 calendar days+100 days casing March 8, 2021	Construction - USDA Program Construction Management Services - USAID
Contract Name	Drilling, Construction, and Testing of Boreholes in the Khan Al Zabib Wellfield, Tender No. 15/2018/SW			

- The Contractor is claiming for sales taxes and custom fees paid during the period May to December 2019.
- Contractor submitted notice in November 2019 of suspension or reduction of the rate of work due to delayed payments. The contractor reduced the rate of work caused by payment delays on December 12, 2019 and resumed normal rate on February 17, 2020 as a result of payments identified in the table below. The contractor submitted a claim cost and an additional 68 days of contract time as a result of the reduction in the rate of work caused by delayed payments. The engineer's determination was submitted to MWI/WAJ committee to evaluate the determination and the committee rejected the engineer's determination.
- A committee letter approving the request for the additional 850 meters of 7-inch casing pipe was received on March 4, 2020. In a letter dated March 15, 2020, the contractor requested a variation order to cover the cost of the additional 7-inch casing pipe and well drilling. The current status as reported is that the committee approved the 100-day extension of time and the cost is to be determined.
- Test well pump is in the Site Group yard. Because of travel restrictions, the commissioning team of Baker Hughes were not able to be on-site. The Site Group presented a proposal to MWI/WAJ in the interest of moving the project that was accepted. The Site Group assisted virtually by the commissioning team assembled the pump and began the well test. The well pump testing commenced on August 20, 2020 at Well 4P and continued at Wells 4L, 4J and 4A. MWI/WAJ and Site Group agreed that if the pump for whatever reason fails, the Site Group will replace the pump at its expense as long as MWI/WAJ provides an extension to the time of completion without assessing liquidated damages. The water quality testing results for the groundwater in the four wells were provided although final reports are expected after the first of the year. During the well test for Well 4A, the contractor noticed an unusual noise in the pump. The temperature in the well water was reported at 75 degrees Celsius (C). As a result, and following consultation with the pump manufacturer, the contractor is in the process of sending the pump to the manufacturer in Abu Dhabi for service and repair. Once the pump is returned the remaining wells will be tested. During the reporting period, Site Group decided to purchase a new pump since the repair costs were equal to a new pump. The pump arrival is scheduled for late May 2021.
- Site Group submitted a letter requesting Taking Over for the completed wells consistent with the contract for completion of parts. The letter was submitted to MWI/WAJ requesting a Taking Over committee. MWI/WAJ indicated they will take over all wells at one time.
- A letter was sent to MWI/WAJ recommending the inclusion of the three optional wells pending funding. MWI/WAJ has postponed any decision on the three optional wells.

- On October 3, 2020, and after completing the 16-inch SS casing installation in the pump house section for Well 4R. However, prior to commencing the cementing operation, the contractor using CCTV and caliper survey equipment found the first joint of casing above the cement shoe collapsed/ deformed at a depth of 643 m below ground level. Following the contractor’s investigation of options and/or solutions for completing the well, the contractor has determined that retrieval of the casing is not possible. The contractor has requested that MWI/WAJ select one of the other well locations to commence drilling the seventh well. The direction from MWI/WAJ for the seventh well location (4N) was provided in a letter dated December 16, 2020 and the contractor has commenced mobilizing and drilling efforts. The current status is shown below.
- COVID-19 Impact: Refer to Annex VIII-Management and Administrative Issues.

The status of well drilling (to December 31, 2020) is provided in the following table:

Description	Well 4F	Well 4A	Well 4J	Well 4R	Well 4P	Well 4L	Well 4D	Well 4N
Mobilization	May 4, 2019	May 14, 2019	May 21, 2019	May 26, 2019	June 7, 2019	June 11, 2019	June 17, 2019	December 2020
Drilling 17¹/₂ inches x34 inches HO, conductor section to 40 meters depth	May 14, 2019	May 15 to 16, 2019	May 22 to 23, 2019	May 26 to 28, 2019	*June 2 to 9, 2019	June 11 to 13, 2019	June 17 to 19, 2019	Dec. 29, 2020 to Jan 06, 2021
Conductor piping 28 inches, 40 meters and cementing	May 14 to 16, 2019	May 20 to 23, 2019	May 24 to 27, 2019	June 1 to 2, 2019 and June 11, 2019	June 10 to 11, 2019 and June 17, 2019	June 15 to 17, 2019 and June 22, 2019	June 21 to 23, 2019	January 08 to 11, 2021
Drilling 22 inches hole-pump house section	May 18 to September 29, 2019-40 to 649 meters, drill was stuck at 468 meters from June 29- August 29, 2019	June 24 to Sep 11, 2019-310 to 664 meters	July 10 to September 6, 2019 237 to 664 meters	September 20 to October 3, 2019 202 to 517 meters	July 27 to September 29, 2019 397 to 664 meters	July 10 to September 11, 2019 302 to 664 meters	September 16 to October 19, 2019 400 to 664 meters	Started on January 13, 2021 reached 664 m depth preparation is ongoing for casing and cementing
Drilling 24-inches hole using hammer bit, pump house section		June 17 to 23, 2019-42 to 310 meters	June 25 to July 1, 2019 43 to 237 meters	September 13 to 19, 2019 41.5 to 202 meters	July 10 to 26, 2019 43 to 397 meters	July 4 to 10, 2019 43 to 302 meters	September 07 to 15, 2019 43 to 400 meters	
Install casing 16 inches and cementing	December 5 to 8, 2019, 657.24 meters	August 29 to September 3, 2019 657.47 meters below ground level	October 16 to 20, 2019 657.89 m BGL	The drilling experienced a loss of circulation due to a fault. SG is performed cementing operations to cover 80 meters of the	October 26 to 29, 2019 657.57 meters BGL	January 31 to February 3, 2020 658.1 meters BGL	February 25 and 26, 2020 657.38 meters BGL	

Description	Well 4F	Well 4A	Well 4J	Well 4R	Well 4P	Well 4L	Well 4D	Well 4N
				well to seal the fault but the attempts failed. The drilling of this section was completed as blind drilling (without circulation) October 01 to 02, 2020 654.86 m BGL. The 16-inch casing was installed without conducting cement operation due to the defect issue that mentioned above in the report.				
Drilling 12 ¼ inch hole – Production Section	December 9, 2019 to April 15, 2020 664 to 1200 m Drill stuck April 6, 2020 at 1133 meters. The drill was retrieved on July 17, 2020 and drilling was completed	September 10 to 15, 2019 664 to 720 meters 1300.84 meters BGL completed mid-September 2020	November 6 to December 10, 2019 1290 meters BGL	This well has been abandoned.	November 3 to December 4, 2019 1210 meters BGL	February 4 to March 2, 2020, 664 to 1243 meters	March 1 & 31, 2020, 664 to 1117 meters	
Install 7-inch Screen/Casing	August 03, 2020 1247.72 m BGL Top of Hanger @ 643.11 meters BGL	Finished the installation of screen and casing September 30, 2020	December 22 to 23, 2019 1283.21 m BGL Top of Hanger @ 643.73 meters BGL		December 15 to 16, 2019 1200.78 m BGL Top of Hanger @ 643.39 meters BGL	Finished the installation of screen and casing on March 17, 2020	Finished the installation of screen and casing on May 2, 2020	

Description	Well 4F	Well 4A	Well 4J	Well 4R	Well 4P	Well 4L	Well 4D	Well 4N
Development (hrs)	April 27 to May 5, 2020 157.5-hour of washing and surging, effective 120-hr. regarding to the BOQ in the contract	September 30 to October 06, 2020 116-hour of washing and surging, effective 120-hr. regarding to the BOQ in the contract	December 28, 2019 to Jan. 06, 2020 214.5 hours surging		December 19 to 28, 2019 135.8 hours surging	Finished April 2020	Finished May 5, 2020	
Well Pump Test and Water Quality Sampling and Testing	Pumping test postponed due to the problem undergone to the pump as mentioned above	October 12 to 23, 2020 Steady rate test for 168 hr.	September 28, 2020 and continuing		August 20 to August 31, 2020	September 9 to 20, 2020		

(h) **Task 3–Expansion of Zai Water Treatment Plant Project**

This task commenced on August 1, 2018, with the task’s main objective to evaluate the different options for increasing the Zai water supply scheme’s capacity, which will allow for the anticipated additional water quantities from the swap agreement between Jordan and Israel. Currently, the additional anticipated water quantities planned to be available in the KAC have not fully materialized. Therefore, expansion of the Zai water treatment system is not currently planned.

The status of Task 3, the Zai Water System upgrades and improvements is as follows:

1. Feasibility/options report was prepared and submitted on August 27, 2019 minus those items that overlap with the proposed Japan International Cooperation Agency (JICA) funded scope of work.
2. MWI/WAJ advised in November 2019 that a KfW-funded energy efficiency study was underway for the Zai water system. That study is ongoing.
3. In July 2020 JICA provided MWI/WAJ with the proposed upgrades and improvements that could be implemented under their program as follows:
 - a. IPS-Four traveling screens and three mixed flow pumps
 - b. Raw Water PS 1 to 4-Twelve sets of horizontal centrifugal pumps and motors and pipe appurtenances
 - c. Transmission PS 5-Three sets of horizontal centrifugal pumps and motors and pipe appurtenances

The JICA list does not include other items from the original JICA proposal such as chemical feed system upgrades, chlorination facility upgrade, sludge handling improvements, and PAC system upgrade.

Next Steps: MWI/WAJ and Miyahuna will coordinate between all ongoing projects (JICA, KfW, USAID) and will provide directions regarding the items that will be moved forward under USAID Jordan Water Infrastructure project and into detailed design pending availability of funding.

(i) **Tasks 4 and 5**–Expansion of Madaba and Ramtha Wastewater Treatment Plants

These two tasks commenced on August 1, 2018. The two tasks aim at expanding the Madaba and Ramtha WWTPs to treat the projected wastewater flows until 2045.

The Madaba and Ramtha WWTPs revised final condition assessment reports were approved by USAID on August 25, 2019 and submitted to MWI/WAJ for review and approval. MWI/WAJ approved the Ramtha WWTP condition assessment report on May 19, 2020. The Madaba WWTP condition assessment awaits MWI/WAJ approval.

The draft feasibility report for the Ramtha WWTP expansion was submitted on July 4, 2019. The updated feasibility study for the Ramtha expansion was submitted September 16, 2019, and addressed comments received from USAID and the MWI/WAJ concept of the phased approach. MWI/WAJ approved the Ramtha WWTP feasibility study report on May 19, 2020.

The draft basis of the design report (BoDR) for Ramtha was submitted March 9, 2020 and the draft BODR was presented to MWI, WAJ, YWC, USAID, and AFD on March 8 and 11, 2020. A series of TMs were issued to address MWI/WAJ and YWC BoDR comments. AFD comments on the submitted draft BODR were received on August 7, 2020. A letter was issued on August 31, 2020 that summarized all comments provided by MWI/WAJ, YWC, and AFD on the BoDR with their resolution.

The prequalification questionnaire for the Ramtha WWTP expansion following MWI/WAJ and AFD approvals was advertised on February 1, 2020 and completed questionnaires were received from 10 applicants on June 2, 2020. The prequalification evaluation report is with AFD for approval and no-objection.

The ESIA TOR and scoping session report for the Ramtha WWTP expansion was approved by MoE on March 12, 2020. The ESIA was submitted as final on June 23, 2020 following reviews by USAID, AFD, and MWI/WAJ. The Arabic version of the ESIA was submitted to the MoE on July 1, 2020 and approved by the MoE on July 28, 2020.

AFD is planning to finance construction for the Ramtha WWTP expansion, Phase 1. AFD requested the tender documents follow AFD's contracting mechanism for design-build-operate (DBO). A comparison of the FIDIC Gold and the Yellow Books technical memorandum was submitted on August 24, 2020, and recommended proceeding with the *FIDIC Conditions of Contract for Design, Build and Operate Projects, Gold Book*, First Edition 2008 as revised in the AFD Standard Procurement Document. A workshop with MWI/WAJ, USAID, AFD and other key project stakeholders was held on September 22, 2020, to outline the requirements for the Ramtha WWTP expansion design-build construction contract documents; specifically, the General and Particular Conditions. The tender documents excluding the employer's requirements were submitted to MWI/WAJ, USAID and AFD for review and comment on December 17, 2020 and a meeting with MWI/WAJ, AFD and YWC was held on 11 January 2021 to review these documents and address outstanding items. The project purchased and submitted the requested the FIDIC gold book for MWI/WAJ

The geotechnical investigation work agreement for Madaba and Ramtha WWTP was signed with ACES on September 3, 2020. The geotechnical work for Ramtha WWTP commenced on October 1, 2020 and was completed on January 12, 2021. The Madaba WWTP geotechnical investigation commenced on January 17, 2021.

A technical workshop with MWI/WAJ, YWC (Task 5 Technical committee) and USAID was held on 14 October 2020, to discuss the Ramtha WWTP technical requirements of the “Employer’s Requirements” and to present the draft tender design drawings to the technical committee before submitting the draft DBO tender documents. CDM Smith received comments via emails from three members of the technical committee. All received comments were compiled including our responses and a letter was issued to the MWI/WAJ on December 6, 2020. The tender technical documents “preliminary design report, drawings and specification” were submitted to MWI/WAJ and USAID on February 14, 2021.

CDM Smith conducted additional data confirmation sampling with RSS for the Madaba and Ramtha WWTPs. The wastewater sampling program started on September 12, 2020 and finished in October 2020.

The draft feasibility report for the Madaba WWTP expansion was submitted on June 30, 2020 and three presentation meetings were held on July 21, August 5, and September 14, 2020. Copies of the study were sent to Miyahuna and the WWTP operators. The MWI/WAJ technical committee inquired about the plan to pump Madaba wastewater to South Amman WWTP. CDM Smith provided previous correspondence and technical memorandums that addressed the plan. MWI/WAJ provided notice on September 21, 2020 to expand the Madaba WWTP and not to connect to South Amman WWTP. MWI/WAJ advised that Madaba sludge can be permanently stored with South Amman sludge at Al Jizah old WWTP site that is approximately 1 km from South Amman WWTP. The site is available because MWI/WAJ has plans to decommission the Al Jizah WWTP and divert the flow to the South Amman WWTP. At a meeting to present the feasibility study on December 30, 2020 attended by MWI/WAJ, USAID and Miyahuna the technical committee selected the following treatment alternative: BNR (plug flow) system with primary clarifiers and conventional anaerobic digestion with future CHP. Plan will be to now take this alternative forward into the design stage. A site visit to Madaba WWTP was conducted on January 11, 2021, with the project technical committee to discuss the selected alternative and their comment on the submitted FS report, we are waiting MWI/WAJ formal letter that documents all comments. The Madaba WWTP expansion draft feasibility study report will be finalized following to the received MWI/WAJ’s letter stating their selected treatment alternative and comments on the draft report. CDM Smith will provide responses to all received comments and will work on finalizing the feasibility Study Report.

CDM Smith started work on the BODR for the expansion of the Madaba WWTP on January 12, 2021 based on the selection made by MWI/WAJ on 30 December 2021 and project technical committee feedback received on 11 January 2021.

In the MWI/WAJ Madaba WWTP technical committee letter dated 11 January 2021 identified that sludge had been buried on WWTP site some years ago and this sludge will have to be relocated to construct the WWTP expansion. It also advised that this old sludge should be relocated to the WAJ property at the south end of the WWTP site. CDM Smith will have RSS sample this old sludge so that appropriate containment for the old sludge can be designed.

A site visit to Madaba WWTP conducted on March 9, 2021 to the mechanical dewatering machine and to investigate the location of the remaining geotechnical boreholes and to check the possibility of relocating boreholes to avoid wet areas.

The preliminary design for the Madaba WWTP expansion is proceeding and going through internal technical from March 29 to April 9. Submission of the Basis of Design Report (BODR) is anticipated to be in early May.

COVID-19 Impact: Refer to Annex VIII-Management and Administrative Issues.

(j) **Task 6** – Water and Wastewater Project for Dair Alla and Al Karamah in Balqa Governorate

Task 6 commenced on November 1, 2018, with the authorization to proceed. The EIB-funded feasibility study and other documentation developed under the EIB work was received in part during November and December 2018.

Evaluation of the SUEZ-Prepared Feasibility Study

An evaluation of the Suez feasibility study was submitted on January 10, 2019. The purpose of this study was to identify areas in the feasibility study that required clarification and further studies. The evaluation revealed the need to update the recommended infrastructure needs due to the deficiency in the outcome of the study in the water supply system and sewer collection system. One of the main results of the evaluation was the need to develop tender documents for a wells assessment to determine the condition of the existing wells available to supply the project area and the need to drill additional wells. A well water quality analysis for Abu Ezzighan wells was completed by the WAJ central lab. A bench-scale test was completed at the WTP, which determined ways to improve performance for two iron removal approaches—chlorination and aeration. Based on discussions with MWI/WAJ, it was concluded that the task will include improvements to the water system for 17 localities in Dair Alla and Karamah and wastewater collection systems and WWTP for the northern 10 localities in the Dair Alla area. Further instruction from WAJ requested CDM to ignore water supply from Karamah and Daharet Erramel due to problems with the private owners of these sources and focus only on Abu Ezzighan and Rajeb wells to supply all the project area. As a result, there was a huge difference between CDM recommendations and the feasibility study which resulted in higher costs in the CDM recommendations than in the feasibility study.

Well Assessment:

The well assessment tender document was submitted during June 2019 and was reviewed by MWI/WAJ and EIB during May 2020. EIB asked for a revised invitation to allow international firms to review and purchase the tender documents online because of the current travel restriction. MWI/WAJ and EIB agreed on the mechanism of allowing international firms to participate in the bidding process. EIB provided their no-objection. The tender document was arranged for WAJ procurement but MWI/WAJ advised the tender process will be with the Government Tenders Department (GTD). Following the necessary revisions EIB and GTD approved the tender documents. The well assessment tender documents were advertised on December 1, 2020. A site visit and pre-tender meeting was held on December 14 and 15, 2020. Two addendums were issued, and tenders were received on January 19, 2020 from one tenderer. The tender was not opened by GTD but requested a retender. The retender was advertised on February 16, 2021, site visit/meeting

were held on March 1 and 2, 2021 and tenders are due on April 19, 2021 and two tenders are expected. EIB is funding the well assessment as part of the project funding agreement.

Water Networks and Abu Ezzighan RO Plant:

The draft BODR for the water supply excluding the well field and RO Plant was submitted in November 2019 and received MWI/WAJ comments. MWI/WAJ approval of the BoDR was received on March 5, 2020. Comments on the BoDR were received in March 2020 from USAID and resulted in a Technical Memorandum dated August 2, 2020 on the intermittent versus continuous Water Supply Scenarios. The TM was presented to the USAID and MWI/WAJ on August 10, 2020. MWI/WAJ accepted the continuous water supply scenario.

The final BODR of the water network was submitted to USAID and MWI/WAJ on October 22, 2020. Comments from USAID were received on November 3, 2020 and our responses to USAID comments were submitted on November 15, 2020.

The work is ongoing on the preparation of the 60 percent design phase for the first package of the water system. The designs for the priority localities in the Rajeb wellfield area and Al Karamah area water networks are ongoing. The water network layout is based on the assumption the Rajeb and Abu Ezzighan wellfields will have enough water sufficient to 2050, which is to be determined from the results of the well assessment.

The extent of improvements to the Abu Ezzighan RO Plant will be dependent on the wells' assessment.

CDM Smith met with MWI/WAJ land department on December 15, 2020 and inquired about the status of the land acquisition process, according to land acquisition department. On Tuesday January 19, 2021, CDM Smith received copies of coordination letters regarding the land allocation and acquisition for the project facilities. We were informed on Feb 23 to relocate two of Karamah reservoirs due to complication in the land allocation / acquisition process for these specific lands. DMD is collecting data for new proposed locations.

A coordination meeting with the MoPWH and MWI/WAJ was held on January 11, 2021, to discuss MoPWH requirements of the pipelines along and crossing the main roads. MoPWH requested alternatives for the pipelines along and crossing Al Ghour main road (Road 65), as the road is fully occupied, and they will not approve any pipeline along or crossing this road. MoPWH requested drawings showing all the pipelines in that area and they will respond officially. CDM submitted a letter to MWI/WAJ including all the pipelines to send to MoPWH.

The draft Preliminary ESIA based on the MoE and EIB requirements for the water networks was submitted for review to USAID and MWI/WAJ on November 23, 2020. Responses to December 2, 2020 USAID comments were provided on December 10, 2020. The Arabic version of the TOR for the PESIA was submitted to MoE on December 2, 2020. CDM Smith is coordinating with the MoPWH through MWI/WAJ regarding the requirement of the pipelines along the main roads.

Wastewater Networks:

The work is ongoing on the preparation of the BODR. MWI/WAJ requested to minimize the number of the Pump Stations as much as possible, accordingly, we submitted a Technical Memorandum on July 25, 2020 to discuss different alternatives. Both the draft WWTP BODR mentioned below and the TM were presented to the USAID and MWI/WAJ in a meeting on July 27, 2020. A technical memorandum recommending the Dair Alla wastewater system layout based

on the Suez feasibility study was submitted on September 9, 2019. Nine pump stations were identified and MWI/WAJ needs to decide which pump stations to include and which ones to exclude. The MWI/WAJ decided to proceed with reducing the number of Pump Stations and to lay the main trunk line within Zarqa River wadi. The hydro-geological study to evaluate the required depth and protection of the pipeline in the wadi is ongoing and the survey work was completed. The relocation of the WWTP to Tal Al Mantah site requested by WAJ will also impact the wastewater networks layout and design. Accordingly, a Technical Memorandum Dair Alla Design Definition Memorandum was submitted to USAID and MWI/WAJ for approval on December 17, 2020 that defines all changes both on the WWTP and networks that are expected as a result of the WWTP relocation.

Another coordination meeting held on February 14, 2021 and attended by MWI/WAJ, JVA, and CDM Smith to discuss if JVA has any updated requirements and to make sure no changes on the previous provided requirements. All meeting agreements will be documented in a formal MOM. JVA mentioned that they will study all crossing locations case by case and will provide approval accordingly.

A site visit to Dair Alla wastewater project and to investigate the location of all proposed crossings with KAC conducted on March 10, 2021 and attended by JVA and MWI/WAJ. MOM was issued that documented all site visit agreements.

MWI/WAJ to follow up with the JVA regarding the land acquisition requirements for Dair Alla water and wastewater facilities.

WWTP

- The draft Dair Alla WWTP BoDR was submitted on July 2, 2020, and technical memorandum on the Dair Alla Sewer Collection System Alternatives was submitted on July 25, 2020. Both draft WWTP BODR and the TM were presented to the USAID and MWI/WAJ in a meeting on July 27, 2020. MWI/WAJ requested to relocate the WWTP to the existing Tal Al Mantah WWTP site.
- A request from MWI/WAJ received on the August 4, 2020 to update the submitted draft BODR for Dair Alla WWTP based on the new location of the WWTP, with the effluent discharging to the Jordan river (instead of the KAC) and to use effluent quality standard JS893/2006 Category 1 “Discharge to Wadi”.
- USAID inquired if the agricultural areas nearby the Jordan River were considered to benefit from the treated effluent reuse? CDM Smith explained that MWI/WAJ direction was for the treated effluent to comply with the standard JS893/2006 Category 1 for “discharge to wadi”. Although the discharge to wadi standard has high carbon limits than the Category 3A “effluent reuse for the irrigation of cooked vegetables”, the wadi discharge limit in Category 1 for phosphorus is lower. To design the WWTP to meet the Category 1 phosphorus limit that process modeling also shows that the Category 3A criteria will also be met, allow the Dair Alla WWTP effluent to be reused for the irrigation of cooked vegetables. However, according to the manager of the Tal Al-Mantah septage treatment facility none of the farmers around have expressed any interest in the effluent water. It should also be noted that the Jordan river is suffering from reduced flows and this additional water would benefit the river environment. CDM Smith conducted additional data confirmation sampling with RSS for the Tal Al-Mantah septage receiving facility. The wastewater sampling program started on September 12, 2020 and finished in October 2020.
- CDM Smith prepared a design definition memorandum to define and document the changes based on the MWI/WAJ request of changing the WWTP location before we proceed with updating the

BODR. The design definition memorandum was submitted to MWI/WAJ and USAID December 17, 2020, and a presentation meeting conducted on January 13, 2021 to present the submitted TM and to agree about the next step. In the design definition memorandum, CDM Smith recommended treating the septage delivered to Tal Al-Mantah at the new Dair Alla WWTP because it is more cost efficient (construction and O&M) to do this at one facility then at 2 side-by-side facilities. During this meeting, MWI/WAJ informed CDM Smith that they have issued a contract for the rehabilitation of the existing Tal Al Mantah WWTP that will also install solar panels on part of the site proposed for the Dair Alla WWTP. MWI/WAJ provided CDM Smith with the drawings and project documents to avoid locating the new WWTP in the same location of that project. The provided information on the Tal Mantah facility expansion project will be incorporated with Dair Alla WWTP design.

- During the meeting on January 13, 2021, MWI/WAJ stated their preferred alternative for the sludge treatment system was Alternative A, this recommendation will be confirmed in a letter. CDM Smith advised MWI/WAJ that we require their comments formally on the design definition memorandum include the selected solids treatment alternative to be included in the next design stage deliverable.
- CDM Smith collected the land ownership information about the new location of the WWTP. It was concluded that the lands that will be used for the new Dair Alla WWTP is owned by JVA and the Natural Resources Authority and requested from MWI/WAJ to follow up on the land allocation for the land needed to the WWTP.
- USAID has a concern regarding the project finish date specially with the delays from MWI/WAJ decisions. Accordingly, USAID requested an updated schedule for Tasks 6 and 7 considering Jordan Water Infrastructure project finish date.
- The desktops geotechnology study identified that earth faults likely exist on or near the site for the Dair Alla WWTP at Tal Al-Mantah. The field geotechnical investigation should be able to identify the location of faults, if any. If faults are present, they could have a significant impact on the WWTP layout and cost, but we will not know the extent of this until the geotechnical investigation is completed.

General

CDM Smith supported MWI/WAJ regarding land acquisition. All plots that require acquisition were surveyed, and all required official documents were obtained from the different organizations including Department of Land and Survey (DLS) and the municipalities. Land acquisition is crucial for conducting soil investigations required for the design of water tanks, pump stations and other structures.

COVID-19 Impact: Refer to Annex VIII-Management and Administrative Issues.

(k) **Task 7 – Water and Wastewater Project for Bani Kenanah in Irbid Governorate**

This task commenced with receipt of the feasibility study during December 2019. The feasibility study was prepared by Atkins and Engicon under the EIB-funded work. The initial review of the feasibility study identified a concern regarding the assumed water supply sources and the high cost of the proposed wastewater systems which will have a major impact on the design work. Several meetings were conducted with MWI/WAJ, USAID, GIZ, and EIB to define the next steps. It was agreed to consider a declining production rate of the local well fields based on a scenario that will be provided by the GIZ consultant, and other new identified sources for which WAJ will provide details. Accordingly,

it was agreed to refine the scope of work for this task to include a review of the feasibility study based on the new information that will lead to advancing the designs for the selected new and upgraded water and wastewater facilities.

The evaluation report of the feasibility study report prepared by others was submitted to MWI/WAJ, USAID and Yarmouk during March 2021 for review and comment. The report will address the water and wastewater sides and will provide evaluation and recommendation for MWI/WAJ water and wastewater affairs decision. The plan is to discuss the evaluation report with USAID, MWI/WAJ and YWC to agree on the way to move forward.

The feasibility study project assumptions related to the project water resources are not valid anymore owing to changed conditions since the completion of the feasibility study. Therefore, a detailed evaluation of the water resources was required. On April 14, 2020, Dr. Armen of GIZ forwarded recent information on the Bani Kenanah water resources. The information was shared with USAID.

MWI/WAJ conducted a progress meeting with EIB in May 2020 to discuss the progress of EIB projects. MWI advised that during that progress meeting EIB asked about the water resource assessment for Bani Kenanah. EIB advised that part of the loan can be used for the wells' assessment.

A coordination meeting was held with MWI/WAJ on September 3, 2020 to discuss Bani Kenanah water resources and the needed wells assessment project. MWI/WAJ is concerned regarding the high non-revenue water (NRW) in the area. During the coordination meeting, MWI/WAJ directed CDM Smith to proceed with the evaluation of the feasibility study prepared by others, assuming that Zabda reservoir will cover all needed water quantities in addition to Al Wehdeh wells that are currently being drilled.

Another coordination meeting with MWI/WAJ wastewater affairs was held on September 16, 2020. The following items were discussed:

- i. Bani Kenanah water consumption is based on the Water Reallocation Policy requirements that the water consumption for Bani Kenanah is 80 lpcd.
- ii. MWI/WAJ requested to verify the water consumption rate with MWI/WAJ water affairs as to whether the assumption is correct based on the available water resources. This figure will affect the wastewater system design.
- iii. CDM Smith explained that based on the initial evaluation of the FS report and site analysis, all presented wastewater system options are nearly identical.
- iv. MWI/WAJ requested a prioritization table for serving the areas of Bani Kenanah District; should be based on the number of populations, feasibility of constructing the wastewater system, number of proposed pumping stations, connection to the existing or new WWTPs, in addition to the associated cost.
- v. MWI/WAJ requested that CDM Smith make a clear recommendation as to whether Bani Kenanah wastewater system as a whole or for specific areas is feasible or not so that MWI/WAJ can take the decision.

MWI/WAJ inquired if CDM Smith can start preparing the draft tender documents for Bani Kenana wells assessment project. CDM Smith advised to wait until the tendering process of Dair Alla wells assessment project is completed in order to incorporate the comments that will be raised by bidders to avoid any work duplication. MWI/WAJ accepted this plan.

A site visit with WAJ water affairs was conducted on March 7, 2021 to the project area and to the proposed reservoir locations to facilitate MWI/WAJ review process and the decision making.

COVID-19 Impact: Refer to Appendix VIII-Management and Administrative Issues.

(l) **Task 8–Technical Assistance to Water Utilities**

This optional task was exercised by USAID on July 13, 2020. A Planning and Capacity Building Related to Covid-19 Monitoring Using Wastewater Surveillance in Amman, Jordan is the first activity under this task. CDM Smith worked with MWI/WAJ laboratory to establish the following wastewater – Covid-19 monitoring and testing systems and the activities:

Technical Memorandum (TM) Planning and Capacity Building Related to Covid-19 Monitoring Using Wastewater Surveillance. On August 11, 2020 – the TM identified resources and equipment that are required to support an effective sampling and testing program and was the result of collaboration with the Water Authority of Jordan (WAJ) Central Laboratory on the wastewater testing program.

Events under the Activity:

- Equipment Procurement from August to November 2020
- GIS Analysis from August to November 2020
- Site Visits to Ain Ghazal and WWTPs to identify sampling locations November to December 2020
- Training COVID-19 Health and Safety Protocols November 26, 2020
- Sampling from Manholes November/December 2020
- Laboratory Analysis of Samples Week of November 29, 2020 and for Week of December 6, 2020
- Sampling and Laboratory Analysis during December 2020
- The draft final report was submitted to USAID and MWI/WAJ on January 27, 2021. Comments were received from USAID on February 2, 2021 and were responded to on February 21, 2021.
- A workshop with the project key stakeholders conducted on March 10, 2021 reviewed report findings, discussed MWI/WAJ forward plans to continue the surveillance program. and to answer stakeholders’ questions, so they could be incorporated into the FINAL report submission. The workshop received online media exposure, was attended by 40 plus stakeholders and was well received by all involved.
- Next Step: Finalize the project final report based on the received USAID comments and to incorporate the workshop discussed items.

(m) **Task 9 -Additional Architect and Engineer (A&E) Services**

Modification No. 2 was signed on February 14, 2019. With this modification, USAID exercised its option to open Task 9. Two activities under Task 9 were requested by USAID on September 13, 2018, a third on March 12, 2019, and a fourth on April 23, 2019. A&E services previously provided under two ongoing USAID contracts: (1) Water/Wastewater Infrastructure Project Phase II (WIPII) and (2) Water Sector Infrastructure Project (WSIP) were officially transferred to USAID Jordan Water Infrastructure by USAID approval letter dated March 19, 2020. Two proposals were approved by USAID in July and August 2020: (1) Jordan-Iraq Power Interconnection Activity and (2) Sakan Kareem/Housing Projects Sanitary Services Projects.

- (a) Technical assistance to support the Phase III expansion of the As Samra WWTP. Completed.

- (b) Technical assistance to analyze and design energy interventions to support the water sector. Completed.
- (c) Legal review in support of the Phase III expansion of the As Samra WWTP. Completed.
- (d) Negotiations to support MWI/WAJ for the Phase III (second) expansion of the As Samra WWTP.

MWI letter was sent on April 25, 2019 to the SPC requesting technical and financial proposals for the second expansion. The SPC submitted an Indicative Proposal on July 31, 2019 which was rejected by MWI on August 20, 2019, with a request to submit a more detailed proposal. The negotiation process for the As Samra WWTP second expansion commenced on October 9, 2019, with a meeting chaired by H.E. Minister of MWI, H.E. Secretary General, MWI negotiation committee, USAID, the SPC, and the CDM Smith team. The result of this negotiation process was the drafting and finalizing of a Firm Proposal letter that was sent by the Minister of MWI to the SPC on December 19, 2019.

The SPC submitted its Firm Proposal dated January 31, 2020 on February 2, 2020. Receipt of the Firm Proposal began the next step in the negotiation process. On May 7, 2020, the SPC advised MWI/WAJ that the financing mechanism changed with the deletion of Investco and the mezzanine financing would be between Proparco and the SPC without Investco.

During the reporting period, weekly coordination meetings were curtailed in favor of requested due diligence questions being asked by MWI/WAJ. The commercial acceptance letter, the closing protocol, the second restated project agreement and appendices, status of the Proparco security cooperation agreement, the payment guarantee, the tax status, milestone payment structure, and the financial model are all issues that remain to be finalized if the goal is to achieve a successful commercial and financial close with the SPC.

SWECO was subcontracted in late January 2021 for a technical due diligence review of the As Samra WWTP expansion as requested by MWI/WAJ. A meeting was held on February 4, 2021 with his H.E. the Minister, MWI/WAJ staff, USAID and SWECO to confirm the scope of work of the technical due diligence review. The SWECO report was issued on March 7, 2021 and a meeting was held on March 21, 2021 with his H.E. the Minister and Secretary General, and USAID at which SWECO presented the technical results of the due diligence report and future meetings are planned to determine the strategy for the As Samra wastewater catchments and treatment options.

COVID-19 Impact: Refer to Annex VIII-Management and Administrative Issues.

- (e) Water/Wastewater Infrastructure Project Phase II (WIP II)
This activity which commenced on May 1, 2020 includes:
 - Rehabilitation of Zara Ma'in Water System Pump Stations 1, 2, 3, 4, and 5-New Pump and Replacement Pumps-Contract No. 185/2016

Contractor	Tender Opening Notice of Award	Contract Signing Notice to Proceed Commencement Date	Contract Completion Dates	Funding
JV – Gama Engineering and Contracting Establishment and United Enterprises Company	Technical: 25 October 2017 Financial: 8 February 2018 Notice of Award: 21 May 2018	8 August 2018 13 August 2018 12 September 2018	730 days or 12 September 2020	Construction – USAID and Government of Jordan (GoJ) CMS – USAID

The Zara Ma'in project scope is to supply and install five new pumps, pump heads, and motors with one set in each pump station, in addition to 20 new pumps with four sets in each pump station. The purpose of this activity is to enhance efficiency and reliability to reduce power consumption.

The project is expected to be completed by end of year 2021 as a result of delay in manufacturing pumps and the COVID-19 pandemic. During 2020, the first batch (five pumps) were on-site, and five motors were delivered to the contractor's stores however when the pumps were inspected visual defects were noticed in the last stage impeller and the engineer requested further on location testing. Following a dye-penetrant test, it was confirmed that the impeller had cracks that could result in failure. After discussion with Pentair, the pump manufacturer, it was agreed to use the received pumps as temporary pumps. Pentair advised that they changed the casting vendor to a North American casting firm. This will include the manufacturing of 25 new pumps. The new schedule has the first set of 5 pumps due to arrive in May 2021 with the last pumps due December 2021.

The JV contractor installed the temporary five pumps and motors including all electrical panels and valves and will be ready to initiate service on the five pumps during 2020.

The first batch of the new pumps (five pumps) were factory witness tested in February and March 2021 at Pentair and attended by CDM Smith representative from Kansas office. The results of the testing exceeded the contract requirements of 89% efficiency, the plan is to ship the first batch of pumps by early April 2021 (revised to early May 2021).

The contractor's claim for time extension has been reviewed and a response sent.

- **Zara Main Post Reverse Osmosis Treatment Bypass Facilities**
 Cost proposal for a potential variation order was not recommended by the committee that was formed by MWI/WAJ. MWI/WAJ in a letter to USAID requested USAID approval to tender the proposed facilities in an open tender. The preparation of the prequalification and tender documents for the Zara Main Bypass Facility is expected to commence following the signing of a project implementation letter dated March 11, 2021 between USAID and MWI/WAJ.
- **Tafileh WWTP Stability Wall**
 The engineering services for the stability wall will be to design the new wall and to negotiate a fair price with the contractor, Hussein Atieh & Sons Company (HAE) for the wall construction. Current status: An MWI/WAJ committee was established for the purpose of reviewing the contractor's proposed cost. Following discussions with the committee and

additional input from the geotechnical firm, ACES, the committee was generally agreeable to a revision to the stability wall which would not require piles and would require a change of location to one of the internal roadways.

- **Hasa-Amman Design-Build-Operate (DBO) Documents**

Engineering services will entail development of DBO tender documents for a water treatment facility, groundwater pumps and wellheads and wellfield pipelines for the seven wells currently under construction in the Khan Az Zabeyb wellfield in central Jordan. The water treatment facility will be designed to accommodate the quality of the groundwater which will be determined during the well pumping tests. The location of the remaining 13 wells was agreed upon with MWI/WAJ with the objective to identify the land lots that are needed to be acquired for the well sites and for the wellfield collector pipe network. The Shedeyyeh-Hasa, Technical Memorandum on Radiological Assessment of Hasa Amman Khan Al Zabib Well Supply was submitted on November 25, 2020. The memorandum summarized the test results and identified issues with respect to treatment of the water but also to solids management. The technical memorandum was discussed with USAID on December 8, 2020 and recommended bench scale testing to determine groundwater treatment options. A laboratory was identified in the US and a proposed budget for the testing required was submitted to USAID on March 22, 2021. The samples of groundwater will require assistance from the contractor, Site Group. Site Group has indicated to mobilize now to capture groundwater samples to one of the completed wells would require a variation order with costs or wait until a new pump arrives on-site at the end of May 2021 and samples could be taken during pumping tests of one of the three remaining wells at no cost. The difference will be 3 months for sample retrieval. The decision is with MWI/WAJ.

(f) **Water Sector Infrastructure Project (WSIP)**

This activity commenced on March 23, 2020. However, because of COVID-19 both construction sites were closed on March 18, 2020. Construction and engineering staff received permits on April 20, 2020 that allow staff to travel to the construction sites. The contractor cleaned and disinfected the sites temporary facilities on April 22 and 23, 2020 and construction commenced on April 25, 2020. The construction activities include:

- **Tafileh Wastewater Treatment Plant-Contract No. 112/2016**

Contractor	Commencement Date	Contract Completion Dates	Funding
Hussein Atieh and Sons, Inc. (HAE)	January 20, 2018 Site Access November 1, 2018	Construction January 11, 2021 Covid 70 days extension, March 22, 2021 Operation/Maintenance January 11, 2023	Construction – USAID and Government of Jordan (GoJ) CMS – USAID

The Tafileh Wastewater Treatment Plant will include replacement and demolition of the existing WWTP with a new plant constructed on the existing site and a new site to the west of the existing WWTP with a capacity of 5,000 m³/day expandable to 7,500 m³/day. The current construction completion date is January 11, 2020 to be followed by a two-year contractor provided operation and maintenance period. A 70-day extension of time for COVID related issues revised the completion date to March 22, 2021, however the Contractor’s work stoppage claim was not approved by MWI/WAJ. Current progress based on invoices to date are approximately 74 percent complete. The committee reviewing seven variation orders

completed their report: The committee also was generally agreeable to a revision to the stability wall which would not require piles and would require a change of location to one of the internal roadways. The work is ongoing regarding commissioning and substantial completion. The O&M period begins prior to substantial completion but runs for 2 years following substantial completion.

- Expansion of North Aqaba Wastewater Treatment Plant-Tender No. 26/T/2016

Contractor	Commencement Date	Contract Completion Dates	Funding
Arab Towers Contracting Company (ATCCO)	July 19, 2017	Original 550 days January 18, 2019 New Expansion November 2, 2020 (1205 days) VO 2 +1035 days Rehabilitation February 2, 2021 (1295 days) PV System (126 days) June 8, 2021	Construction Aqaba Water and USAID FARA CMS USAID

The current expansion of North Aqaba WWTP involves the decommissioning of the existing natural ponds plant (while keeping the mechanical plant in operation) and the design and construction of a new expansion plant for a capacity of average daily flow of 28,000m³/day. As the capacity of the existing mechanical plant is 12,000m³/day, the total plant capacity (existing and new expansion) will reach 40,000m³/day.

The Aqaba Water Company (AW), because of problems in financing the project (issue of delayed payments) asked for USAID assistance in funding the remaining works of the project. A Fixed Amount Reimbursement Agreement (FARA) mechanism was used for this funding and was agreed to on January 16, 2020 and amended on June 17, 2020 and again on April 6, 2021. The overall work progress is reported to be 93 percent. Construction completion of the new expansion was to be on November 2, 2020 and for the rehabilitation works on February 2, 2021. An extension approved by AW of 126 days brings contract completion for all work to June 8, 2021.

A five-year contractor-provided operation and maintenance period will commence after the construction and commissioning period. A meeting was held on February 22, 2021 with the Minister, MWI/WAJ, AWC, ATCCO, USAID and CDM Smith to discuss the overall project status and completion dates for the construction works and start-up of O&M activities. A MWI/WAJ committee then visited the WWTP site to understand issues related to AW provided lab equipment and rolling stock, and the plans for rehabilitating the existing WWTP. The solar panel installation and the digester gas generation commissioning was proceeding following the meeting. During the reporting period, Aqaba Water provided direction that the renewable energy sources will be used on-site with no connection to the grid and CDM Smith requested confirmation from EDCO regarding ATCCO's planned connections within the WWTP. Additionally, the plans for the existing WWTP will need to be addressed with either continued operation or mothballing the facility until wastewater flow require its operation. The transition from construction to operation will continue to be the focal point of site efforts in the coming quarter.

COVID-19 Impact: The CHP manufacturer's representatives have been unable to travel to Jordan for the commissioning of their equipment so virtual meetings are being held with North Aqaba staff. Refer also to Annex VIII-Management and Administrative Issues.

(g) Sakan Kareem Housing Project:

- On July 16, 2020, USAID directed CDM Smith to proceed with the Sakan Kareem Housing Project. The project includes two housing locations in Amman and one in Irbid.
- Technical Memorandum on the wastewater connection options was submitted on September 2, 2020. A presentation meeting with USAID and MWI/WAJ was held on September 21, 2020 to discuss the options presented in the TM with the objective of agreement on the preferred/selected options to move forward in the BODR. An updated TM including high level comparison cost estimates was submitted to MWI/WAJ on November 4, 2020.
- MWI/WAJ verbally approved the recommended options for Abu Alanda and Bader housing projects and agreed that we can proceed with the survey work for the selected options.
- Land ownership information for the proposed Abu Alanda PS site and the pipeline routes is being collected to inform MWI/WAJ if land acquisition is needed.
- MWI/WAJ formed a committee to provide oversight for this activity.
- A coordination meeting with Bader Housing project local committee was held on October 1, 2020 to discuss the project and to confirm the local committee acceptance of the project, it was concluded that the local committee of Bader Housing Project and the surrounding neighbors accept the project and confirm understanding of the project benefits.
- A site visit to Eman Housing Project was conducted on October 13, 2020. During the site visit, we contacted the municipality, and were informed that they are willing to open a service connecting road parallel to the Hijaz Railway for the benefit of the surrounding community.
- The survey work for Bader and Abu Alanda Housing projects is completed. Following a meeting with MWI/WAJ and the Jeeza municipality December 27, 2020, the Princess Eman Housing Project proposed service road parallel to the Hijaz Railway will not be considered further.
- The work is ongoing on the BODR for Abu Alanda and Bader housing projects.
- We received MWI/WAJ coordination letters with different entities such as the MoE, municipalities, MoPWH and electrical companies.
- Our subconsultant CCG started the coordination with the MoE to specify if EIA is needed for Sakan Kareem Housing Project Sanitary Services and type of the EIA for this project. The project descriptions for the three Sakan Kareem housing projects were submitted to MoE.
- On February 9, 2021, MWI/WAJ provided direction that the preliminary design work for Abu Alanda and Bader Housing Projects can be continued for the selected and approved connection option. While, to put Princess Eman Housing Project on hold as MWI/WAJ is currently studying the gravity connection option that needs land acquisition.
- On April 05, 2021, MWI/WAJ requested from the project to collect the land deeds, land drawings and the town plans for the gravity option of Princess Eman Housing Project, so the MWI/WAJ will study the associated cost of the land acquisition before taking final decision about the selected wastewater connection option.

- A meeting with the MoE was held on March 30, 2021 to provide the MoE with more technical information about the project facilities, in order to facilitate their final decision regarding the level of ESIA needed for Sakan Kareem Housing Projects Sanitary Services project. MoE in their letter provided “No objection” to proceed with the project activities without the need for ESIA studies.

(h) Jordan-Iraq Power Interconnection Activity

- USAID approved the Jordan-Iraq Power Interconnection Activity on August 12, 2020. The activity includes four tender documents for switchgear, transformers, overhead transmission lines and civil works. The USAID FARA contracting mechanism will be used to reimburse NEPCO for completed milestones.
- A kick-off meeting with NEPCO, CCG and USAID was held on August 26, 2020 to start the project and collect all NEPCO’s requirements. An internal kick-off meeting was held on September 3, 2020
- Meeting with USAID and NEPCO was held on September 17, 2020 to discuss the requirements and timing for the ESIA.
- During the week of September 26, 2020, the Government of Jordan and the Government of Iraq signed the agreement that commenced the 26-month period to tender, implement and construct the project.
- At a meeting with NEPCO on September 30, 2020 draft tender documents prepared by NEPCO for the four contracts were received. All comments were discussed and addressed with NEPCO during the reporting period. The ESIA Draft Scoping and TORs report was submitted to NEPCO, USAID and MoE on January 5, 2021. Comments from USAID and NEPCO were received on January 13, 2021 and the report was finalized and translated and set and approved by MoE. The milestone development required by the FARA agreement have been discussed were nearing completion at the end of the reporting period.
- A fifth contract for telecommunications was added during the reporting period and quotations from ABB Switzerland and GE were received for this work.
- A coordination meeting with NEPCO and USAID was held on December 7, 2020.

(i) Construction Management Services of Amman Improvement Phase III (Package II – Misc. water networks in Amman – Temporary Work).

- Kick off meeting held on Sunday January 10, 2021 same date of the contractor NTP.
- A handing-over meeting with the new USAID awarded project Water Engineering Services (WES) was held on February 4, 2021. The MOM handover to the WES team, Sajdi CEC, were submitted to USAID on February 8, 2021. Activity closed

(j). CMS for As Samra WWTP second expansion is expected to commence following completion of the As Samra second expansion negotiations.

(k) As Samra negotiations due diligence resulted in a report by SWECO sent on March 7, 2021 and included a presentation to H. E. the Minister, WAJ Secretary General and USAID on March 21, 2021 of the report findings. Additional discussions with MWI/WAJ are ongoing regarding the strategic plan for As Samra wastewater catchments and treatment.

b. Reporting Data and DevResults

The performance indicators listed in Annex I are included on DevResults. Geographic locator information included in DevResults and those deliverables submitted to Development Experience Clearinghouse (DEC) to date are listed in Annexes II and V, respectively.

c. Implementation Challenges and Modifications Made/Issues Addressed during the Reporting Period

The implementation challenges and modifications, both actual and potential, were discussed under Paragraph 3.a. and include:

- Task 1 AAWDCP development of the preliminary design has required close coordination with the ESIA consultant to provide planned technical approaches to desalination, pipeline routing, the provision of reports and technical memorandums and to understand the environmental constraints. Challenges have included revisions to the original planned AAWDCP scope of work.
- Task 2-Construction supervision – Shedeyyeh–Hasa Water Project Phase I: With the groundwater quality requiring appropriate bench scale testing to determine the best practical treatment option, a laboratory was located in the US that can perform the required tests.
- Task 4-Expansion of the Madaba WWTP. The approval by MWI/WAJ of their preferred treatment alternative has allowed the design phase to commence.
- Task 5 Ramtha WWTP expansion design-build operate technical employer requirements and contractual documents were discussed and submitted to MWI/WAJ, YWC and AFD review and acceptance. The previous Minister expressed concern with implementing CHP systems which had been approved by AFD and MWI/WAJ. MWI/WAJ is currently reviewing to determine if CHP should be included.
- Task 6 Dair Alla water and wastewater improvements: Since the one completed tender for the well assessment was not accepted by GTD, the challenge was to retender as quickly as possible which was done and two interested contractors attended the site visit and pre-tender meeting.
- Task 7 Bani Kenanah: The challenge will be to arrange for meetings with responsible MWI/WAJ staff that reviewed the feasibility study evaluation report so that decisions are made for the development of designs especially as they relate to water improvements.
- Task 8- Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance-Following the sampling procedures and testing/analysis of the wastewater samples improvements to procedures (especially within the WAJ central lab) were achieved.
- Task 9- Zara Ma'in pump replacement: The challenge is to continue to work closely with the contractor and the pump manufacturer to deliver the pumps in as timely a fashion as possible. Meetings are held with all parties to address the planned delivery schedule.

- Task 9- As Samra WWTP second expansion: The challenge will be to work with MWI/WAJ to determine the strategic plan for wastewater catchments to As Samra.
- Task 9 – Sakan Kareem Housing Project Sanitary Services: Decision about Princess Eman Housing Project connection option is required to be taken by the MWI/WAJ, considering the challenges that are associated with the needed land acquisition along the gravity wastewater pipeline route in addition to the expected obstacles that might exist along the gravity wastewater pipeline route.
- Refer to Annex VIII-Management and Administrative Issues.

4. COLLABORATING AND/OR KNOWLEDGE SHARING

a. Collaboration and/or Knowledge Sharing with Other USAID Activities and Partner Entities in Host Government and Other Donor Agencies

Meetings, collaboration, and site visits conducted during the quarter are included in Annex VII. In summary, the following significant collaboration and knowledge sharing took place:

- Task 1-AAWDCP: Collaboration with the ESIA consultant (WYG), MWI/WAJ, USAID, and EIB have been arranged on a bi-weekly basis to inform all parties on the continuing technical and environmental efforts on the project and have allowed for both the development of the BOT documents and the ESIA to proceed on a parallel track.
- Task 3-Zai water supply system discussions with MWI/WAJ, the consultant Dorsch about the KfW-funded energy-efficiency study and the impact to proposed improvements in the feasibility options report and the JICA-funded program.
- Task 5-Ramtha WWTP expansion: Collaboration with AFD, USAID and MWI/WAJ on the tender documents to confirm best procedures for developing the DBO documents.
- Task 6-Dair Alla water and wastewater improvements: The collaboration with GTD, EIB and MWI/WAJ allowed for the retendering of the well assessment to proceed smoothly and in a timely manner.
- Task 8-Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance: The Workshop “COVID-19 Wastewater Surveillance in Jordan: From Capacity Building to Implementation” attended by 40 plus stakeholders from academia, donor agencies, and governmental agencies provided a useful forum for sharing the experiences and findings from the program under Task 8.
- Task 9-Sakan Kareem: Coordination with MoE was essential in determining the MoE’s requirements for an ESIA. MoE’s determination was that an ESIA was not required as long as appropriate environmental requirements were included in the tender documents.
- Task 9-Jordan-Iraq Power Interconnection Activity: Coordination with NEPCO and USAID was necessary to the review of NEPCO’s proposed costs and milestone alignment.

5. ASSESSMENTS, EVALUATIONS, AND LESSONS LEARNED

a. List Major Assessments, Internal Evaluations, and Lessons Learned and Actions and Way Forward

- Task 1- AAWDCP: - The scoping workshop for the AAWDCP was held on March 1, 2021 in Aqaba. The workshop presented both the technical and environmental considerations for the AAWDCP. The meeting was attended by many stakeholders that raised questions regarding the project and the way forward will be to address the issues and concerns raised during the workshop both in the development of the environmental assessment and in the technical requirements.
- Task 3- Zai WTP facilities: - The way forward will be to determine an effective way to design and implement the combination of proposed improvements (feasibility options report, Dorsch KfW-funded energy efficiency study, and JICA-funded program) and determine if construction funding is available.
- Task 4- Expansion of the Madaba WWTP: - The way forward is to continue the design development phase based on the receipt of MWI/WAJ approval of the selected treatment alternative and to submit the feasibility study report as final.
- Task 5- Expansion of the Ramtha WWTP: - The way forward is to finalize the employer requirements for the DBO tender documents and is to receive AFD and MWI/WAJ approval of the employer technical requirements for the DBO tender documents and the tender documents that outline the tendering procedures and the conditions of contract.
- Task 6-Dair Alla and Al Karamah water and wastewater improvements: The tender documents of the well assessments were re-advertised with the acceptance of EIB, MWI/WAJ and the Government Tenders Department (GTD). The way forward is to receive and evaluate the tenders from interested tenderers by GTD and to move the assessment into implementation so that final plans for the water networks and WTPs can be decided based on the results of the well assessment.
- Task 7-Bani Kenanah water and wastewater improvements: The way forward is to meet with MWI/WAJ, Yarmouk and USAID to receive comments on and discuss the recommendations of the submitted feasibility study evaluation report to determine the best way forward to implement the design development stage and to finalize decisions regarding the well assessment activity.
- Task 8-Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance: With the completion of the capacity building for the lab analysis staff on the testing procedures and the workshop, the way forward is to submit the final report.
- Task 9-Negotiation support to MWI/WAJ for the second expansion of the As Samra WWTP: The way forward will be to determine MWI/WAJ strategic plans for the As Samra WWTP second expansion by means of due diligence responses to their questions. Based on those determinations, either negotiations will re-start with USAID, MWI/WAJ, SPC or selection of a satellite location for a WWTP will be implemented.
- Task 9-Tafileh WWTP and North Aqaba WWTP. The way forward for Tafileh will be to implement the stability wall as agreed and to expedite the remaining construction works in preparation for commissioning and substantial completion. The way forward with North Aqaba is to prepare for the

transition from construction into O&M which may include mothballing the existing WWTP, completing the solar panel installation, and commissioning of the gas generation facilities.

6. PLANNED ACTIVITIES FOR NEXT QUARTER

The following is an overview of the activities either common to some or all tasks or required to perform the overall contract work that is expected to be performed during the next quarter. Engineering activities (specific to each of the nine tasks) to be performed during the reporting period are discussed under each task heading.

a. Proposed Tasks and Activities for the Next Quarter

(a) Mobilization

Staff mobilization will continue during the project's next quarter to meet the ongoing activities and task requirements. The secondment of MWI/WAJ, Miyahuna, and YWC staff into the project team is on hold because of the COVID-19 work-at-home restrictions. Secondment will resume once full office openings are allowed.

(b) Data Collection

Data collection will be an ongoing activity for those tasks authorized and expected to commence in the next quarter.

(c) Meetings, Collaboration, and Site Visits

The following is planned for the next period however because of COVID-19 face-to-face meetings and site visits are expected to be curtailed. Teleconferencing will again be the plan moving forward into the next reporting period. Meetings, collaboration, and site visits to project locations will continue to further define scopes, coordinate our work with others, and ensure our performance aligns with USAID and our local client's expectations. CDM Smith expects to attend meetings with USAID, MWI/WAJ, WYG and donor agencies (JICA, AFD, EIB, and KfW) on the priority projects planned for implementation.

(d) Monitoring, Evaluation and Learning Plan

Annex I A will continue to be updated to track the performance indicators.

(e) Task 1-Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP).

The evaluation of the completed prequalification questionnaires received on September 30, 2020 and for those experiencing difficulty with the electronic connection by October 3, 2020 will commence once the evaluation committee has been established and approved. CDM Smith will continue to coordinate with USAID, the ESIA consultant, EIB, MWI/WAJ, DLS, and Aqaba agencies regarding land ownership, siting of facilities, technical and environmental issues, rights-of-way (ROWs) along the pipeline route, and to define studies and work efforts planned for under Task 1. The submitted draft Instructions to Bidders and Project Agreement will require discussion and coordination with MWI/WAJ and potential donors. The submission of all RFP documents are expected at the end of May 2021 for final reviews by MWI/WAJ and USAID.

(f) **Task 2**–Construction Supervision – Shedeyyeh–Hasa Water Project Phase I

CDM Smith will continue to provide CMS for Phase IA, which includes the drilling of seven wells. The drilling of the remaining seventh well and installation of the screen and casings will be performed at Well 4N. Well pumping tests and water quality sampling and testing for the three remaining wells will be completed once the new well pump arrives in Jordan which is expected in late May 2021.

(g) **Task 3**–Expansion of Zai Water Treatment Plant Project

The feasibility options report is expected to be approved by MWI/WAJ, Miyahuna, and USAID. Continued coordination will occur with the KfW-funded energy-efficiency study and the JICA-funded program to identify an effective way to design and implement the combined proposed improvements and determine if construction funding is available.

(h) **Tasks 4 and 5**–Expansion of Madaba and Ramtha Wastewater Treatment Plants

The feasibility study for the expansion of the Madaba WWTP will be finalized based on comments and decisions for the selected treatment options and submitted for approval by MWI/WAJ, USAID, and Miyahuna. The design development will continue. Funding for the construction is still to be determined.

The evaluation of the completed prequalification questionnaire for the Ramtha WWTP expansion will receive the approval of AFD. The DBO tender documents and the technical employer’s requirements for the Ramtha WWTP will be discussed with USAID, AFD, and MWI/WAJ.

(i) **Task 6** – Water and Wastewater Project for Dair Alla and Al Karamah in Balqa Governorate

The designs will continue with development of tender documents packaged to address priority locations within Dair Alla and with estimated construction costs suitable for both international and local tendering. The water network final BoDR will be submitted. The receipt of tenders for the Dair Alla wells assessment are expected on April 19, 2021 and the tender evaluation will commence. The BoDR and designs for the wastewater networks layouts and profiles and house connections will continue, to address the new WWTP location and the use of the Zarqa River wadi for the networks. The relocation of the Dair Alla WWTP to the Tal Mantah septage facility site will be more fully developed following review and comments on the Technical Memorandum Dair Alla Design Definition Memorandum which was submitted to USAID and MWI/WAJ on December 17, 2020 to define all changes both on the WWTP and networks that are expected as a result of the WWTP relocation. Comments on the submitted prequalification documents for the water improvements are expected from MWI/WAJ and EIB to finalize the questionnaires.

(j) **Task 7**–Water and Wastewater Project for Bani Kenanah in Irbid Governorate

The evaluation report of the EIB-funded feasibility study will be discussed with MWI/WAJ and USAID following their reviews and to the extent possible with EIB. The purpose is to understand the agreed upon approach to moving forward with the designs.

(k) **Task 8**–Technical Assistance to Water Utilities

The Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance in Amman, Jordan will be completed, and the final report will be submitted to MWI/WAJ and USAID.

(l) **Task 9**-Additional Architect and Engineer (A&E) Services

Negotiations to support MWI/WAJ for the Phase III (second) expansion of the As Samra WWTP. The

re-start of negotiations to achieve commercial and financial close is dependent upon current strategic plans of MWI/WAJ.

Construction management services under USAID Jordan Water Infrastructure for the Tafileh WWTP will finalize the plan for the stability wall. North Aqaba WWTP the solar panel installation will continue, and CHP commissioning will continue on-site virtually with the German manufacturer. The status for the rehabilitation of the existing WWTP and the transition from construction to operation and maintenance is expected to be resolved. The scope of services under Water Infrastructure Project Phase II which commenced on May 1, 2020 will be ongoing and the first batch of five pumps will arrive in Jordan and factory acceptance tests for the remaining pumps will be ongoing. The practical treatment options to move forward into Phase IB of the Hasa-Shedeyyeh wells will require decisions based on the groundwater quality as provided by the WAJ Central Lab for the first four wells. A proposal was submitted for USAID consideration to perform bench-scale testing of the groundwater to determine the acceptability of proposed treatment options.

The Sakan Kareem Housing Project technical memorandum provided optional wastewater network routing for each of the three housing projects. The work will continue on the preparation of the BODR for Abu Alanda and Bader Housing project based on the MWI/WAJ approved recommended option. And it is expected that MWI/WAJ will provide their formal decision on Princess Eman Housing Project wastewater connection option so that survey and design can proceed. With the completion of the reviews of NEPCO's draft tender documents on the Jordan Iraq Power Interconnection activity tenders for the switchgear and transformers are expected. The milestone development will be completed while the ESIA work will be ongoing. The CMS for the Amman Water Improvements was completed on February 4, 2021. It is not expected that the CMS for the As Samra WWTP second expansion will commence during the next period while discussions will continue on the As Samra WWTP negotiations due diligence. Three new activities are expected to commence: The Aqaba Amman Conveyance (AAC) Energy Recovery Component is expected to commence pending approval of the budget and 937 waiver for the proposed subcontractor Dorsch. The Jordan Iraq Power Transmission Activity-Additional Services related to precontract reviews for the switchgear tender which includes the static var compensator is expected to commence pending approval of the budget. The preparation of the prequalification and tender documents for the Zara Main Bypass Facility is expected to commence following the signing of a project implementation letter dated March 11, 2021 between USAID and MWI/WAJ.

7. BRANDING COMMUNICATIONS AND DISSEMINATION

a. Key Communication Activities - Specific Activities that Reflect Branding Awareness for USAID

Weekly briefing updates are submitted to USAID to advise of key activities conducted during the previous week. Monthly achievements are submitted to the USAID Implementing Partners newsletter to inform partners on project updates. New factsheets for; USAID Jordan Water Infrastructure, North Aqaba Wastewater Treatment Plant, Tafileh Wastewater Treatment Plant, and Zara Ma'in Water Supply System were developed as per the new template for activities of noteworthy achievements, currently under USAID review. Coordination with the Ministry of Water and Irrigation is ongoing for the development of the e-library for Task 1 – The Aqaba Amman Water Desalination and Conveyance Project as follows:

- E-library application: Proceed with the identification of an application developer, in accordance to the previously identified technical requirements. Consequently, a request for price quotations were sent to 10 companies, 4 of which responded back. CDM Smith completed the proposals' review and shared the technical specifications and selection criteria with MWI and AAWDCP for confirmation.
- Hosting and data storage: It was agreed with MWI IT personnel and AAWDCP to host the application and data storage at the Ministry of Digital Economy and Entrepreneurship (MODEE) cloud. MWI corresponded with MODEE regarding technical, hosting and licensing requirements in order to be incorporated with the contracting documents for approval. MODEE response provided their cost for hosting the e-Library on the government cloud computing platform.
- Based on the request of MWI and approval of USAID, a short video will be produced to be included on the interface of the e-library. The layout and plan of the video is currently with USAID for review.

b. Branding

Ensured the proper branding for equipment handed over to the MWI/WAJ under Task 8. The virtual workshop on “COVID-19 Wastewater Surveillance in Jordan: From Capacity Building to Implementation” was properly branded with the USAID logo on e-invitation cards and the presentation.

c. Media Exposure

COVID-19 Wastewater Surveillance in Jordan received media exposure as per the following table:

	Agency	Type	Language	Date
1	Ammon News	Online	English	March 25, 2021
2	MENA FN	Online	English	March 25, 2021
3	Nayrouz	Online	English	March 25, 2021
4	Al Rai	Online	Arabic	March 25, 2021
5	Petra News Agency	Online	Arabic	March 25, 2021
6	Ammon News	Online	Arabic	March 25, 2021
7	Addustour	Online	Arabic	March 26, 2021
8	Khaberni	Online	Arabic	March 25, 2021
9	Al Wakaai	Online	Arabic	March 25, 2021
10	Al Anbat News	Online	Arabic	March 25, 2021
11	Johina News	Online	Arabic	March 25, 2021
12	Al Sabeel News	Online	Arabic	March 25, 2021
13	Assawsana News	Online	Arabic	March 25, 2021
14	Maqar News	Online	Arabic	March 25, 2021
15	Nabaa	Online	Arabic	March 25, 2021
16	Aghwar News	Online	Arabic	March 25, 2021
17	Arabi Post	Online	Arabic	March 25, 2021
18	Amman Voice	Online	Arabic	March 25, 2021
19	MWI facebook	Social Media	Arabic - English	March 25, 2021
20	Water for life facebook page	Social Media	Arabic - English	March 25, 2021
21	JVA Facebook	Social Media	Arabic - English	March 25, 2021
22	Al Rai Facebook	Social Media	Arabic	March 25, 2021
23	Al Rai Twitter	Social Media	Arabic	March 25, 2021

8. ENVIRONMENTAL STATUS REPORT

The Programmatic Initial Environmental Examination (P-IEE) dated August 21, 2017 was developed in accordance with Title 22, Code of Federal Regulations, Part 216 (22CFR216). The purpose was to provide a preliminary review of the reasonably foreseeable effects on the environment as well as recommended threshold decisions. Additionally, the document provides for improving the quality of the social sector through more accountable and sustainable management of water and natural resources consistent with the Country Development Cooperation Strategy. Amendment 1 to the P-IEE was issued December 9, 2018.

The Environmental and Social Impact Assessment under Task 5 for the expansion of the Ramtha WWTP commenced with an initial TOR and a scoping session report and was followed by the comprehensive ESIA. All reports were reviewed by USAID, AFD and MWI/WAJ before submittal for MoE approvals. The approvals from MoE were received on March 12, 2020 for the TOR and a scoping session report and on July 28, 2020 for the ESIA. Since AFD will be financing construction, the ESIA program followed the guidelines of the AFD.

The environmental assessment process for Task 1 AAWDCP is being prepared by another consultant with EIB funding. Regular coordination meetings are being held with the ESIA consultant, EIB, USAID, MWI/WAJ, and the CDM Smith team.

The terms of reference (TOR) for the preliminary environmental and social impact assessment for Task 6 Dair Alla and Al Karamah Water Systems was prepared and submitted to USAID and MWI/WAJ on November 23, 2020. USAID comments of December 2, 2020 were responded to on December 10, 2020. Additional comments from USAID received on December 10, 2020 were addressed in the final TOR submission. The Arabic version of the TOR was submitted to MoE on December 2, 2020 and comments from MoE received on December 17, 2020 were addressed. The MoE identified the Dair Alla and Al Karamah water system activity as Category B and those guidelines are being used in the assessment process. Plans are in process for the ESIA's for the Dair Alla wastewater system and the Madaba WWTP expansion with our subcontractor.

An Environmental Mitigation and Monitoring Plan (EMMP) was prepared for Task 8- Planning and Capacity Building Related to COVID-19 Monitoring Using Wastewater Surveillance. Final comments received from USAID's review of the EMMP were addressed and USAID clearance and approval were received October 6, 2020.

An EMMP is under preparation for the Task 2-Shedeyeh-Hasa well construction work as it specifically relates to the well pump test procedures.

The environmental assessment process for Task 9-Sakan Kareem Housing Project based on a letter from MoE provided "No objection" and to proceed with the project activities without the need for ESIA studies. The environmental assessment process for the Jordan-Iraq Power Interconnection activity is ongoing and the TOR and scoping report has been accepted. Travel to the project area in Risha continues to be restricted and approvals have not been forthcoming. NEPCO received letters of instructions from MoE regarding the procedure for developing the environmental assessments.

9. SUSTAINABILITY AND EXIT STRATEGY

Regarding sustainability, seconded staff from MWI/WAJ and Miyahuna commenced their assignments working side-by-side with CDM Smith project staff. The plan for additional seconded staff from Miyahuna and YWC to commence their assignments in the coming months has been delayed until the COVID-19 office restrictions are lifted. The objective of secondment is to receive on-the-job training, and specific training on modeling, environmental assessment development, tender document preparation, and site visits with the goal of improving the skills of the seconded personnel,

Currently in Jordan large portions of the available water resources that could be directed for potable use are being diverted for agricultural irrigation. The plan to improve the treated effluent from WWTP operations to meet the required Jordanian standard will be an effective and suitable means for reusing the treated wastewater effluent for agricultural irrigation and provide an environmental alternative for saving potable water sources for potable use.

The MWI/WAJ are expressing a strong interest to improve sustainability and include O&M requirements as a part of all construction contracts to cover a period sufficient for the contractor to operate and maintain the facilities and to train assigned MWI/WAJ operating staff until they have the necessary skills to assume facility O&M responsibilities. The O&M could be accomplished in the long-term with a private partnership approach.

10.ANNEXES

Annex I A Indicator Performance Tracking Table, Project Tasks, Start Dates and New PIRS

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
DO3 DO3d: Number of people gaining access to safely managed sanitation services as a result of United States Government (USG) assistance (F HL.8.2.3) <i>(Enter target only in year of expected completion of construction; Task 9 TBD)</i>	T4- Expansion of the Madaba Wastewater Treatment Plant	TBD	Total	Total	Total	Total	Total	Total 150,500	Geographic locations: Madaba Governorate 100% completion is expected in 2023.
			Female	Female	Female	Female	Female	Female 70,700	
			Male	Male	Male	Male	Male	Male 79,800	
	T5- Expansion of the Ramtha Wastewater Treatment Plan	TBD	Total	Total	Total	Total	Total	Total 215,400	Geographic locations: Ramtha District in Irbid Governorate AFD is expected to finance construction 100% completion is expected in 2023.
			Female	Female	Female	Female	Female	Female 101,300	
			Male	Male	Male	Male	Male	Male 114,100	
	T6- Water and Wastewater Project for Dair Alla and Al Karamah	TBD	Total	Total	Total	Total	Total	Total 59,200	Geographic locations: Dair Alla and Al Karamah in the Jordan valley EIB is expected to finance construction 100% completion is expected in 2023.
			Female	Female	Female	Female	Female	Female 27,800	
			Male	Male	Male	Male	Male	Male 31,400	
	T7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate	TBD	Total	Total	Total	Total	Total	Total	Geographic locations: Bani Kenanah District in Irbid Governorate T7- commenced in December 2019
			Female	Female	Female	Female	Female	Female	
			Male	Male	Male	Male	Male	Male	
T9- Expansion of North Aqaba Wastewater Treatment Plant		Total	Total	Total	Total 150,000	Total	Total	Geographic location: Aqaba governorate Transferred from WSIP on March 23, 2020	
		Female	Female	Female	Female 70,650	Female	Female		
		Male	Male	Male	Male 79,250	Male	Male		

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS	
	T9- Rehabilitation of Tafileh Wastewater Treatment Plant				Total	Total 67,788	Total	Total	Geographic location: Tafileh Transferred from WSIP on March 23, 2020	
				Female	Female 31,928	Female	Female			
				Male	Male 35,860	Male	Male			
	T9- Sakan Kareem Wastewater System				Total	Total	Total	Total 24,321	Geographic location: Amman, Abu Alanda Commenced on August 12, 2020	
				Female	Female	Female	Female	Female 11,455		
				Male	Male	Male	Male	Male 12,865		
						Total	Total	Total	Total 8,170	Geographic location: Amman, Princess Eman Commenced on August 12, 2020
						Female	Female	Female	Female 3,848	
						Male	Male	Male	Male 4,322	
					Total	Total	Total	Total 5,594	Geographic location: Irbid, Bader Commenced on August 12, 2020	
					Female	Female	Female	Female 2,635		
					Male	Male	Male	Male 2,959		
DO3 DO3e: Number of people receiving improved service quality from an existing basic or safely managed drinking water service as a result of USG assistance (HL.8.1-3)	T1- Aqaba-Amman Water Desalination and Conveyance Project (AAWDGP)	TBD	Total	Total	Total 0	Total	Total	Total	Geographic locations: Aqaba to Amman Governorates USAID exercised its option in Modification 03 commenced Task 1. Statement of Work (SOW) approved by MWI/WAJ	
			Female	Female	Female	Female	Female	Female		
			Male	Male	Male	Male	Male	Male		
	T2- Construction Supervision for Shedeyeh-Hasa Water Project, Phase I	TBD	Total	Total	Total 0	Total	Total	Total		Geographic locations: Central Jordan along the Amman-Aqaba Highway 100% completion is expected in 2025.
			Female	Female	Female	Female	Female	Female		
			Male	Male	Male	Male	Male	Male		

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
<i>(Enter target only in year of expected completion of construction; Task 9 TBD)</i>	T3- Expansion of the Zai Water Treatment Plant Project	TBD	Total	Total	Total 0	Total	Total	Total 1,600,000	Geographic locations: Dair Alla in the Jordan valley (Balqa Governorate) to Amman Governorate 100% completion is expected in 2023 if the expansion were to proceed.
			Female	Female	Female	Female	Female 750,000		
			Male	Male	Male	Male	Male 850,000		
	T6- Water and Wastewater Project for Dair Alla and Al Karamah	TBD	Total	Total	Total 0	Total		Total 88,600	Geographic locations: Dair Alla and Al Karamah in the Jordan valley EIB is expected to finance construction 100% completion is expected in 2023.
			Female	Female	Female	Female	Female 41,600		
			Male	Male	Male	Male	Male 47,000		
	T7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate	TBD	Total	Total	Total 0	Total		Total 155,000	Geographic locations: Bani Kenanah District in Irbid Governorate T7- commenced in December 2019
			Female	Female	Female	Female	Female 73,005		
			Male	Male	Male	Male	Male 81,995		
	T9- Zara-Ma'in Water Supply Project					Total 1,301,370	Total 260,274	Total	Geographic location: existing Zara Ma'in WTP. The task covers the entire Zara Ma'in water supply system Transferred from WIPII on May 1, 2020.
						Female 612,945	Female 122,589	Female	
						Male 688,425	Male 137,685	Male	
IR 3.3 IR3.3c: Cubic meters of water provided or saved as a result of USG assistance <i>(Task 9 TBD)</i>	T1- Aqaba-Amman Water Desalination and Conveyance Project (AAWDPC)	0 TBD			0			0	Geographic locations: Aqaba to Amman Governorates USAID exercised its option in Modification 03 commenced Task 1. SOW approved by MWI/WAJ
	T2- Construction Supervision for	0 TBD			0			10 MCM/yr	Geographic locations: Central Jordan along the Amman-Aqaba Highway

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
	Shedeyyeh-Hasa Water Project, Phase I								100% completion is expected in 2025.
	T3- Expansion of the Zai Water Treatment Plant Project	0 TBD			0			70 MCM/yr	Geographic locations: Dair Alla in the Jordan valley (Balqa Governorate) to Amman Governorate 100% completion is expected in 2023. The project is on hold.
	T4- Expansion of the Madaba Wastewater Treatment Plant	0 TBD			0			3.5 MCM/yr from treated WW effluent	Geographic locations: Madaba Governorate 100% completion is expected in 2023.
	T5- Expansion of the Ramtha Wastewater Treatment Plan	0 TBD			0			3.5 MCM/yr from treated WW effluent	Geographic locations: Ramtha District in Irbid Governorate AFD is expected to finance construction 100% completion is expected in 2023.
	T6- Water and Wastewater Project for Dair Alla and Al Karamah	0 TBD			0			3 MCM/yr from improved water facilities	Geographic locations: Dair Alla in the Jordan valley (Balqa Governorate) to Amman Governorate EIB is expected to finance construction 100% completion is expected in 2023.
	T7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate	0 TBD			0			5.7 MCM/yr	Geographic locations: Bani Kenanah District in Irbid Governorate T7- commenced in December 2019
						38 MCM/yr			Geographic location: existing Zara Ma'in WTP. The task

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS	
	T9- Zara-Ma'in Water Supply Project								covers the entire Zara Ma'in water supply system Transferred from WIPII on May 1, 2020.	
Sub-IR 3.3.2 Sub Sub-IR 3.3.2.1 Sub Sub-IR3.3.2.1a: Number of people educated on tools, approaches, and/or methods for water security, integrated water resource management, and/or water source protection as a result of USG assistance (F HL.8.3-1)	Training courses ArcGIS 1 ArcGIS 2 Building GeoDatabase Geometric Network for Utilities Editing Data ArcGIS Desktop Modeling Software Bentley Other - TBD	0	Total 10	Total 13	Total 0	Total 35		Total	Facilities of participants: Location provided by the software vendor	
		TBD	Female 0	Female 11- Sewer/Water Gems	Female	Female		Female		
			Male 0	Male 2- Sewer/Water Gems	Male	Male		Male		
		Seconded staff T1 – 1/Aqaba T3 – 2/Miyahuna T7 – 3/Yarmouk, 1/WAJ <i>Staff assigned to multiple tasks:</i> Tasks 3, 4, 5, 6, 7 – 4/WAJ Other - TBD	0	Total	Total	Total	Total		Total	Secondment is on hold due to COVID-19 pandemic
					6	10				
			TBD	Female	Female 3	Female TBD	Female		Female	
				Male	Male 3	Male TBD	Male		Male	
		Capacity building for seconded staff and subcontractors – general relevant topics						Total 9		Online one- hour sessions (1 from MWI, 2 from WAJ, 5 from CC, 1 from AJ)
								Female 7		
								Male 2		
	Capacity Building Task 8						Total 10		8 laboratory technicians 1 monitoring 1 Field personnel	
							Female 8			
							Male 2			

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
IR 3.3.3 IR 3.3.3.a Value of new funding mobilized to the water and sanitation sectors as a result of USG assistance (F.HL.8.4-1)	T3- Expansion of the Zai Water Treatment Plant Project	0	0	0	JICA				Donor
	T5- Expansion of the Ramtha Wastewater Treatment Plan	0	0		AFD				Donor
	T6- Water and Wastewater Project for Dair Alla and Al Karamah	0	0	EIB					Donor
	T7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate	0	TBD		TBD				
	T9- Additional A&E Services-As Samra WWTP Second Expansion	0	0	0	0				Private
IR 3.3.3 IR3.3.3.b: Percent of construction completion of water and wastewater infrastructure systems by facility	T2- Construction Supervision for Drilling Contract Shedeyyeh-Hasa Water Project, Phase IA	0 2019	TBD	70%	85%	100%	87%		Geographic locations: Central Jordan along the Amman-Aqaba Highway Start February 7, 2019. Expected construction completion July 2021
	T2- Construction Supervision for Shedeyyeh-Hasa Water Project, Phase IB	0 2018	TBD		TBD	TBD		TBD	Geographic locations: Central Jordan along the Amman-Aqaba Highway Expected construction completion 2023
	T4- Expansion of the Madaba Wastewater Treatment Plant	0 2021			0	TBD		TBD	Geographic locations: Madaba Governorate Expected construction start 2023
	T5- Expansion of the Ramtha Wastewater Treatment Plan	0 2021			0	TBD		TBD	Geographic locations: Ramtha District in Irbid Governorate Expected construction start 2023 AFD is expected to finance construction

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
	T9 - Additional A&E Services-TBD								Geographic locations: TBD USAID exercised its option in Modification 02 to commence this Task 9 on February 14, 2019.
	T9- Expansion of North Aqaba Wastewater Treatment Plant				92%	100%	93%		Geographic location: Aqaba Transferred from WSIP on March 23, 2020
	T9- Rehabilitation of Tafileh Wastewater Treatment Plant				55%	100%	74%		Geographic location: Tafileh Transferred from WSIP on March 23, 2020
	T9- Zara-Ma'in Water Supply Project				30%	100%	30%		Geographic location: existing Zara Ma'in WTP. The task covers the entire Zara Ma'in water supply system Transferred from WIPII on May 1, 2020.
IR 3.3.3 IR3.3.3.c: Number of approved engineering reports and/or studies	T1- Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP)Stage 1 Pre-Design Stage 2 Design Stage 3 Pre-Contract TBD	S1 = 0 year TBD	TBD	9					Reports will be prepared in CDM Smith Amman office USAID exercised its option in Modification 03 commenced Task 1
		S2 = 0 year TBD	TBD	0	7		1.S2 Phase 1		
		S3 = TBD	TBD	0					
	T2- Construction supervision Shedeyyeh-Hasa Water Project, Phase IB Stage 2 Design Stage 3 Pre-Contract (Phases 1 & 3 combined total)	S2 = 0 2018	1	0					
		S3, P1&3 = 0 2019	4	0					
	T3- Expansion of the Zai Water Treatment Plant Project	S1 = 0 2018	4	4 – S1 1. Water Quality Assessment					Scope of work has been revised

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
	Stage 1 Pre-Design Stage 2 Design (Phases 1-3)			2. TM- Water Quantity 3. Existing Conditions Assessment Report 4. Feasibility Options Report					
		S2/P1 = 0, 2018 S2/P3 = 0, 2019	2 (total S2)	0	4 (S2, P3)				
	T4- Expansion of the Madaba Wastewater Treatment Plant Stage 1 Pre-Design Stage 2 Design (Phases 1 – 3) Stage 3 Pre-Contract TBD	S1 = 0 2018	3	4 – S1 1. TM- WW Catchment Area 2. TM- WW Flow Projections 3. Condition Assessment Report 4. WWTP Feasibility Report					
	S2 = 0 2019	0	0	7 (S2,P1+3)					
	S3 = TBD	0	0						
	T5- Expansion of the Ramtha Wastewater Treatment Plan Stage 1 Pre-Design	S1 = 0 2018	3	7 – S1 1. TM- WW Flow Projections					

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
	Stage 2 Design (Phases 1 – 3) Stage 3 Pre-Contract TBD			2. TM- Anaerobic Digestion 3. Condition Assessment Report 4. Preliminary EIA 5. Feasibility Study 6 ESIA TOR and Scoping Report 7. ESIA					
		S2 = 0 2019	0	2-S2, P2 Prequalification Questionnaire 2. WWTP BoDR	7 (S2,P1+3)				
		S3 = TBD	0	0					
	T6- Water and Wastewater Project for Dair Alla and Al Karamah Stage 2 Design (Phases 1 – 3)	S2/P1 = 0 2018 S2/P3 = 0 2019	2 (S2,P1+P3)	3 – S1 1. TM-Wells Condition 2. TM-Abu Ezzighan WTP Condition 3 Feasibility Study Evaluation Report	5 (S2, P3)			2-S2 Phase 1	

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
				5 – S2, P2 Three Prequalification Questionnaires One Tender Document Dair Alla Wells Assessment BoDR WWTP					
	T7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate Stage 2 Design (Phases 1 – 3)	S2/P1 = 0 2019 S2/P3 = 0 2019	2 (S2,P1+P3)	0	4 (S2, P1+ P3)			1.S2 Phase 1	T7- commenced in December 2019
	Task 8-Draft Report of the Planning and Capacity Building Related to Covid-19 Monitoring Using Wastewater Surveillance in Amman, Jordan								
	T9 – A&E services 2018-2019: 11 Activities 2019-2022: TBD		TBD	4 – S1 1. Initial & Final Assessment -As Samra WWTP Second Expansion FS Review 2. Energy Efficiency Trip Report	0			1.S2 Phase 1	USAID exercised its option in Modification 02 to commence this Task 9 on February 14, 2019.

PROJECT INDICATORS	TASK NUMBER, INFRASTRUCTURE TYPE, STAGE, ETC.	BASELINE and YEAR	2018-2019 TARGET	2018-2019 ACTUAL	2019-2020 ACTUAL	2020-2021 TARGET	2020-2021 ACTUAL	2021- 2022 TARGET	COMMENTS
				3. Legal memorandum, opinions, and negotiation plan As Samra 4. Firm Proposal Technical Evaluation Report					
TBD <i>Potential data - context, gender, etc. related to learning agenda</i>									

PROJECT TASKS and START DATES

Task 1 – Red Sea/Dead Sea Conveyance Project, Phase II (USAID exercised its option in Modification 03 to commence this Task 1). Task 1 has been renamed: Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP). SOW was approved by MWI/WAJ and USAID on June 30, 2019 and was revised in June 2020 and again in August 2020.

Task 2 – Shedeyyeh-Hasa Water Project, Phase I (commenced in January 2019)

Task 3 – Zai Water Treatment Plant (commenced in August 2018)

Task 4 – Madaba Wastewater Treatment Plant (commenced in August 2018)

Task 5 – Ramtha Wastewater Treatment Plan (commenced in August 2018)

Task 6 – Dair Alla and Al Karamah Water and Wastewater Project (commenced in November 2018)

Task 7 – Bani Kenanah/Irbid Governorate Water and Wastewater Project (commenced in December 2019)

Task 8 – Technical Assistance and Training – water utilities (commenced July 16, 2020)

Task 9 – A&E Services (USAID exercised its option in Modification 02 to commence this Task 9 on February 14, 2019.)

New Performance Indicator Reference Sheet (PIRS)

The new PIRS follows the below discussion of the five tasks that are impacted and included in the indicator tracking table:

1. Task 3-Zai Water Treatment System Expansion: An existing conditions assessment report was prepared under the USAID Jordan Water Infrastructure. Based on an agreement with MWI/WAJ and USAID, the report was provided to JICA. JICA selected certain recommended improvements in the report to take forward into design. JICA provided MWI/WAJ with financing for those improvements on which JICA and MWI/WAJ reach agreement from the JICA study.
2. Task 5- Expansion of the Ramtha Wastewater Treatment Plan: Purpose is that AFD has expressed an interest in funding the construction of the design that will be produced under the USAID Jordan Water Infrastructure. Actual value to be determined.
3. Task 6- Water and Wastewater Project for Dair Alla and Al Karamah: Purpose is that EIB will be committing funds for the construction of the water/wastewater improvements that are designed under the USAID Jordan Water Infrastructure.
4. Task 7- Water and Wastewater Project for Bani Kenanah/Irbid Governorate: Purpose is that EIB funded the feasibility study therefore it is expected that EIB may fund construction of the designs that will be produced under the USAID Jordan Water Infrastructure. Actual value to be determined.
5. Task 9-As Samra WWTP Second Expansion: Purpose is that the private sector or international donors are expected to assist in the financing of this BOT project.

Annex I B Project Quality Management (PQM)-Critical Success Factor (CSF) and Processes, Activities, and Tasks (PAT) Matrix

		Critical Success Factors (CSFs)									Status
		1	2	3	4	5	6	7	8	9	
Processes, Activities and Tasks (PATs)		We must reconcile the conflict between the cost of different levels of service, while meeting environmental requirements and maximizing the use of available water resources	We must engage all stakeholders including local authorities and implement an effective communications program	We must have excellent program management and meet time schedules	We must obtain and evaluate existing data and studies	We must function as an effective project team	We must receive the support and ensure rapid decisions from WAJ and utilities	We must look for innovative solutions	We must reach agreement with MWI/WAJ on criteria and process for determining the financial feasibility for recommended solutions	We must engage all other donor organizations and their consultants to ensure a coordinated approach to all Tasks	
1	Gather records and information on existing facilities to be expanded or upgraded including previous studies ie Madaba WWTP to South Amman, Dorsch expansion of Ramtha WWTP and JICA pumps for Zai system		X	X	X	X	X		X	X	All information with few exceptions has been collected for Task 2, 3, 4, 5, 6 and 9 but will be ongoing during project life. Task 1 data gathering now that the SOW is defined.
2	Engage the input of Water Company operators in assessments and design	X	X		X			X			Assessments and existing conditions site visits included facility operation staff. Meetings to review Task 3 water quality and existing conditions reports included facility operation staff. The Operators of the WWTPs were involved in the existing condition assessment and in the ongoing activities for Tasks 4 and 5.
3	Coordinate with MWI/WAJ and USAID on additional KAC Water Quantities		X	X		X	X		X		Completed. No additional water in KAC for Zai expansion
4	Conduct periodic team building / information transfer meetings		X	X		X	X		X		First and second Project Planning and Scope Review Meeting (PPSRM) held for Tasks 3, 4, 5 and 6. Second meeting was held to understand JWI SOW and MEL Plan. 3rd to review CDM QMP all for CDM staff. Progress meetings are regularly held monthly or more often as required with USAID and MWI/WAJ, monthly project reviews and monthly staff meeting are regularly held with JWI management and team
5	Identify most urgent needs as early in the Project as possible in coordination with WAJ and USAID	X	X	X	X	X	X		X		Ongoing. Recently with MWI/WAJ and USAID agreement on the Task 1 SOW this task will move forward
6	Establish design criteria parameters including providing standards for system redundancy	X	X	X	X	X	X	X	X		This is underway in planning phase
7	Evaluate cost-effective solutions focusing on maximum and efficient use of water resources, energy efficiency and renewable energy potential	X	X	X	X	X	X	X	X	X	This is underway in planning phase and will be presented in feasibility studies
8	Ensure due diligence includes not only technical but also legal, etc.								X	X	Ongoing during project life. A legal review of the As Samra WWTP expansion was completed. Negotiation support to MWI/WAJ for the As Samra second expansion will include a local legal firm. Task 1 contracting mechanism, BOT, will include both an international and local legal firm
9	Utilize the output of all pertinent reports, including the Department of Statistics (DOS) census information and refugee status		X		X						DOS information being used for population forecasts and MWI/WAJ Water Reallocation Policy for water demand and wastewater projections. JS for water, effluent and solids

		Critical Success Factors (CSFs)									Status
		1	2	3	4	5	6	7	8	9	
Processes, Activities and Tasks (PATs)		We must reconcile the conflict between the cost of different levels of service, while meeting environmental requirements and maximizing the use of available water resources	We must engage all stakeholders including local authorities and implement an effective communications program	We must have excellent program management and meet time schedules	We must obtain and evaluate existing data and studies	We must function as an effective project team	We must receive the support and ensure rapid decisions from WAJ and utilities	We must look for innovative solutions	We must reach agreement with MWI/WAJ on criteria and process for determining the financial feasibility for recommended solutions	We must engage all other donor organizations and their consultants to ensure a coordinated approach to all Tasks	
10	Meet with other donor agencies and their consultants	X			X		X		X	X	Met with Dorsch on KfW funded energy project and on Wadi Shallalah WWTP. Met with USAID WMI, MESP, and WIT projects. Met with JICA on its planned funding for Task 3, with EIB on Task 6, and AFD on Task 5
11	Meet Jordanian reclaimed effluent water quality standards for the intended reuse and for sludge disposal	X	X		X		X	X	X		Reuse specialist has completed draft reuse studies for Tasks 4 and 5. They will be incorporated into feasibility studies. These studies also will be used for the EIA preparation activities
12	Work with USAID to provide project info into their website		X	X		X	X				Provided GIS locations of Tasks 1, 2, 3, 4, 5, 6, and 9 (As Samra WWTP site), USAID Fact Sheet, and provided approved reports to DEC
13	Conduct quarterly project reporting		X	X							Quarterly Reports are submitted and approved by USAID and submitted to MWI/WAJ.
14	Conduct workshops at designated milestones	X	X	X		X			X	X	PQM held August 30, 2018, Task 1 PQM scheduled for February 26, 2020. Meetings with MWI/WAJ, YWC, Miyahuna and USAID to review deliverables/ receive comments
15	Use Microsoft Project for project scheduling			X							In use
16	Identify schedule impediments as early as possible in the Project, and work to resolve issues that may cause delays	X		X	X	X	X		X		South Amman-Madaba scheme will delay FS for Madaba WWTP expansion. Additional studies for the assessment of water resources/wells under Task 6 have been agreed
17	Address stakeholder concerns to the MWI/WAJ		X						X		Ongoing
18	Coordinate with USAID and MWI/WAJ on SOW for TBD and optional Tasks		X	X	X	X					Meetings ongoing with MWI/WAJ and USAID to identify their priorities. Revised SOW for Task 1 has been agreed with MWI/WAJ and USAID.
19	Conduct kick-off meeting for each new task		X	X	X	X			X		PQM held 30 Aug 2018 for Tasks 3, 4, 5 and subsequent meetings with MWI/WAJ and USAID at commencing Tasks 6 and 9, PPSRM for Tasks 3, 4, 5 & 6 have been held, PPSRM will be scheduled for the new tasks. Kick-off meeting held February 18, 2019 for Task 2 w/MWI/WAJ, USAID, Contractor
20	Implement the plan to have WAJ and utility (Miyahuna and Yarmouk Water) employees seconded to the Project team			X		X	X				The plan was implemented in the fourth quarter 2019 with three WAJ seconded staff
21	Define and assist MWI/WAJ with timely land acquisition			X	X		X		X		Supported MWI/WAJ with land acquisition for wells under Tasks 2 and 3. TBD in planning phase
22	Define the power requirements for system expansions/upgrades and work the electrical agency responsible for providing new service to determine availability/cost	X	X					X			TBD in planning phase
23	Perform rapid decision-making	X	X	X			X		X		Ongoing as it relates to priority projects

		Critical Success Factors (CSFs)									Status
		1	2	3	4	5	6	7	8	9	
Processes, Activities and Tasks (PATs)		We must reconcile the conflict between the cost of different levels of service, while meeting environmental requirements and maximizing the use of available water resources	We must engage all stakeholders including local authorities and implement an effective communications program	We must have excellent program management and meet time schedules	We must obtain and evaluate existing data and studies	We must function as an effective project team	We must receive the support and ensure rapid decisions from WAJ and utilities	We must look for innovative solutions	We must reach agreement with MWI/WAJ on criteria and process for determining the financial feasibility for recommended solutions	We must engage all other donor organizations and their consultants to ensure a coordinated approach to all Tasks	
24	Integrate / coordinate individual task findings with all other related tasks for consistency		X	X		X					Ongoing
25	Get WAJ assistance when obtaining data from other agencies		X	X	X	X	X				Assistance is requested as needed and is ongoing
26	Obtain latest land use and Department of Land and Survey (DLS) drawings for the cities covered by the Project			X	X	X	X				Received for Tasks 2, 3, 4, 5 and 6, and TBD for other tasks

Annex I C-GENDER ACTION PLAN Gender Goal: Enhance Gender Integration and Female Empowerment in All Project Activities

Activity	Gender Consideration	Gender Goal	Timeframe
Task 1-7 - Task Preparation and Design			
PQM workshops	Female participation/active involvement	Participation: women's active involvement and reflection of considerations pre intervention.	Beginning of each task
Scoping sessions and Environmental Assessments	Female attendance and active involvement (stakeholders and local community)		
Existing conditions assessment	Apply a gender lens to the assessment.		
Preparation of detailed designs	Gender consideration to be addressed in the design process by including sanitation facilities dedicated for women to create an enabling work environment	Accessibility: create an enabling work environment for female engineers, when applicable <i>i.e. include sanitation facilities dedicated for women to create an enabling work environment.</i>	During design of task
Task 8 - Technical Assistance to Water Utilities			
Evaluation of entities situation	Applying gender sensitive lens to the evaluation.	Leadership: promote women's leadership through the provision of technical trainings, in addition to other interpersonal skills suitable for future professional growth.	Under Capacity Building Related to Covid-19 Monitoring, 8 female lab technicians and one from the Monitoring Unit received training.
Technical training	<ul style="list-style-type: none"> Where possible, ensure that all training activities include a female participation. Where possible, identify and deliver technical training that female staff need to enhance their leadership capacity. 		
Other Activities			
Capacity building of water utilities employees through the secondment of junior engineers	Target female junior engineers <i>60% of seconded staff are females.</i>	Leadership: promote young female engineers' leadership through the provision of technical trainings suitable for future professional growth.	2019-2020 Program ended due to COVID-19 restrictions.
Collaborating, Learning and Adapting (CLA) meetings	<ul style="list-style-type: none"> Collaborate with Gender Unit at MWI and other USAID funded projects on gender issues, i.e. <i>TAKAMOL and WMI</i> Development of gender issues as part of the learning agenda/participate in discussions 	Gender integration: in addressing gender inequalities throughout the life of the project.	Ongoing
Project communications materials	Gender-sensitive content and capturing gender related stories		Ongoing
HR and employment at USAID Jordan Water Infrastructure	<ul style="list-style-type: none"> Adhere to equal employment opportunity Employment of women as project staff – currently 23% of staff are females. Introduce gender concept to employees as part of the learning agenda. 		
Performance data	Gender disaggregated as per the MEL plan		Ongoing

Annex I D-AAWDCP- Critical Success Factors and Plan of Actions

Critical Success Factors

A critical success factor is an objective or result that must be achieved in order to accomplish the Project Mission. The following presents the 14 critical success factors identified by the participants that represent the most important factors necessary to ensure a successful AAWDCP and achieve the mission.

In addition to identifying these factors, the participants prioritized them using a simple voting method. Prioritization was determined by having participants identify the top three factors that were imperative to AAWDCP achieving its mission. The numbered list below identifies the 14 critical success factors and their ranking based on the participants' votes.

1. Ensure the ESIA (addressing environmental, social/community/stakeholder concerns, marine biodiversity) and all relevant consultation is completed before the RFP is tendered.
2. Ensure the sea water intake and brine discharge is protective of the environment and realistically constructible and maintainable.
3. Design an efficient and competitive tender process and ensure AAWDCP is attractive to investors and the water is affordable to recipients.
4. Coordinate with NEPCO to ensure the required power (and transmission capacity) is provided for the project and the design provides for optimal use of electricity and ensure coordination with the private sector for use of sustainable energy solutions (e.g., solar).
5. Reach consensus with MWI on design strategy (e.g., in addition to meeting Jordanian drinking water standards, do irrigation guidelines need to be met? Which of the Rum Farm GW wells will be used to produce the 30 MCM/year? Will desalinated water or wells be used to supply water to Aqaba?)
6. Apply lessons learned from previous BOT projects (e.g., ensure security of the water and infrastructure).
7. Have open and effective dialogue between the energy and water sectors.
8. Ensure/guarantee that the BOT off-takers will be paid and be paid in a timely manner.
9. Develop contract documents with clear milestones, completion tests, and performance and payment regime.
10. Build the capacity of Jordan water sector in design (i.e., desalination) and BOT contractors through on-the-job training.
11. Ensure all stakeholders have a clear understanding that MWI is directing the work and is the ultimate decision-maker.
12. Obtain the required consent and permits from stakeholders.
13. Identify the conveyance route and procure the required land.
14. Allow flexibility for innovation in technology.

Plan of Actions

The workshop participants were asked to identify priority actions that would support achieving the top six critical success factors. The participants were divided into three breakout groups, each developing a list of processes, activities, and tasks needed to achieve two of the top six critical success factors. In addition to this list, the participants were asked to do the following:

- Identify the entity responsible for implementing the processes, activities, and tasks.
- Assess the level of risk and execution by evaluating whether conducting the processes, activities, and tasks was achievable, and if they knew how to conduct the processes, activities, and tasks.

Each breakout group reported the results to all participants; as follows:

(a) Plan of Action for Critical Success Factor #1

To succeed, we must ensure the Environmental and Social Impact Assessment (ESIA) (addressing environmental, social/ community/ stakeholder concerns, marine biodiversity) and all relevant consultation is completed before the request for proposal (RFP) is tendered.

Processes, activities and tasks to be conducted:

- Participate in scoping sessions. **TO DATE:** Not scheduled at present by ESIA consultant
- Review documents. **TO DATE:** CDM team provided ESIA consultant with requested information and reports. Bi-weekly coordination meetings with USAID, EIB, MWI/WAJ, ESIA consultant are being held.
- Consider the transboundary environmental impact.

Responsible Entities: MWI, MoE, USAID Jordan, and the CDM Smith team, are responsible for participating in the scoping sessions and reviewing documents. The Consultant of the European Investment Bank (EIB) are responsible for conducting the Environmental and Social Impact Assessment (ESIA). The ASEZA Environmental Commissioner and MoE are responsible for considering the transboundary environmental impact.

Level of Risk and Execution: Achievable; process/activity/task is well understood.

(b) Plan of Action for Critical Success Factor #2

To succeed, we must ensure the sea water intake and brine discharge is protective of the environment and is realistically constructible and maintainable.

Processes, activities and tasks to be conducted:

- Begin communication between ESIA team and project development team to ensure the ESIA requirements are achievable for the BOT contractors; engage BOT in communications at a later stage. **TO DATE:** A kick-off meeting was held with the ESIA consultant, MWI/WAJ, USAID and EIB in May 2020, a coordination meeting was held in June 2020 and bi-weekly meetings are being held.
- Agree on a communication plan throughout the project. **TO DATE:** The communication plan between the ESIA consultant, MWI/WAJ, USAID and EIB has been agreed.
- Screen and review current Jordanian and international regulations/guidelines for discharge permits (determine if there are any new regulations/guidelines coming from European donor agencies or others) and site-specific discharge permits. **TO DATE:** This activity is understood to be with the ESIA consultant.
- Ensure the BOT bidders comply with ESIA permit requirements – these requirements must be included in the tender documents. **TO DATE:** The agreement will include the ESIA and EMMP.

- Perform baseline survey and bathymetry. **TO DATE:** Topographic surveys are complete, the CDM Smith bathymetry survey was completed and provided to the ESIA consultant (also performing the survey is required under the ESIA TOR), and geotechnical investigations are 95% complete.
- Define adequate critical design parameters. **TO DATE:** Conveyance system design criteria was approved. Alternatives for the desalination facility have been approved and the design criteria for the desalination facility were agreed upon.
- Define alternate brine disposal options in case discharge to Gulf of Aqaba is not feasible. **TO DATE:** A technical memorandum was provided regarding land-based brine disposal as a potential for salt recovery and was approved by MWI/WAJ. Technical Memorandum-Brine Quality Estimation for the Desalination Plant was submitted.

Responsible Entities: CDM Smith team and EIB Consultant for the ESIA.

Level of Risk and Execution: Achievable; process/activity/task is well understood.

(c) Plan of Action for Critical Success Factor #3

To succeed, we must design an efficient and competitive tender process and ensure AAWDCP is attractive to investors and the water is affordable to recipients.

Processes, activities and tasks to be conducted:

- Develop bankable, benchmarked and balanced risk allocation.
- Establish a clear RFP process timeline with an ample bid period and flexibility if needed. **TO DATE:** The technical, financial and legal staff under CDM Smith are developing the RFP and biweekly meeting are held with the team to coordinate efforts. A 3-day risk matrix workshop was held to review critical areas within the RFP documents and to determine areas where MWI/WAJ input is required.
- Develop a clear credit story to identify who stands behind the payments to prevent late payments.
- Develop clear and consistent tender documents from all perspectives – technical, financial, legal, and contractual. **TO DATE:** The technical process is proceeding and will provide the information required for financial and legal. DISI documents for agreements were received and reviewed and are used in the development of the Project Agreement and Appendices. The draft Instructions to Bidders and the Project Agreement were submitted on December 31, 2020 with areas to be addressed by MWI/WAJ highlighted.
- Provide clear, consistent and complete clarification responses to ensure bidders do not take divergent positions on RFP requirements; devote enough time to this activity.
- Establish clear evaluation criteria with appropriate weighting (i.e., what percentage of points to technical, financial, etc.). The process must be fair and transparent so all stakeholders understand how selection will be determined.

Responsible Entities: CDM Smith team in association with MWI and potential donor agencies.

Level of Risk and Execution: Achievable; process/activity/task is well understood.

(d) Plan of Action for Critical Success Factor #4

To succeed, we must coordinate with NEPCO to ensure the required power (and transmission capacity) is provided for the project and the design provides for optimal use of electricity and ensure coordination with the private sector for use of sustainable energy solutions (e.g., solar).

Processes, activities and tasks to be conducted:

- Establish a dedicated AAWDCP technical committee with representatives from MWI, WAJ, MEMR, Energy and Mineral Regulatory Commission (EMRC), and NEPCO. **TO DATE:** Meetings were held with EMRC regarding their responsibilities related to the rate structure and tariff and with EDCO the electrical distribution company that will provide the electrical service to each AAWDCP facility. EDCO is currently preparing the cost information and confirming the area required at each facility for their equipment. EDCO has coordinated with NEPCO for the responsibility of providing electric service to the SWRO site. JEPSCO has been contacted for the pump station in Amman. A NEPCO meeting was held on December 30, 2020 to identify certain limitations regarding the delivery of power to AAWDCP.
- Meet regularly throughout all phases of the project (prequalification for BOT, planning, project design, tendering, etc.). **TO DATE:** Completed pre-qualification questionnaires received from candidates on October 1, 2020. The MWI/WAJ is coordinating with the prime ministry regarding the establishment of an evaluation committee.
- Define energy needs (plant, pumping facilities, etc.), define operational scheme, determine tariffs (can smart solutions be applied), focus on energy savings to supply energy at the lowest cost, define how to coordinate with BOT. **TO DATE:** The change in system capacity was addressed and revisions of the power loads were provided to MWI/WAJ, EDCO, JEPSCO, and NEPCO.
- Determine how energy will be delivered to the project. **TO DATE:** Facility energy load requirements were sent to MWI/WAJ, EDCO, JEPSCO, and NEPCO to receive their information on sources of power and preliminary costs. The change in system capacity was addressed and revisions to the power loads were provided to MWI/WAJ, EDCO, JEPSCO, and NEPCO.

Responsible Entities: MWI, MEMR, EMRC, ASEZA, the KfW program, and CDM Smith team.

Level of Risk and Execution: Achievable and process/activity/task is understood, but it will take coordination and proactive action.

(e) Plan of Action for Critical Success Factor #5

To succeed, we must reach consensus with MWI on design strategy (e.g., in addition to meeting Jordanian drinking water standards, do irrigation guidelines need to be met? Which of the Rum Farm GW wells will be used to produce the 30 MCM/year? Will desalinated water or wells be used to supply water to Aqaba?)

Processes, activities and tasks to be conducted:

- Define and review water quality parameters (including boron) and requirements for reuse per reuse guidelines and standards. **TO DATE:** Water quality standards have been agreed.
- Analyze boron levels in seawater, existing drinking water, wastewater, and reuse streams. **TO DATE:** The seawater sampling and testing program were completed by MSS.

- Define wells to be used to produce 30 MCM/year. **TO DATE:** During August 2020, MWI/WAJ removed the groundwater wells from the AAWDCP and increased the capacity of the desalination plant.
- Meet with MWI to identify information needs. **TO DATE:** Constantly.
- Confirm water volumes (quantities) of wellfield and desalination plant with MWI. **TO DATE:** With the recent MWI/WAJ request to increase system capacity for Phases 1 and 2, the desalination plant capacity will be 150 and 250 MCM/year, respectively, while the conveyance pipeline will be 250 MCM/year and the groundwater wells were removed from the project. Discussions regarding feed connections to other governorates is ongoing.
- Confirm if desalinated water will be provided to Aqaba. **TO DATE:** Yes, at present two reservoirs will be constructed under AAWDCP for Aqaba with a total capacity of 7.7 MCM/year. One reservoir at the SWRO plant and the other at booster Pump Station No. 2. No pipelines are planned under the project. Aqaba will provide the pipelines from the reservoirs. The reservoir sizes are under discussion.

Responsible Entities: CDM Smith team and MWI.

Level of Risk and Execution: Achievable and process/activity/task is well understood, but decisions need to be made quickly.

(f) Plan of Action for Critical Success Factor #6

To succeed, we must apply lessons learned from previous BOT projects (e.g., ensure security of the water and infrastructure).

Processes, activities and tasks to be conducted:

- Consider previous Jordanian water BOTs (Disi and As Samra) during AAWDCP planning. Specifically,
 - Talk to the previous design team to gather lessons learned. **TO DATE:** Lessons learned were discussed with Dar Al Handasah the BOT conveyance designer for DISI and with our team on previous experience with desalinated facilities. The DISI ESIA was provided by MWI/WAJ.
 - Talk to the Special Purpose Companies (SPCs) (BOT project companies) for feedback of their experience.
 - Talk to MWI – was the technical scope adequate; should we introduce hydropower element for gravity fed pipes, can we clarify BOT and avoid potential future disputes, were the operations and maintenance (O&M) and safety standards used adequate or do we need more, were handback requirements at the end of BOT stringent and protective enough, how did MWI get enough cash to make prompt payments and avoid interest payments? **TO DATE:** A recent security system using drones has been implemented for DISI and the system is under consideration. Additionally, MWI/WAJ has agreed to provide the proceedings from the DISI arbitration to identify issues and disputes so that they can be mitigated in the future.
 - Consider the legal regime – review old BOT contracts against current laws and determine whether they need to be amended (e.g., any changes needed due to the 2014 Public Private Partnership (PPP) law?). **TO DATE:** The legal team is reviewing.

- Consider how expansion worked in past projects (advantages and disadvantages), could we manage better? What strategy do we want to employ to ensure competitive advantage for the next phase? **TO DATE:** This discussion is happening and ongoing.
- Consider previous auditing and monitoring – what was done in the past and was it adequate?
- Consider lessons learned from international desalination projects – Chile, Australia, UAE, Saudi Arabia.

Responsible Entities: CDM Smith team.

Level of Risk and Execution: Achievable; process/activity/task is well understood.

Annex II Geographic Data Reporting – GIS Template

The following table shows the activity location data for Tasks 1, 2, 3, 4, 5, 6, 7, 8, and 9.

The coordinates are extracted from Google Earth which uses WGS84 web Mercator and is consistent with DevResult requirements.

The coordinates for Task 1 are the proposed location of the desalination plant was added June 19, 2019.

The coordinates for Task 2 are a location central to the wellfield—seven wells are planned to be constructed. Task 2 was added January 29, 2019.

The coordinates for Task 3 are the location of the WTP. This task includes an area from the intake structure in Dair Alla in the Jordan Valley, a transmission system from Dair Alla to the WTP, and a transmission system from the WTP to the Dabouq reservoir in Amman.

The coordinates for Tasks 4, 5, and 9 are the WTP or the WWTP locations.

The coordinates for Task 6 are for the location of the WAJ office in Dair Alla. The water (17 localities) and wastewater (10 localities) improvements will cover the entire areas of Dair Alla and Al Karamah. The coordinates were added in November 2018.

The coordinates for Task 7 are for central Malka City, Bani Kenanah. The coordinates were added in December 2019.

The coordinates for Task 8 are at the Ain Ghazal pretreatment facility in Amman.

The coordinates for Task 9 for Sakan Kareem housing is central to the complexes and for Jordan-Iraq Power Interconnection is at the Iraq border in the Risha area of Jordan.

Activity	Sector	Governorate	Y	X	Note
USAID Jordan Water Infrastructure Task 1	Aqaba-Amman Water Desalination and Conveyance Project	From Aqaba to Amman	29.458357	35.036033	Location is the desalination plant in Aqaba. The task covers the entire water supply system including seawater intake, pump stations, and transmission pipelines
USAID Jordan Water Infrastructure Tasks 2 and 9	Shedeyyeh-Hasa Well Drilling Contract	Amman	31.490859	36.096587	Location is central to the wellfield. seven wells are planned and a WTP
USAID Jordan Water Infrastructure Task 3	Expansion of Zai Water Treatment Plant Project	Balqa	32.104975	35.715224	Location is the existing Zai WTP. The task covers the entire Zai water supply system which includes the WTP, pumping stations and transmission pipelines

Activity	Sector	Governorate	Y	X	Note
USAID Jordan Water Infrastructure Task 4	Expansion of Madaba WWTP	Madaba	31.697554	35.806146	Location is the existing Madaba WWTP
USAID Jordan Water Infrastructure Task-5	Expansion of Ramtha WWTP	Irbid	32.593664	35.988541	Location is the existing Ramtha WWTP
USAID Jordan Water Infrastructure Task-6	Water/Wastewater Project for Dair Alla and Al Karamah	Balqa	32.14964444	35.612894	Location is the WAJ office in Dair Alla. The task covers the entire Dair Alla and Al Karamah area with water and wastewater improvements.
USAID Jordan Water Infrastructure Task-7	Water/Wastewater Project for Bani Kenanah	Irbid	32.673750	35.750539	Location is Malak city, Bani Kenanah. The task covers the entire Bani Kenanah district with water and wastewater improvements.
USAID Jordan Water Infrastructure Task 8	Planning and Capacity Building Related to Covid-19 Monitoring	Amman	31.985857	35.977629	Location is the Ain Ghazal wastewater pretreatment facility
USAID Jordan Water Infrastructure Task-9	As Samra WWTP Expansion Feasibility Study Review, Legal Review, and Negotiation Support	Zarqa	32.15043056	36.166328	Location is the existing As Samra WWTP
USAID Jordan Water Infrastructure Task-9	Zara Ma'in Water Supply Project	Balqa	31.804071	35.57795	Location is the existing Zara Ma'in WTP. The task covers the entire Zara Ma'in water supply system
USAID Jordan Water Infrastructure Task-9	Tafileh WWTP	Tafileh	30.842589	35.609398	Location is the existing Tafileh WWTP
USAID Jordan Water Infrastructure Task-9	North Aqaba WWTP	Aqaba	29.570844	34.990456	Location is the North Aqaba WWTP
USAID Jordan Water Infrastructure Task-9	Sakan Kareem/Housing Projects Sanitary Services Projects	Irbid and Amman	32.434915 31.841826 31.923845	35.949888 35.979295 36.009690	The 3 Housing sites: Bader Princess Eman Abu Alanda
USAID Jordan Water Infrastructure Task-9	Jordan-Iraq Power Interconnection Activity	Mafrq	32.597525	39.0543972	Location is the Jordan Iraq border in the Risha area

Activity	Sector	Governorate	Y	X	Note
USAID Jordan Water Infrastructure Task 8	Planning and Capacity Building Related to Covid-19 Monitoring	Amman	31.985857	35.977629	Location is the Ain Ghazal wastewater pretreatment facility

Annex III Data Collection

Task 1 – Aqaba-Amman Water Desalination and Conveyance Project (AAWDCP)	
Item #	Received Data
1	Consulting Services for Environmental and Social Impact Assessment Study (ESIA)
2	Revised Concept Design Report
3	Red Sea- Dead Sea Project /Phase I Donors Pledging Conference, December 1st, 2016 Presentation
4	Red Sea- Dead Sea Project /Phase I Presentation
5	Red Sea- Dead Sea Project /Phase 1 Preliminary Technical Information Memorandum for Donors and International Financial Institutions, April 2016
6	AAWDCP Conceptual Design Report October 2018
7	MoPWH Right-of-Way for Roadways
8	Topographical Survey of Water Treatment and Intake Pump Station sites
9	Water Quality information of the Wadi Rum Wells
Task 2 –Shedeyyeh-Hasa Water Project	
1	Part 1/2 & 2/2 – Contract for Drilling, Constructing and Testing Boreholes in the Khan Al Zabib Wellfield
Task 3 – Expansion of Zai Water Treatment Plant Project	
Item #	Received Data
1	Zai WTP as-built Drawings (1985)
2	Zai As-built Drawings (1997)
3	Zai Expansion as-built Drawings (2000)
4	Zai WTP Expansion 2001
5	New Intake Station - modification completed in 2018
6	UV Installation Project
7	Abu Al Zeigan Wells
8	Intake, Topography, Entrance and Streets
9	Water Quality
10	Water Quantities
11	Site Visits Photos and Multimedia
12	KFW – Energy Projects Reports
13	O&M Manuals from the WTP
Task 4 – Expansion of Madaba WWTP	
Item #	Received Data
1	Madaba Upgrade Record Drawings 1998
2	WWTP flow (in- Out) (quality and quantity) (2015, 2016, 2017, 2018)
3	Madaba new PS and FM design (drawings and tender documents)

4	Organization Structure
5	Vehicle List
6	JICA Master Plan
7	Madaba WWTP O&M Manual
8	Report by RSS Treated Effluent & Biosolids Maize
9	Madaba Wastewater Collection System - GIS
10	Report by RSS Treated Effluent & Biosolids Maize
11	Meeting with employees & flow direction
12	Al-Dar Study report for Madaba transmission system
13	Madaba WWTP Daily Operation record data 2015 up to 2018 from site
14	Final Design Report Madaba 1996-WAJ Library
15	Miyahuna Labs tests results/external lab 2015-2017
16	Madaba Local Lab test results
17	Madaba operation and service manual 1989-WAJ library
18	Madaba operation and maintenance volumes; Mechanical, Process part 1/2, Process part 2/2
19	Madaba operation and maintenance manual 1989-WAJ library
20	Meteorological Data for Madaba and Queen Alia Airport Stations
21	DOS (2015 Data) Population Projection, yearbook, population based on nationality population based on gender and DOS growth rates for Madaba governorate up to 2050.
22	Madaba Contour and google Image from Al Mehwar
23	National Water Strategy (2016-2025)
24	Water Master Plan Reports and studies
25	Jordanian Standards for Air Quality
26	As-built Sewer Network & Villages Boundaries /Miyahuna
27	Existing customers on sewer network (GIS Format)
28	Qasabah Madaba Localities Boundaries in Geodatabase and shapefile formats form DOS
29	South Amman WWTP Design Report and Record Drawings
30	Madaba Geological Map from The Ministry of Energy
31	WAJ annual books 2010, 2015 & 2016
32	Al Dar Arabia Networks Plans from WAJ
33	South Amman -stage 3
34	South Amman -stage 1
35	Madaba Land use Soft and Hard Copy
36	WAJ - rainfall data
37	Miyahuna Operation Program for industrial and domestic WWTP and number of customers added on the network on yearly basis
38	Trunk line connecting to Madaba WWTP as-built Drawings including profile & plan
Task 5 – Expansion of Ramtha WWTP	
Item #	Received Data
1	Ramtha upgrade As-Built Drawings 2005
2	WWTP flow (quality and quantity)

	(2015, 2016, 2017, 2018)
3	JICA Master Plan
4	Ramtha WWTP O&M Manual
5	Effects of the Upgrading of Al-Ramtha WWTP on Quality of the Effluent and Environment
6	Report by RSS Treated Effluent & Biosolids Maize Final w Akrum's Edits
7	Sahel Horan Record Drawings
8	National Strategic Wastewater Master Plan Prepared by USAID/Jordan (ISSP)
9	Ramtha meeting with employees & flow direction
10	Ramtha Vehicles
11	Organization chart & list of employees and qualifications
12	Expansion of Ramtha WWTP O&M manual 1999 from WAJ library
13	Monthly WWTP site reports: operation and lab tests 2015 up to 2018
14	Ramtha final design report 1996-WAJ Library
15	The only available lab tests for local lab in the plant
16	Complete scanned As-Built drawing from Eng. Hisham Obidate/ manager of the plant
17	EPG speed Control 1983 manual
18	National Strategic Wastewater Master Plan Report 2014
19	Meteorological Data for Ramtha and Irbid Stations
20	DOS (2015 Data) Population Projection, yearbook, population based on nationality population based on gender and DOS growth rates for Ramtha governorate up to 2050.
21	Ramtha Contour and google Image from Al Mehwar
22	National Water Strategy (2016-2025)
23	Water Master Plan Reports and studies
24	Jordanian Standards for Air Quality
25	Ramtha Boundary -From DOS GIS Data
26	The Geology of Irbid and Ash Shuna report
27	Ramtha and Irbid Geological Maps from The Ministry of Energy
28	WAJ annual books 2010, 2015 & 2016
29	Ramtha land use Soft and Hard Copy
30	Expansion of Ramtha WWTP package 6 of Sahel Horan project (Dorsch Design)
31	Ramtha Existing Network shapefile -GIS Format
32	WAJ - rainfall data
33	Existing W_WW network with subscribers
34	Monthly report
35	CCMM Concept Report for effluent reuse of Shallala & Wadi Arab Effluent Reuse
36	Kofranjeh WWTP -As Built drawings
Task 6 – Water and Wastewater Project for Dair Alla and Al Karamah	
Item #	Received Data
1	Dair Alla Draft Feasibility Study Draft Report July 2018
2	Dair Alla Feasibility Study Draft and Final Report 2018

3	Dair Alla Feasibility Study Conceptual Report April 2018
4	Excel File – FS Population Model
5	Excel File – WWTP Process Design Calculations
6	Excel File – Project Costs
7	Excel File – Financial & Economic Analyses
8	Excel File – Water Use Categories
9	Google Earth File – Proposed Water and Wastewater Projects
10	GIS Data – Parcels/Lots
11	GIS Data - Dair Alla & Karamah Existing Water System (Pipes, Facilities & Fittings), Customer Points
12	GIS Data – Wells
13	GIS Data - Landmarks
14	GIS Data - Contours
15	Water System Model in EPANet format for Alt 4
16	Census 2004 and 2015 (DOS Data and Growth Rate Scenarios)
17	Jordan Statistical Yearbook 2016
18	WAJ Laboratory Data – Wells Water Quality Data
19	Water production data / Balqa governorate
20	NRW Data for 2015, 2016 and 2017
21	JICA 2014 Study Report
22	JICA 2017 Tender Document
23	2010 Dar Al-Omran Report and Tender Document for Water System Rehab
24	Tal- Al Mantah WWTP – Plant Description, Technical Specs & Some Effluent Quality Data
25	Jordan Drinking Water Standards
26	MWI Water Reallocation Policy
27	1992 MWI General Specs for Water Mains & Distribution Systems & Appurtenances
28	Journal Paper - 2015 Dams in Jordan Current and Future Perspective
29	Water loss Reduction – Middle Governorates Balqa and Madaba Report by Dorsch, 2013
30	Dair Alla Feasibility Study Draft and Final Report 2018
31	Dair Alla Feasibility Study Conceptual Report April 2018
32	Rehabilitation and Upgrading of Wells Immediate Measures Water Supply North Contract Documents, February 2013
33	Rehabilitation and Upgrading of Wells Immediate Measures for Improvement of Water Supply in Northern Jordan Directed to Syrian Refugees – Phase II - February 2014
34	JVA Plans of the Irrigation Network – Middle Jordan Valley
35	MoPWH Typical Road Crossing Details
36	Site Group – Rehabilitation of wells report for wells: Abu Ezzighan 16A, Juraiaah 2A, Juraiaah 4, Rajeb 1, Rajeb 1B, Rajeb 8 & Samahiyat 1 (old).
37	Site Group – Wells Final Report of wells: Abu Ezzighan, Abu Ezzighan 3A, Manaseer well in Karamah, Manaseer Well in Rama, Aghwar Wusta Well, Al-Qailat, Dayr Alla Well, Abu Ezzighan (8, 9, 10 & 11), Wadi Rajeb Deep & Hisban wells (1, 2, 3, 4 & 5).

38	Miyahuna Standard Details
39	GIS Data – Geology & Faults
40	Dair Alla WWTP – Plots/ Lands Deeds
Task 7 – Water and Wastewater Project for Bani Kenanah/Irbid Governorate	
Item #	Received Data
1	Bani Kenanah Feasibility Study Report
2	Bani Kenanah Existing Water System – GIS Data
3	Recent constructed Water Project – As-Built Drawings
4	Recent Tendered Water Projects – Design Drawings
Task 9 – Additional A&E Services	
Item #	Received Data
1	Aqeb Wells / Basalt Report
2	Hallabat, Dullail and Khaldiya Detailed Design Drawings and Tender Documents
3	Feasibility Study: use of renewable energy in water sector
4	Jordan Water Energy Project Feasibility Study, October 2014
5	Renewable Energy Program in Jordan, 2018
Task 9.1- Energy	
Item #	Received Data
1	Fichtner (KfW) Project Report
2	Energy Assessments in Jordanian Water Supply System Dorsch-KfW/GIZ
3	Final Report Assessment of pump efficiency – Hallabat PS Zarqa Desal Plant PS, Sharea PS, Azraq Spring PS Azraq PS, GTZ
4	Solar Projects in Water Sector – OST Energy-EBRD
5	Feasibility Study: Use of Renewable Energy in the Water Sector – 17 December 2018, Dorsch - KfW
Task 9.2- As -Samra WWTP	
Item #	Received Data
1	As -Samra WWTP Second Expansion Feasibility Study by Fichtner, April 2017
2	Estimated Population of the Kingdom by Governorate, Locality, Sex and Households DOS
3	Daily inflow data As Samra WWTP from 18.12.2014 to 17.11.2018, from AGTP, WZPS and EZPS
4	Geotechnical Site Investigation for Samra Expansion Project- Phase IIb Al Zarqa-Jordan
5	As Samra Biosolids Monofill Feasibility Assessment and Environmental Considerations
6	Kingdom-Wide Biosolids Management Plan
7	Zarqa Governorate Wastewater Reinforcement and Expansion - Engineering Design Report: Pump Stations
8	SPC – Projected WW Flow Chart, 2 nd /3 rd Expansion Planned Layout, Survey of Planned expansion area for integrated solution
9	Indicative Proposal from SPC for As Samra WWTP second expansion dated July 31, 2019
10	Indicative Proposal presentation by SPC for As Samra WWTP second expansion dated October 9, 2019
11	Firm Proposal from SPC for As Samra WWTP second expansion January 31, 2020
Task 9.5- Sakan Kareem Housing Project	
1	South Amman Wastewater System – GIS Data

2	Naimeh Wastewater System – GIS Data
3	Bader Housing Project /Internal Wastewater System – As-Built Drawings
4	Bader Housing Project / Central Septic Tank – As-Built Drawings
5	Princess Eman Housing Project /Internal Wastewater System – As-Built Drawings
6	Princess Eman Housing Project /WWT Package Unit – As-Built Drawings
7	Abu Alanda Housing Project /Internal Wastewater System – As-Built Drawings
8	Abu Alanda Housing Project /WWT Package Units – As-Built Drawings
9	Wadi Hassan WWTP – As-Built Drawings
Task 9.6- Jordan Iraq Power Interconnection Project	
1	Tender Documents for switchgear, transformers, overhead transmission lines and for the civil works–as prepared by NEPCO

Annex IV Training Report

The secondment program commenced in November 2019 with three MWI/WAJ staff working in the CDM Smith office and was expanded in January to include two Miyahuna and one MWI/WAJ staff. The secondment period for the individuals ranged from two to three months. With the commencement of MWI/WAJ seconded staff in November 2019, we began and continued until the COVID-19 work from home procedures began on March 18, 2020 with a semimonthly one-hour training program. These capacity-building sessions for the seconded staff and CDM Smith staff and partners enhance interaction and build bridges of communication between the three parties. The sessions include the design works of water and wastewater systems and treatment plants and learning about the environmental assessment process, and other relevant project-related subjects including soft skills in communications, gender concepts, and teambuilding. The sessions were and will be given by team subcontractors, staff, vendors and seconded staff. In September 2020, online sessions commenced for project employees only, based on feedback, sessions were conducted for a bigger audience including the previously seconded staff, subcontractors, and USAID. Three sessions were conducted in December 2020 on Wastewater Treatment Products and Applications, Water Supply Application and Features and Water Disinfection attended by project employees in addition to one from MWI, two from WAJ, and five from the Consolidated Consultants and one from AJ. Plans were underway for vendor training on GIS, and water and sewer modeling for local staff, interested subcontractor staff and seconded staff however because of COVID-19 the training was postponed. Depending on COVID-19 restrictions, training may be shifted to Q2 or Q3 2021.

Annex V Deliverables

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Work Plan 1 st Year	August 19, 2018	USAID Comments October 4, 2018	Resubmitted October 14, 2018	USAID approved November 1, 2018	DEC November 18, 2018
Work Plan 2 nd Year	June 20, 2019 July 1, 23 and 29, 2019	USAID USAID comments received	Resubmitted July 29, 2019	USAID approved August 1, 2019	N/A
Work Plan 3 rd Year	June 11, 2020 June 16, 2020	USAID USAID comments received	June 22, 2020	USAID approved June 24, 2020	DEC June 27, 2020

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
1 st Quarterly Progress Report	October 15, 2018	USAID Comments October 23, 2018	Resubmitted October 29 and November 4, 2018	USAID approved November 4, 2018 Sent Final to MWI/WAJ November 6, 2018	DEC November 13, 2018
2 nd Quarterly Progress Report	January 14, 2019	USAID, MWI/WAJ, USAID comments received January 31, 2019	February 3, 2019	USAID, MWI/WAJ USAID approved February 3, 2019	DEC February 7, 2019
3 rd Quarterly Progress Report	April 1, 2019	USAID	April 4, 2019 USAID approved April 15, 2019	USAID, MWI/WAJ	DEC April 15, 2019
1 st Annual Progress Report	July 3, 2019	USAID	July 21 and 23 comments from USAID. USAID approved July 24, 2019	USAID, MWI/WAJ	DEC August 19, 2019
5 th Quarterly Progress Report	September 30, 2019	USAID comments received October 10, 2019	October 15, 2019 USAID approved October 21, 2019	USAID, MWI/WAJ	DEC October 22, 2019
6 th Quarterly Progress Report	January 15, 2020	USAID comments received January 22, 2020	January 26, 2020	USAID, MWI/WAJ	DEC January 26, 2020
7 th Quarterly Progress Report	March 28, 2020	USAID comments received March 29, 2020	Approved by USAID April 7, 2020	USAID April 7, 2020, MWI/WAJ April 16, 2020	DEC April 12, 2020
2 nd Annual Progress Report	July 24, 2020	USAID comments received August 6, 2020	August 9, 2020	USAID approves August 11, 2020 MW/WAJ	DEC August 13, 2020
9 th Quarterly Progress Report	October 15, 2020	USAID comments received October 22, 2020	October 25, 2020	USAID	
10 th Quarterly Progress Report	January 15, 2020	USAID comments January 28, 2021	January 31, 2021	USAID MWI/WAJ	
Accruals - Quarterly	Send to USAID by the 15 th of the following months – March, June, September, December				N/A
Task 2-USDA Report	7 Quarterly Reports submitted to USAID for delivery to USDA, to date				N/A
Draft and Final MEL Plan	October 16, 2018	USAID comments November 7, 2018 resubmitted November 17, 2018 USAID comments December 10, 2018 resubmitted November 17, 2018	MEL Plan submitted as Final on Dec 23, 2018 to USAID	USAID USAID approval January 9, 2019	DEC February 18, 2019

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
		USAID comments December 10, 2018 and modified framework received December 20, 2018			
Revised MEL Plan	August 29, 2019	USAID	September 5, 2019 September 12, 2019	USAID USAID approval	DEC September 15, 2019
MEL Process and Guidelines	November 18, 2020	USAID	November 18, 2020	USAID approved	
PQM Workshop Report	October 1, 2018	USAID Comments October 4, 2018	Resubmitted October 6, 2018	USAID approved November 1, 2018	N/A
Task 1 AAWDCP-Stakeholder Consultation Workshop Summary Report	March 15, 2020	USAID, MWI/WAJ comments from both received March 16, 2020	March 27, 2020	MWI/WAJ, USAID and all Attendees	
USAID Fact Sheet	October 23, 2018	USAID		USAID approved February 12, 2019	DEC February 13, 2019
	August 24, 2019	USAID USAID Comments August 29, 2019	Resubmitted September 4, 2019	USAID approved October 10, 2019	DEC
	December 8, 2020	USAID for the JWJ			
	January 11, 2021	USAID for Zara, Tafileh, Aqaba			
Geographic Data Reporting			November 29, 2018 January 29, 2019 June 19, 2020 January 2020	DevResults for Tasks 3, 4, 5, 6, and 9 Task 2 Task 1 Task 7	Sent to DevResults
Task 3 - Technical Memorandum-Availability of Additional Source Water in the KAC			September 20, 2018	USAID, MWI/WAJ	DEC November 13, 2018
Task 3 – Zai Water Treatment Plant Project – Water Quality Assessment Report	October 31, 2018	USAID approved November 5, 2018			DEC November 13, 2018
	November 8, 2018	USAID, MWI/WAJ, Miyahuna met with Miyahuna December 4, 2018 to receive comments	December 17, 2018	USAID, MWI/WAJ, USAID approved February 3, 2019	DEC February 7, 2019
Task 3 – Zai Water Treatment Plant Project – Existing Conditions and Water Quantity Assessment Report	November 14, 2018	USAID, MWI/WAJ, Miyahuna met with Miyahuna December 4, 2018 to receive comments	April 24, 2019 July 3, 2019 USAID approved July 16, 2019	USAID, MWI/WAJ USAID comments	DEC August 19, 2019

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 9 – Field Assessment-Energy Efficiency and Renewable Energy in the Water Sector	November 19, 2018	USAID Comments November 29, 2018	January 14, 2019	USAID	
Tasks 4 and 5 – Technical Memorandum-Madaba and Ramtha WWTPs Wastewater Flow Projections	November 28, 2018	USAID, MWI/WAJ met with MWI/WAJ December 13, 2018 to discuss	Meeting minutes dated December 18, 2018 Technical Memorandum included as appendix in Madaba WWTP Condition Assessment Report		N/A
Task 5 – Technical Memorandum-Ramtha WWTPs Wastewater Flow Projections	February 6, 2018	USAID, MWI/WAJ	Meeting minutes dated February 6, 2019		N/A
Task 4 – Technical Memorandum-Madaba WWTP Wastewater Catchment Areas	December 17, 2018	USAID, MWI/WAJ	Meeting minutes dated January 30, 2019 Technical Memorandum included as appendix in Madaba WWTP Condition Assessment Report		N/A
Task 9 - Initial Assessment Report-As Samra WWTP Second Expansion Feasibility Study Review	December 20, 2018 December 30, 2018 January 2, 2019	USAID USAID, MWI/WAJ MWI/WAJ	This Initial Assessment was considered final when submitted		N/A
Task 6 – Dair Alla Water and Wastewater System Feasibility Study Evaluation Report	January 10, 2019 March 5, 2019	USAID, MWI/WAJ, EIB – presentation on January 28, 2019 EIB	March 31, 2019	USAID, MWI/WAJ	
Task 4 – Madaba WWTP Expansion – Condition Assessment Report includes results of the RSS sampling program	January 17, 2019	USAID, MWI/WAJ	March 31, 2019 May 5, 2019 July 1, 2019 July 29, 2019 August 7, 2019 August 22, 2019 August 25, 2019	USAID, MWI/WAJ Approved by USAID Comments from USAID Responses to Comments Comments from USAID Revised Final to USAID Approved by USAID	DEC May 6, 2019 DEC August 26, 2019
Task 9 - Assessment Report-As Samra WWTP Second	January 20 and 22, 2019	USAID, MWI/WAJ – presentation on	February 27, 2019	USAID, MWI/WAJ	N/A

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Expansion Feasibility Study Review		January 22 and 24, 2019			
Task 5 – Ramtha WWTP Expansion – Condition Assessment Report includes results of the RSS sampling program	January 22, 2019	USAID, MWI/WAJ	April 15, 2019 July 3, 2019 July 29, 2019 August 7, 2019 August 22, 2019 August 25, 2019 May 19, 2020	USAID, MWI/WAJ Comments from USAID Responses to Comments Comments from USAID Revised Final to USAID Approved by USAID Approved MWI	DEC August 26, 2019
Task 6 – Technical Memorandum - Initial Wellfield Evaluation Dair Alla and Al Karamah	February 13, 2019 March 5, 2019	USAID, MWI/WAJ, EIB	Technical Memorandum included as appendix in the Final Dair Alla Water and Wastewater System Feasibility Study Evaluation Report		N/A
Tasks 4 and 5 – Technical Memorandum – Anaerobic Digestion Process Options	February 28, 2019	USAID, MWI/WAJ			
Task 6 – Technical Memorandum – Abu Ezzighan Desalination Plant Condition Assessment	March 11, 2019	USAID, MWI/WAJ, EIB	Technical Memorandum included as an appendix in the Final Dair Alla Water and Wastewater System Feasibility Study Evaluation Report		N/A
			7 April 2019 updated as a result of MWI/WAJ comments	USAID and MWI/WAJ	
Task 6 – Prequalification Documents - Draft 1. Water Network 2. Desal WTP 3. Wells	March 28, 2019 April 15, 2019 April 16, 2019	USAID, MWI/WAJ Comments from MWI/WAJ April 7, 2019 Responses and revised documents to MWI/WAJ, USAID Sent to EIB			
Task 6 – Technical Memorandum on Abu Ezzighan Well Water Quality Data Evaluation	May 14, 2019	USAID and MWI/WAJ			
Task 5 – Preliminary Environmental Impact Assessment	June 12, 2019 June 20, 2019	USAID, MWI/WAJ, AFD Comments received from USAID	Updated September 29, 2019	USAID, MWI/WAJ,	

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 6 – Tender Documents Dair Alla Wells Assessment and Priced BOQ	May 27 and 29, 2019 June 2019 June 17, 2019 June 25, 2019 May 28, 2020 June 21, 2020	USAID, and MWI/WAJ Comments received Responded to comments and resubmitted tender documents Sent to EIB Received EIB Comments Responded to EIB comments	Tendered December 1, 2020 Retendered February 16, 2021	MWI/WAJ, EIB and GTD	
Task 5-Feasibility Study for the Ramtha WWTP Expansion	July 4, 2019 July 30, 2019 August 22, 2019 August 29, 2019	USAID and MWI/WAJ Comments from USAID Response to Comments Comments from USAID	September 16, 2019 Comments from Yarmouk Water Company October 14, 2019 May 19, 2020	USAID and MWI/WAJ Responses sent November 17, 2019 Addtl. Responses December 1, 2019 Approved MWI	
Task 5-Technical Memorandums Comparison of Balqa and Ramtha WWTPs Phased expansion for Ramtha WWTP cost estimate (11,000 m3/day)	July 17, 2019	USAID and MWI/WAJ			
Task 4-Pumping Madaba Wastewater to South Amman WWTP Options Memorandum	July 25, 2019	USAID and MWI/WAJ	August 8, 2019	MWI/WAJ comments received	
Task 5-Technical Memorandum Ramtha WWTP Reuse of Existing Structures	August 4, 2019	USAID and MWI/WAJ	August 6, 2019	USAID advised of no comments	
Task 6 – Technical Memorandum Dair Alla WWTP Design Approach	August 6, 2019 August 14, 2018 August 21, 2019	USAID and MWI/WAJ Comments from USAID Presentation to MWI/WAJ and USAID	August 8, 2019	USAID approval	
Task 5 – Ramtha Prequalification Questionnaire	August 18, 2019	MWI/WAJ and USAID	February 1, 2020	MWI/WAJ advertised the Questionnaire Receipt due June 2, 2020	
Task 3- Feasibility/Options Report	August 27, 2019 September 18, 2019	MWI/WAJ and USAID Comments from USAID			

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 6-Dair Alla and Karamah Water Networks BoDR	November 6, 2019 March 23, 2020 April 15, 2020 April 28, 2020 May 4, 2020	MWI/WAJ and USAID USAID comments Responses sent to USAID Responses sent to USAID USAID Comments Responses sent to USAID	March 5, 2020 October 22, 2020	MWI/WAJ approved MWI/WAJ and USAID	
Task 1-AAWDCP Prequalification Document	November 28, 2019	MWI/WAJ and USAID Comments from MWI/WAJ and USAID received in December 2019	March 1, 2020	Advertised by MWI/WAJ Receipt due September 30, 2020	
Task 6-Dair Alla Wastewater Collection System /Design Criteria	December 19, 2019	MWI/WAJ and USAID			
Task 2-Shedeyyeh-Hasa Status Report for USDA	1 st Report December 12, 2019	USAID	December 12, 2019	USAID and USAID forwarded to USDA	N/A
	2 nd Report January 22, 2020	USAID	January 23, 2020	USAID and USAID forwarded to USDA	N/A
	5 additional quarterly reports have been submitted				
Task 5-Ramtha WWTP Expansion Final TOR and Scoping Session Report	December 24, 2019 December 30, 2019	MWI/WAJ and USAID Comments from USAID	March 12, 2020	MoE approval	
Task 5-Ramtha WWTP Expansion BoDR	March 9, 2020	MWI/WAJ and USAID			
Task 1-AAWDCP TM Alternative Alignments around Queen Alia International Airport (QAIA)	January 30, 2020	MWI/WAJ and USAID	June 24, 2020	MWI/WAJ approval	
Task 1-AAWDCP TM Aqaba Water Supply	March 28, 2020 April 8, 2020 May 12, 2020 May 29, 2020 June 4, 2020	MWI/WAJ and USAID USAID comments AW comments CDM responses MWI comments	May 29, 2020 June 24, 2020	MWI/WAJ and USAID MWI/WAJ approval	
Task 1-AAWDCP Design Criteria Report Conveyance	March 28, 2020 April 8, 2020 May 29, 2020	MWI/WAJ and USAID USAID comments MWI/WAJ approved	June 14, 2020 July 11, 2020	MWI/WAJ and USAID	
Task 5- Ramtha WWTP Expansion-TMs for IPS options and CHP system	April 16, 2020	MWI/WAJ and USAID			

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 1-Updating Sections 15 and 16 of AAWDCP 2018 Concept Study	April 26, 2020 May 10, 2020	MWI/WAJ and USAID MWI comments	June 27, 2020 and updated Final on August 14, 2020	MWI/WAJ and USAID MWI/WAJ approval letter dated October 21, 2020	
Task 1-Desalination Plant Treatment Process Alternatives Report	April 26, 2020 May 7, 2020 May 20, 2020	MWI/WAJ and USAID MWI Comments Responses	June 24, 2020 July 12, 2020	MWI/WAJ approval	
Task 1-Evaluation of Salt Production from Brine Report	April 30, 2020 May 18, 2020 May 14 & June 11, 2020	MWI/WAJ and USAID USAID no comments MWI/WAJ comments	August 19, 2020	MWI/WAJ and USAID MWI/WAJ approval letter dated October 21, 2020	
Task 1-MSS Sampling and Testing Report Gulf of Aqaba	May 20, 2020	MWI/WAJ and USAID			
Task 5- Ramtha WWTP Expansion- Environmental and Social Impact Assessment	May 20, 2020 June 8, 2020 June 10, 2020	MWI/WAJ and USAID and AFD USAID comments AFD comments	June 23, 2020	MWI/WAJ and USAID and AFD	
	July 1, 2020	MoE-Arabic version	July 1, 2020	MoE approval July 28, 2020	
Task 5- Ramtha WWTP Expansion-Post-BoDR Technical Memorandums	May 20, 2020 June 7, 2020	MWI/WAJ and USAID Responses to YWC comments			
Task 9 – Technical Evaluation Report and Summary Technical Evaluation Report As Samra WWTP	May 2020	MWI/WAJ and USAID			
Task 9-Proposal Sakan Kareem Housing Project	May 31, 2020	USAID	July 16, 2020	Accepted by USAID	N/A
Task 8-Proposal- Planning and Capacity Building Related to Covid-19 Monitoring Using Wastewater Surveillance	June 14, 2020	USAID	July 16, 2020	Accepted by USAID	N/A
Task 9-Proposal Jordan-Iraq Power Interconnection Project	June 16, 2020	USAID	August 12, 2020	Accepted by USAID	N/A
Task 4-Expansion of Madaba WWTP Feasibility Study Report	June 30, 2020 September 15, 2020	USAID and MWI/WAJ USAID Comments			
Task 6-Dair Alla WWTP BoDR	June 30, 2020	USAID and MWI/WAJ			

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 1-Design Criteria Desalination Plant	July 25, 2020	USAID and MWI/WAJ MWI/WAJ comments November 30, 2020 Responses December 6, 2020			
Task 6 – Dair Alla Water/Wastewater Improvements Sewer Collection System Alternatives	July 25, 2020	MWI/WAJ and USAID			
Task 6 – Dair Alla Water/Wastewater Improvements Technical Memorandum-Dair Alla Water Supply System Scenarios	August 2, 2020	MWI/WAJ and USAID			
Task 1-Desalination Plant Conceptual Design Report Appendices	August 25, 2020 September 6, 2020	USAID and MWI/WAJ MWI/WAJ comments November 30, 2020 responses January 21, 2021			
Task 7 - Technical Memorandum-Population, Water Demand projections and Design Criteria	August 26, 2020	MWI/WAJ and USAID			
Task 9 - Sakan Kareem - Technical Memorandum-Wastewater Connection Options	September 2, 2020	MWI/WAJ and USAID	November 4, 2020	MWI/WAJ and USAID	
Task 1-TM Technical Assessment of Pipe Materials	September 3, 2020	USAID and MWI/WAJ			
Task 1 - Technical Memorandum-Brine Quality Estimation for the Desalination Plant	September 6, 2020	MWI/WAJ and USAID			
Task 8-TM Testing Method Capacity Building – Review of Initial Testing	August 10, 2020	USAID and MWI/WAJ			
Task 8-Environmental Mitigation and Monitoring Plan (EMMP)	September 20, 2020	USAID Comments September 20 and 29, 2020	October 6, 2020	USAID approved	
Task 6 – Dair Alla Water/Wastewater System	November 23, 2020	MWI/WAJ and USAID			

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
m TOR for the Preliminary PESIA for the Water Supply System		Comments from USAID December 2, 2020, Responses December 10,2020, USAID comments December 10, 2020			
	December 2, 2020	MoE Arabic Version MoE comments December 17, 2020			
Task 9 - Shedeyyeh-Hasa, TM on Radiological Assessment of Hasa Amman Khan Al Zabib Well Supply	November 25, 2020	MWI/WAJ and USAID			
Task 5-Ramtha WWTP Expansion Bidding Documents	December 17, 2020	MWI/WAJ and USAID			
Task 6 Dair Alla Design Definition Memorandum	December 17, 2020	MWI/WAJ and USAID Comments from USAID December 21, 2020			
Task 1 – Hydropower Production Potential	December 28, 2020	MWI/WAJ and USAID			
Task 1 – RFP Draft Instructions to Bidders and Draft Project Agreement	December 31, 2020	MWI/WAJ and USAID			
Task 6 - Technical Memorandum-Difference Between CDM Smith Designs and the Feasibility Study	January 26 2021	MWI/WAJ and USAID			
Task 8-COVID-19 Surveillance Report	January 27, 2021	USAID, MWI/WAJ USAID comments February 2, 2021 Responses February 27, 2021			
Task 5-Ramtha WWTP DBO Technical Tender Documents	February 7, 2021	USAID, MWI/WAJ, AFD			
Task 6-Dair Alla Wells Assessment Tender Documents Reissued	February 7, 2021	USAID, MWI/WAJ, EIB			
Task 9-As Samra WWTP Second Expansion Due Diligence Report-SWECO	March 7, 2021	USAID, MWI/WAJ			
Task 7 – Bani Kenanah Water and Wastewater System Feasibility Study Evaluation Report	March 23, 2021	MWI/WAJ and USAID			

Deliverable	Draft Submittal	To	Final Submittal	To	To DEC
Task 1 – AAWDCP Comments to Task 1.3 Brine Discharge Risk Assessment Report and Task 1.4 Pre-feasibility Study Report prepared by the ESIA consultant.	March 30, 2021	MWI and USAID			

Annex VI Staff

Long Term and Local Staff Assignments			
Name	Function	Start Date	End Date
Rick Minkwitz	COP/Project Manager	17-Jul-18	
Mehran Meserlian	Deputy COP/Project Manager	17-Jul-18	
Neveen Abdulghani	Assistant Project Manager	17-Jul-18	
John Crippen	Task Manager-Tasks 4 and 5	25-Aug-18	14-Sep-18
		1-Oct-18	
Meifa Chen	Task Manager-Tasks 6 and 7	13-Nov-18	30-Oct-19
Bader Kasab	Task Manager	24-Nov-19	
Bashar Al Hammouri	Civil Engineer	17-Jul-18	
Sawsan Bataineh	Senior Civil Engineer/Deputy Task Manager	22-Jul-18	
Luba Hamdi	Senior Civil Engineer/ Task Manager – Task 3	22-Jul-18	11-Jul-19
Sebouh Lebejian	Senior Civil Engineer – Tasks 6 and 7	5 May 19	April 2020
Ali Yousef	Civil Engineer	12-Aug-18	
Muhannad Al Masri	CAD Operator	17-Jul-18	
Lana Masannat	Administrative Manager	17-Jul-18	31-May-20
Manal Atallah	Administrative Manager	1-Apr-20	
Siham Shaban	Receptionist	13-Aug-18	
Hala Mawajdeh	Financial Manager	17-Jul-18	31-Jun-19
Emad Basal	Accountant	2-Sep-18	
Saif Ababseh	Computer and Network Specialist	17-Jul-18	
Maher Mezher	Driver	17-Jul-18	
Hosam Ihmaidan	Driver	16-Jun-19	
Mohammed Shalan	Office Helper	17-Jul-18	
Ahmad Smadi	Civil Engineer Task 6	18-Nov-18	
Faisal Hani Al Nouti	Civil Engineer-Task 6	18-Nov 18	12-Jan-19
Rana Al Hijazin	Civil Engineer-Task 6	17-Feb-19	4-Apr-19
Jude Odeh	Civil Engineer-Tasks 3 and 6	17-Feb-19	12-Jan-21
Jihad Majali	Drilling Supervisor – Task 2	3-Mar-19	
Aladdin K. Jawal	Geologist – Task 2	5-May-19	
Omar Abu Shanab	Geologist – Task 2	1-Jun-19	31-Mar-21
Mais Mukattash	Civil Engineer-Task 6	2-Jun-19	
Khaled Al Deisi	CAD Operator	7-Jul-19	
Dina T Sabbagh	Communications Specialist	1-Oct-19	
Mohammad Masaad	Hydraulic Modeler & W/WW Design Engineer	24-Nov-19	
Yazan Abbadi	Civil Engineer	1-Apr-20	
Gus Hazboun	Zara Main Construction Manager	1 May 20	
Marwa Hdaib	Administrative – Zara Main, Tafileh, N. Aqaba	1 May 20	
Dan Boucher	CMS Tafileh and North Aqaba WWTPs from HO	1-Apr-20	
	CMS Tafileh and North Aqaba WWTPs in Jordan	1-Nov-20	
Mark Matchett	Task 1-AAWDCP from HO	1-Jul-20	

	Task 1-AAWDCP in Jordan	8-Oct-20	
Bashar Khalil	Task 8- Planning and Capacity Building for Covid-19 Monitoring Using Wastewater Surveillance	Aug-20	31-Mar-21
Rawan Abu Eitah		Aug-20	31-Mar-21
Mohammad AlHunatti		Oct-20	
Faris Salous	Project Control Specialist	20-Sep-20	
Temporary Duty Assignments			
Name	Function	Start Date	End Date
Mark White	WTP Process Engineer – Task 3	6-Aug-18	17-Aug-18
Richard Lof	Mechanical Engineer – Task 3	24-Aug-18	31-Aug-18
Stephen Fontneau	Electrical Engineer – Task 3	24-Aug-18	31-Aug-18
Saed Hussain	Instrumentation Engineer – Task 3	24-Aug-18	31-Aug-18
Christopher Oot	Officer in Charge – PQM and PA Orientation	28-Aug-18	31-Aug-18
Ammar Daoud	Contract Sales Leader PQM and PA Orientation	28-Aug-18	31-Aug-18
	AAWDCP-Stakeholders Consultation Workshop	25-Feb-20	28-Feb-20
Charles Tellis	Subcontract Manager PQM and PA Orientation	27-Aug-18	31-Aug-18
Jeffrey Montera	Development Assistance Manager PQM and PA	27-Aug-18	31-Aug-18
Harold Gillam	PQM Facilitator	25-Aug-18	31-Aug-18
Salem Ali	Contract Administrator	8-Sep-18	13-Sep-18
Matt Antill	O&M Specialist – Task 4 and 5	2-Sep-18	17-Sep-18
Margaret Harritt	M&E Specialist – Consultant	19-Sep-18	05-Oct-18
Jeffery Dickinson	Renewable Energy Specialist – Task 9	7-Oct-18	26-Oct-18
Philipp Stepan	Task 9 - As Samra Expansion Feasibility Study Review	1-Dec-18	7-Dec-18
		13-Jan-19	18-Jan-19
		22-Jan-19	24-Jan-19
Mareike Jenne	Task 9 - As Samra Expansion Feasibility Study Review- Master Specification Database	1-Dec-18	7-Dec-18
		13-Jan-19	18-Jan-19
		2 Feb-20	14-Feb-20
Henning Moe	Task 6 – Dair Alla W/WW Systems – Wells	24-Jan-19	30-Jan-19
Greg Wetterau	Task 6 – Dair Alla W/WW Systems – RO Plant-evaluation and bench scale testing	26-Jan-19	1-Feb-19
		13-Oct-19	18-Oct-19
Howard Wong	Task 2 –Shedeyyeh-Hasa Well Drilling Contract	28 Jan 19	12 Feb 19
		21-Aug-19	2-Sep-19
Timur Deniz	Tasks 4, 5, and 6 – WWTP feasibility study options and layouts	3- Mar-19	21-Mar-19
		28-Jun-19	12-Jul-19
		18-Aug-19	22-Aug-19
Mark White	WTP Process Engineer – Task 3	6-Apr-19	12-Apr-19
Theresa Jurotich	Financial Analysis – Tasks 4 and 5	8-Jun-19	14-Jun-19
Stephen Fontneau	Electrical Engineer – Tasks 3, 4, 5 and 6	18-Jun-19	28-Jun-19
Keith Williams	Task 9 As Samra WWTP–Negotiation Coordinator	16-Aug-19	28-Aug-19
		21-Oct-19	26-Oct-19
		6-Nov-19	16-Nov-19
		2-Feb-20	10-Feb-20
John Munoz	Task 9 As Samra WWTP -BOT Specialist	17-Aug-19	25-Aug-19
		11-Nov-19	15-Nov-19
		8-Dec-19	18-Dec-19
		2-Feb-20	21-Feb-20
Richard Tsang	Task 9 As Samra WWTP-Biosolids Specialist	21-Oct-19	26-Oct-19
Robert Magsipoc	Task 9 As Samra WWTP-Electrical Engineer	2-Nov-19	10-Nov-19
Mark Cusac	Task 9 As Samra WWTP-Instrumentation/SCADA	4-Nov-19	9-Nov-19
Travis Meyer	Tasks 4, 5, 6–WWTP Process Engineer	11-Nov-19	22-Nov-19
		2-Mar-20	13-Mar-20
Christian Jabre	Task 9 As Samra WWTP-KPMG financial	11-Nov-19	14-Nov-19
		24-Nov-19	26-Nov-19

		30-Nov-19	1-Dec-19
		16-Feb-20	21-Feb-20
Marion Quenolle	Task 9 As Samra WWTP-KPMG financial	11-Nov-19	14-Nov-19
		16-Feb-20	21-Feb-20
Randa Chichakli	Task 1-AAWDCP-Stakeholder Workshop-Facilitator	25-Feb-20	29-Feb-20
Cecile Toupiol	Task 1-AAWDCP-Stakeholder Workshop	22-Feb-20	28-Feb-20
Beatriz Garcia	Task 1-AAWDCP-Stakeholder Workshop	22-Feb-20	28-Feb-20
Greg Wetterau	Task 1-AAWDCP-Stakeholder Workshop	22-Feb-20	28-Feb-20
Nizar Azar	Task 1-AAWDCP-Stakeholder Workshop-DAR	24-Feb-20	27-Feb-20
Sirine Maalouf	Task 1-AAWDCP-Stakeholder Workshop-DAR	25-Feb-20	27-Feb-20
Kiwan Kiwan	Task 1-AAWDCP-Stakeholder Workshop-KPMG	24-Feb-20	27-Feb-20
Adam Pierson	Task 1-AAWDCP-Stakeholder Workshop-W&C	24-Feb-20	27-Feb-20
Caroline Miller Smith	Task 1-AAWDCP-Stakeholder Workshop-W&C	24-Feb-20	27-Feb-20
Raman Gopalan	WWTP Design Project Engineer/Assistant to John Crippen	2-Mar-20	13-Mar-20
Seconded Staff			
Hassan Sheyaib	WAJ	10-Nov 19	March 18,2020 due to COVID
Alaa Mehain	WAJ	10-Nov 19	
Zaid Abu Saalik	WAJ	10-Nov 19	
Muna Al Shunnaq	WAJ	5-Jan 20	
Razan Al Zboun	Miyahuna	5-Jan-20	29-Feb-20
Wafaa Khraisat	Miyahuna	1-Mar-20	18-Mar-20
AJ Staff			
Ayham Obaidat	AJ	14-Jan-20	
Mohammad Al-Rejoub	AJ	14-Jan-20	
Samer Matlab	AJ	14-Jan-20	

PA – Post Award

Annex VII Meetings

Representatives	Date	Purpose
CDM, MWI/WAJ	January 3, 2021	Task 9-Tafileh WWTP variation orders
USAID, MWI/WAJ, CDM, GIZ, BGR	January 4, 2021	Task 1-AAWDCP southern governorates water demand
MWI/WAJ, CDM, HAE	January 10, 2021	Task 9-Amman Water Improvements CMS kick-off meeting
USAID, MWI/WAJ, CDM, AJ	January 11, 2021	Task 5-Ramtha WWTP expansion DBO document review
MWI/WAJ, CDM, MoPWH	January 11, 2021	Task 6-Dair Alla coordination meeting with MoPWH
USAID, MWI/WAJ, CDM	January 13, 2021	Task 6-Dair Alla coordination meeting to discuss definition memo regarding relocation of WWTP and impact on WW networks
CDM, MWI/WAJ	January 17, 2021	Task 9-Tafileh WWTP variation orders
USAID, MWI/WAJ, CDM,	January 24, 2021 Telcon	Monthly coordination meeting on Jordan Water Infrastructure status
MWI/WAJ, CDM, NEPCO, EDCO	January 25, 2021	Task 1-AAWDCP discussion on electrical power demands and required information
USAID, MWI/WAJ, CDM	January 27, 2021	Task 6-Dair Alla coordination meeting to discuss integration of Tal Mantah septage facility
CDM, SPC	February 1, 2021 February 1, 2021	Task 9 – As Samra site visit to obtain flow meter information

Representatives	Date	Purpose
USAID, CDM	February 1, 2021 Telcon	Task 1-AAWDCP discussion regarding rerouting brine, seawater and freshwater pipelines through Wadi Araba and Karak
H.E. Minister, MWI/WAJ, USAID, CDM, SWECO	February 4, 2021	Task 9–As Samra to discuss negotiation due diligence scope of work
CDM, Sajdi CEC	February 4, 2021	Task 9-Amman Water Improvements handover of CMS to Sajdi CEC
H.E. Minister, MWI/WAJ, USAID, CDM,	February 7, 2021 Telcon,	Jordan Water Infrastructure brief on all Tasks
CDM, MWI/WAJ	February 7, 2021	Task 9-Tafileh WWTP variation orders
CDM, MWI/WAJ, EIB	February 8, 2021	Task 6-Dair Alla well assessment and funding for Task 6
USAID, Aqaba Water, CDM,	February 14, 2021	Task 9-Status of the North Aqaba WWTP construction
USAID, CDM, KPMG	February 17, 2021 Telcon	Task 1-AAWDCP discussion on financial model and critical issues
USAID, CDM,	February 21, 2021, Telcon	Task 9-Jordan Iraq Power – FARA Milestones
CDM, AJ	February 21, 2021	Task 5-Ramtha WWTP expansion-Contract tender documents
USAID, MWI/WAJ, CDM,	February 21, 2021 Telcon	Monthly coordination meeting on Jordan Water Infrastructure status
H.E. Minister, H.E. SG WAJ, MWI/WAJ, USAID, CDM,	February 22, 2021	Task 9-Status of the North Aqaba WWTP construction completion schedule
USAID, CDM, NEPCO	February 23, 2021 Telcon	Task 9 – Task 9-Jordan-Iraq Power Interconnection Activity – Tender documents for Communications, Civil, Transformers and cost information
USAID, CDM, NEPCO	February 24, 2021 Telcon	Task 9 – Task 9-Jordan-Iraq Power Interconnection Activity – Tender documents for Switchgear and cost information
CDM, Site Group,	March 1 and 2, 2021	Task 6 – Dair Alla pre-tender site visit and meeting for Wells Assessment
USAID, WYG, and stakeholders	March 1, 2021 Telcon	Task 1 – AAWDCP ESIA Scoping Session in Aqaba
CDM, Site Group	March 2, 2021	Task 2-Khan Al Zabib contract status update
CDM, SWECO	March 2, 2021 Telcon	Task 9-As Samra second expansion due diligence report review
MWI/WAJ, CDM	March 7, 2021	Task 7-Site visit to Bani Kenanah for reservoir sites
US Ambassador, Mission Director	March 8, 2021 Telcon	Implementing Partners meeting
MWI/WAJ, CDM, JVA	March 9, 2021	Task 6-Site visit to Dair Alla for wastewater pump stations and pipeline routing near highway and under KAC
USAID, MWI/WAJ, CDM, and invited guests	March 10, 2021 Telcon	Task 8-Workshop presentation of the capacity building activity related to COVID-19 monitoring using WW Surveillance
MWI/WAJ, USAID, CDM, representatives of the KfW, EBRD and European Union	March 11, 2021 Telcon	Task 1-AAWDCP status and discussion on funding and renewable energy
CDM, HAE	March 20, 2021	Task 9 – Tafileh WWTP status
H.E. the Minister, SG WAJ, MWI/WAJ, USAID, CDM, SWECO	March 21, 2021 Telcon/In person	Task 9- As Samra WWTP second expansion due diligence report prepared by SWECO and other JWI issues

Representatives	Date	Purpose
MWI/WAJ, SG MWI, SG MoEMR, NEPCO, CDM,	March 22, 2021 Telcon/In person	Task 1-AAWDCP meeting with NEPCO and MoEMR regarding electricity tariff and available electrical capacity
USAID, MWI/WAJ, CDM,	March 28, 2021 Telcon	Monthly coordination meeting on Jordan Water Infrastructure status
H.E. the Minister, SG WAJ, MWI/WAJ, USAID, CDM,	March 30, 2021 Telcon/In person	Task 9- As Samra WWTP second expansion due diligence report and next steps

The above represents key meetings during the quarter. However, there were many more meetings in-person and virtually by staff in the process of presenting technical memorandums and studies, working with GTD on the Dair Alla Well Assessment tender documents and advertisement, data collection from MWI/WAJ, the water companies, Department of Statistics (DOS), Jordan Valley Authority, Ministry of Public Works and Housing, municipalities, and site visits to Shedeyyeh-Hasa wellfield, Dair Alla and Al Karamah, Ramtha and Madaba WWTPs, Bani Kenanah, Aqaba, municipalities along the AAWDCP pipeline route and the WTP and IPS sites, with subcontractors, and with MWI/WAJ on the e-Library. Also contact with and meetings with Tafileh WWTP, North Aqaba WWTP, and Zara Ma'in CMS staff and contractors.

Annex VIII Management and Administrative Issues

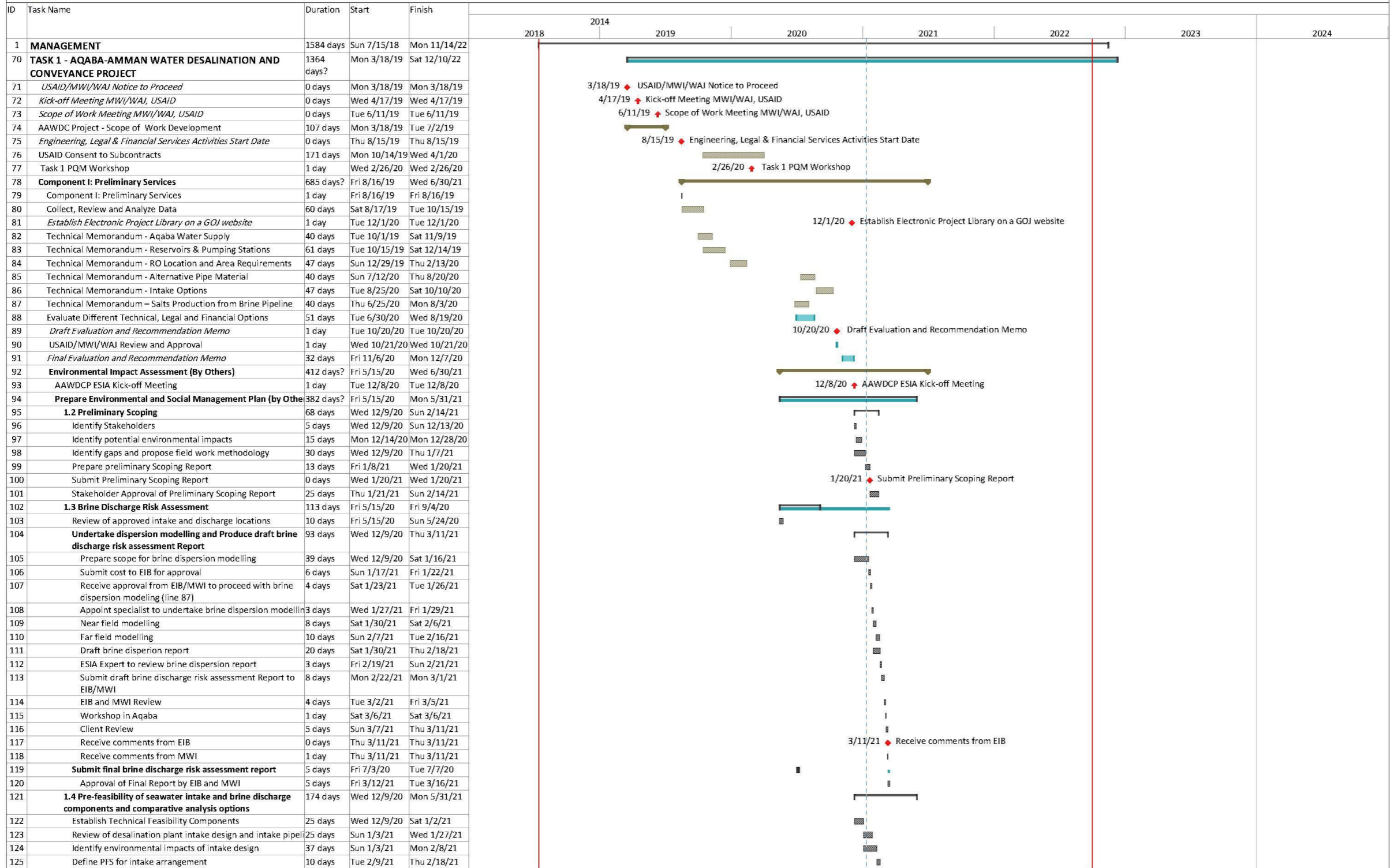
The challenges associated with COVID-19 and the GOJ requirements since March 18, 2020 will have to be dealt with during the immediate future. During the period through March 2021, the impacts on international travel have lessened but have continued forcing virtual meetings with international stakeholders, while local travel restrictions were relaxed which allowed local face-to-face meetings, site visits, and access to construction site visits. However, with Friday lockdowns and curfew restrictions continuing through May 15, 2021 and it may signal further restrictions thus making virtual meetings the only option locally. However, as we moved through this period skeleton-staffed offices are now open, the virtual meetings continue to improve as the different meeting platforms were more easily accessed by attendees, and the challenges of limited internet service and computers for staff at home are improved. During the period, we all continued to get much better at addressing the issues in our workday and daily life. The difficulty is the unknown timeframe for the duration of the pandemic. Site Group on the construction site in Khan Al Zabib continued to work and our construction management staff has been on-site while the CMS activities on the Tafileh and North Aqaba WWTP sites are continuing although positive COVID-19 cases on each site were a concern and are being addressed.

Annex IX Sub-Award Details

Subcontractor/Consultant	Description	Date Approved
Margaret M. Harritt	Project Monitoring and Evaluation Expert (MEL Specialist)	Sept 18, 2018
Royal Scientific Society (RSS)	Tasks 4 and 5 - Wastewater Sampling and Testing Programs at Madaba and Ramtha WWTPs	Oct 3, 2018
	Tasks 4 and 5 – Testing of Soil Samples	May 25, 2019
	Tasks 4 and 5 - Wastewater Sampling and Testing Programs at Madaba and Ramtha WWTPs	Nov. 7, 2019
	Tasks 4 and 5 - Wastewater Sampling and Testing Programs at Madaba, Ramtha, and Tal Mantah WWTPs	Sept. 6, 2020
	Task 4 – Madaba WWTP Buried Sludge Sampling and Testing	March 2021
Mr. Howard Wong	Task 2 - Hydrogeology Specialist - (Advisor: Well Drilling, Construction and Testing)	Jan 15, 2019
		Apr. 9, 2020
		Mar 11, 2021

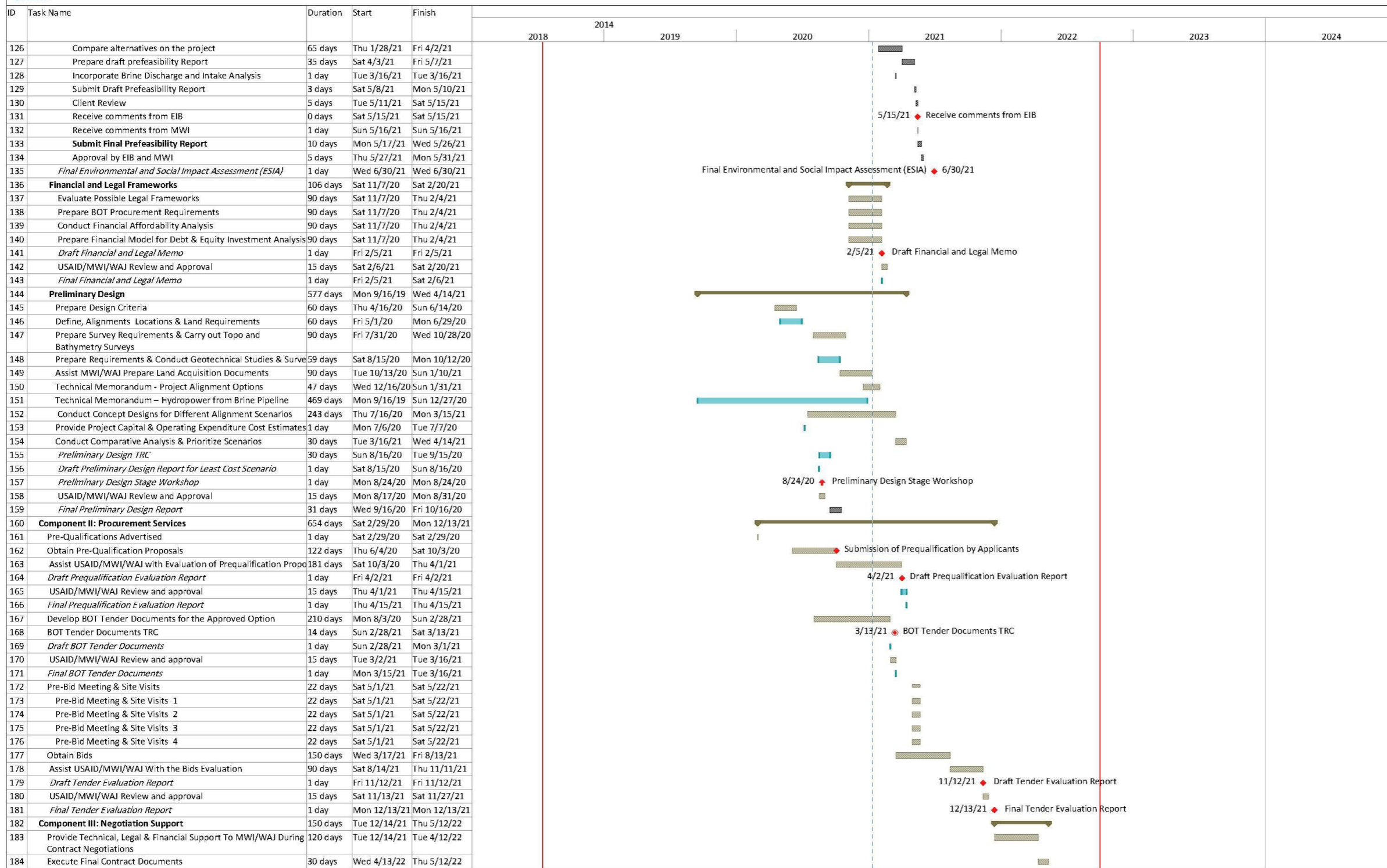
Subcontractor/Consultant	Description	Date Approved
Dr. Ahmad Abu Awwad	Tasks 4 and 5 – Reuse/Agricultural Specialist	Feb 18, 2019
	Tasks 4 and 5 – Reuse/Agricultural Specialist	Nov. 19, 2019
	Tasks 4 and 5 – Reuse/Agricultural Specialist	June 17, 2020
Aljazy & Co.	Task 9 - Phase III expansion of the As Samra WWTP – Legal review of BOT RPA	Mar 27, 2019
	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation legal support Phase A	July 11. 2019
	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation legal support Phase B	March 31, 2020
	Task1-AAWDCP BOT	April 28, 2020
Andrew Ness, Advisory, LLC	Task 9 – Legal review As Samra WWTP	Apr. 7, 2019
	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation legal support QA/QC	July 11. 2019
	Task1-AAWDCP BOT	April 28, 2020
Consolidated Consultants	Task 6 – Dair Alla WW network designs	Apr 15, 2019
	Basic Ordering Agreement (BOA)	Jan 7, 2020
	Task Order 002 – CCG staff for Task 6 Dair Alla	Apr. 14, 2020
	Task Order 003 – CCG staff Task 9 Estimation	Apr. 22, 2020
	Task Order 004 – CCG staff Sakan Kareem	Sept. 21, 2020
	Task Order 005 – CCG staff Jordan Iraq Power	Sept. 1, 2020
	Task Order 006 – ESIA for Madaba WWTP and Dair Alla WW and WW design for Pump Stations and Zarqa River trunk pipeline	March 16, 2021
Al Mehwar Survey	Tasks 3, 4, 5, 6–Survey works–Task Order 001	May 1, 2019
	Tasks 5 and 6 – Survey Works – TO 001, Mod 01	June 30, 2019
	Tasks 5 and 6 – Survey Works – TO 001, Mod 02	Nov. 18, 2019
	Task 9-Survey Works Zara, Tafileh, Hasa- TO 001, Mod 03	June 9, 2020
	Tasks 1, 6, 8, 9-Survey Works- TO 001, Mod 04	Dec. 8, 2020
Arabtech Jardaneh	Basic Ordering Agreement (BOA)	May 1, 2019
	Task Order 001 - ESIA	June 27, 2019
	Task Order 001, MOD 01 - ESIA	Jan 15, 2020
	Task Order 001, MOD 02 - ESIA	Sept. 24, 2020
	Task Order 002-AJ staff for Task 5	Jan 8, 2020
	Task Order 003-AJ staff for Task 7	March 22, 2020
	Task 9-CMS for Tafileh and Aqaba WWTPs	Apr. 10, 2020
Task 9-CMS for Tafileh/Aqaba WWTPs MOD 1	Nov. 22, 2020	
KPMG	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation financial support Phase A	July 11. 2019
	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation financial support Phase B	March 31, 2020
	Task1-AAWDCP BOT	June 24, 2020
Marine Science Station (MSS) in Aqaba of Jordan University	Task 1 – Seawater Sampling and Testing	February 6, 2020
Dar Al Handasah	Task1-AAWDCP BOT	May 5, 2020
White & Case	Task1-AAWDCP BOT	June 25, 2020
Arab Center for Engineering Studies (ACES)	Tasks 4 and 5-Geotechnical Investigations Ramtha and Madaba WWTPs	Sept. 1, 2020
SWECO	Task 9 - Phase III expansion of the As Samra WWTP – Negotiation Due Diligence	January 28, 2021

Annex X Schedule



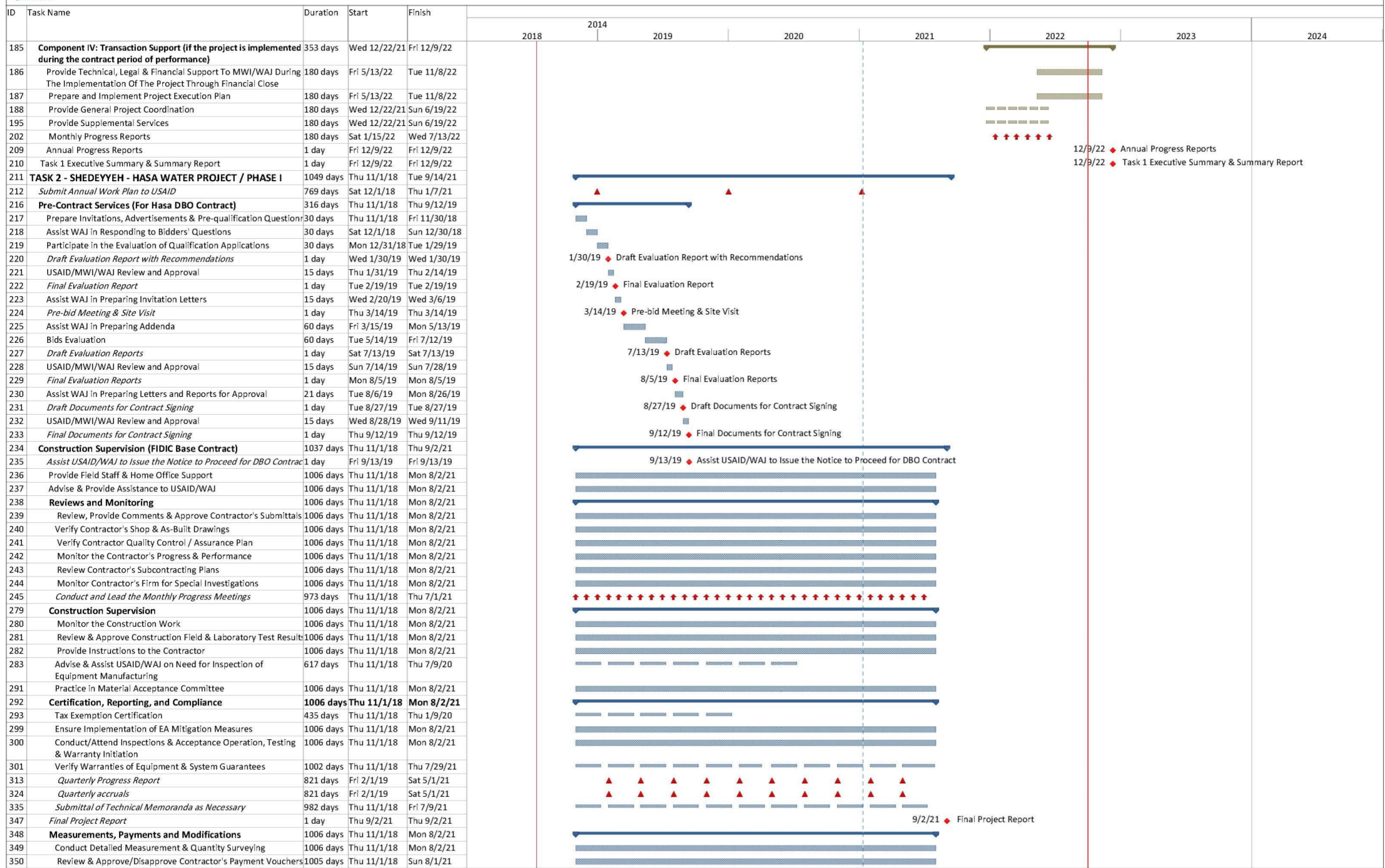
Legend:
TRC: Technical Review Committee
PQM: Project Quality Management

Task Order Signed: July 15 2018
Tasks 3, 4 & 5 Start Date: Aug 1 2018
Task 6 Start Date: Nov 1 2018
Task 1 Start Date: Mar 18 2019
Task 9 Option Exercised Feb 14 2019
Task 7 Start Date: Dec 09 2019
Project End Date: Sep 30 2022



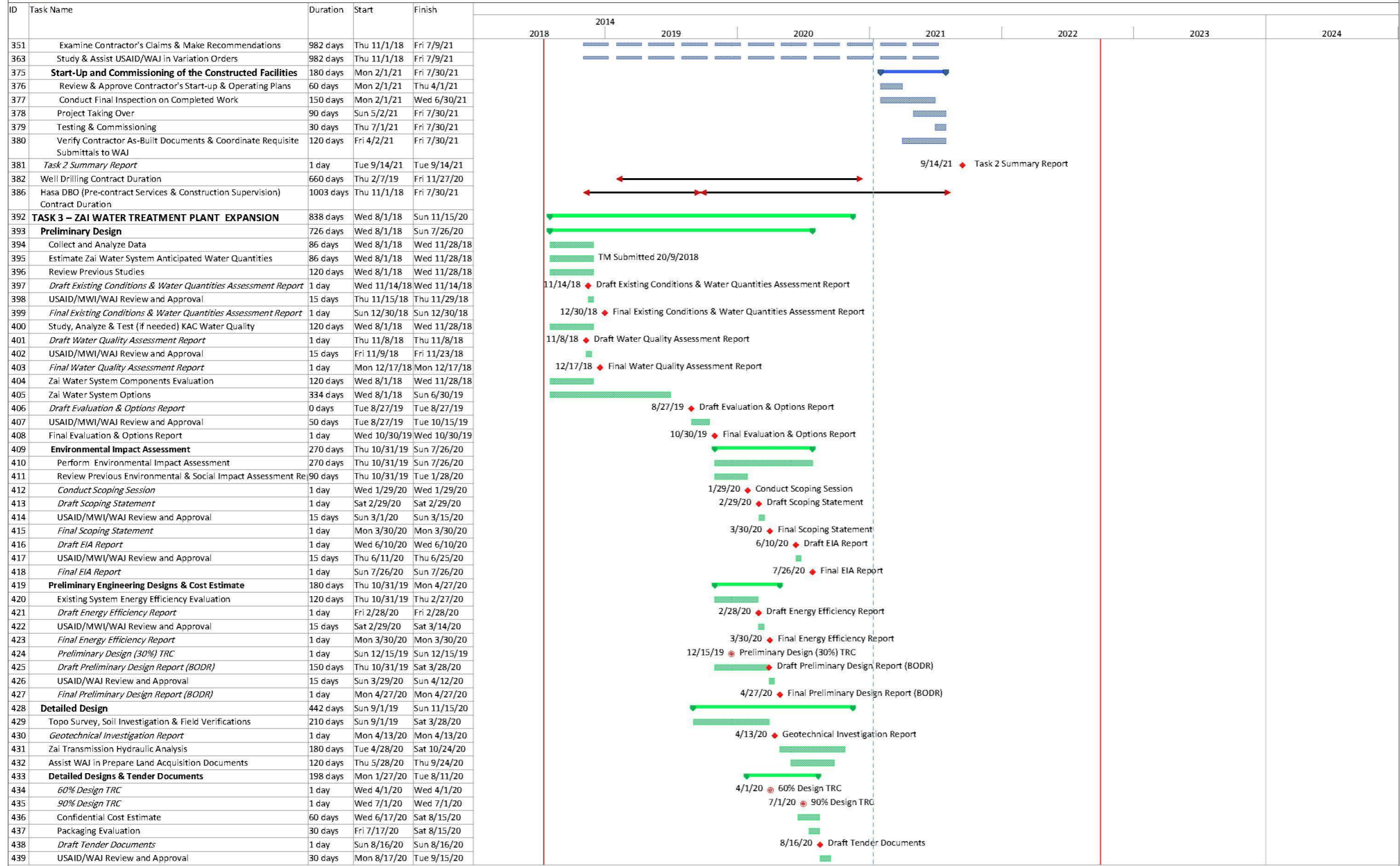
Legend:
TRC: Technical Review Committee
PQM: Project Quality Management

Task Order Signed: July 15 2018
Tasks 3, 4 & 5 Start Date: Aug. 1 2018
Task 6 Start Date: Nov. 1 2018
Task 1 Start Date: Mar. 18 2019
Task 9 Option Exercised Feb. 14 2019
Task 7 Start Date: Dec. 09 2019
Project End Date: Sep. 30 2022



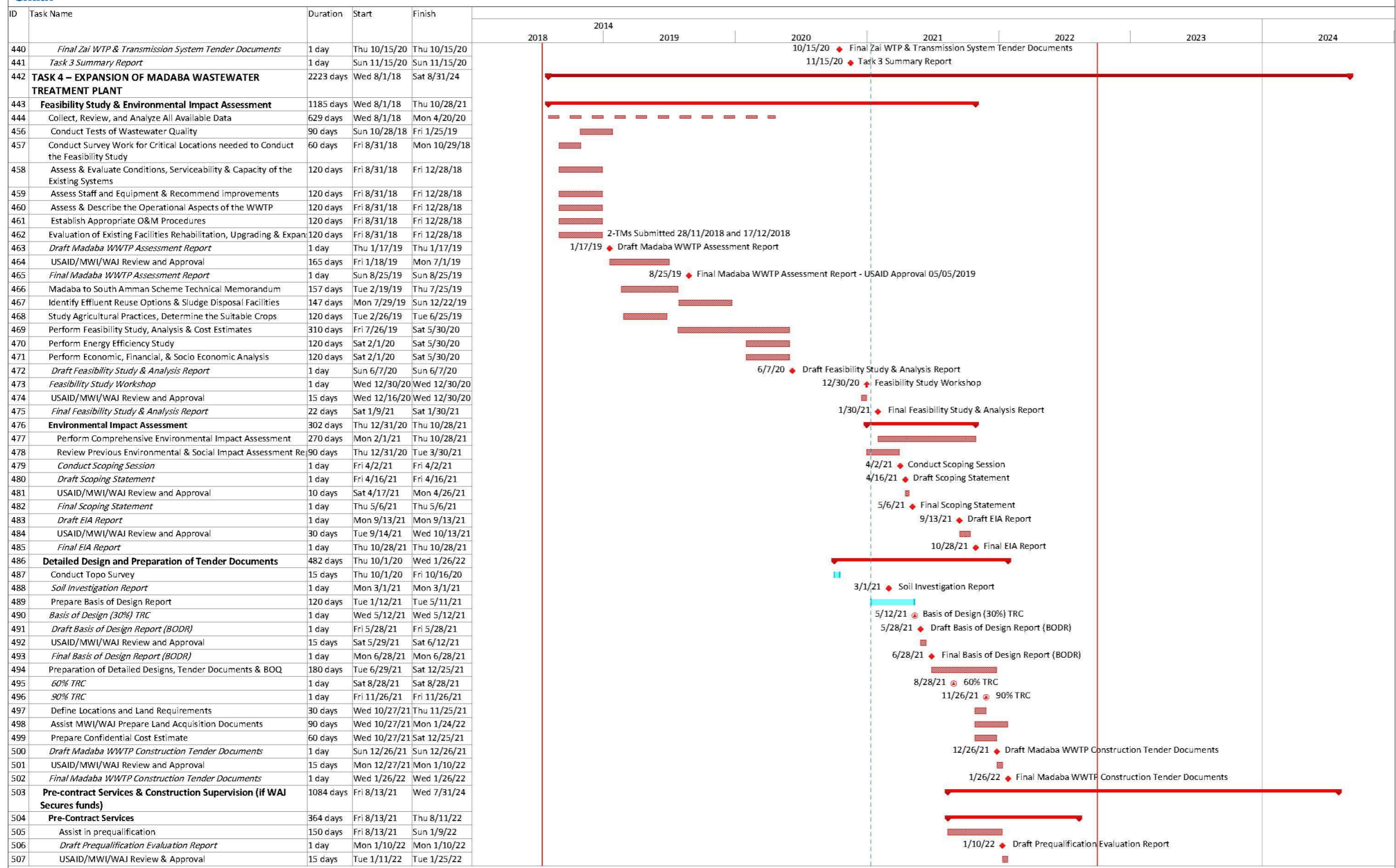
Legend:
TRC: Technical Review Committee
PQM: Project Quality Management

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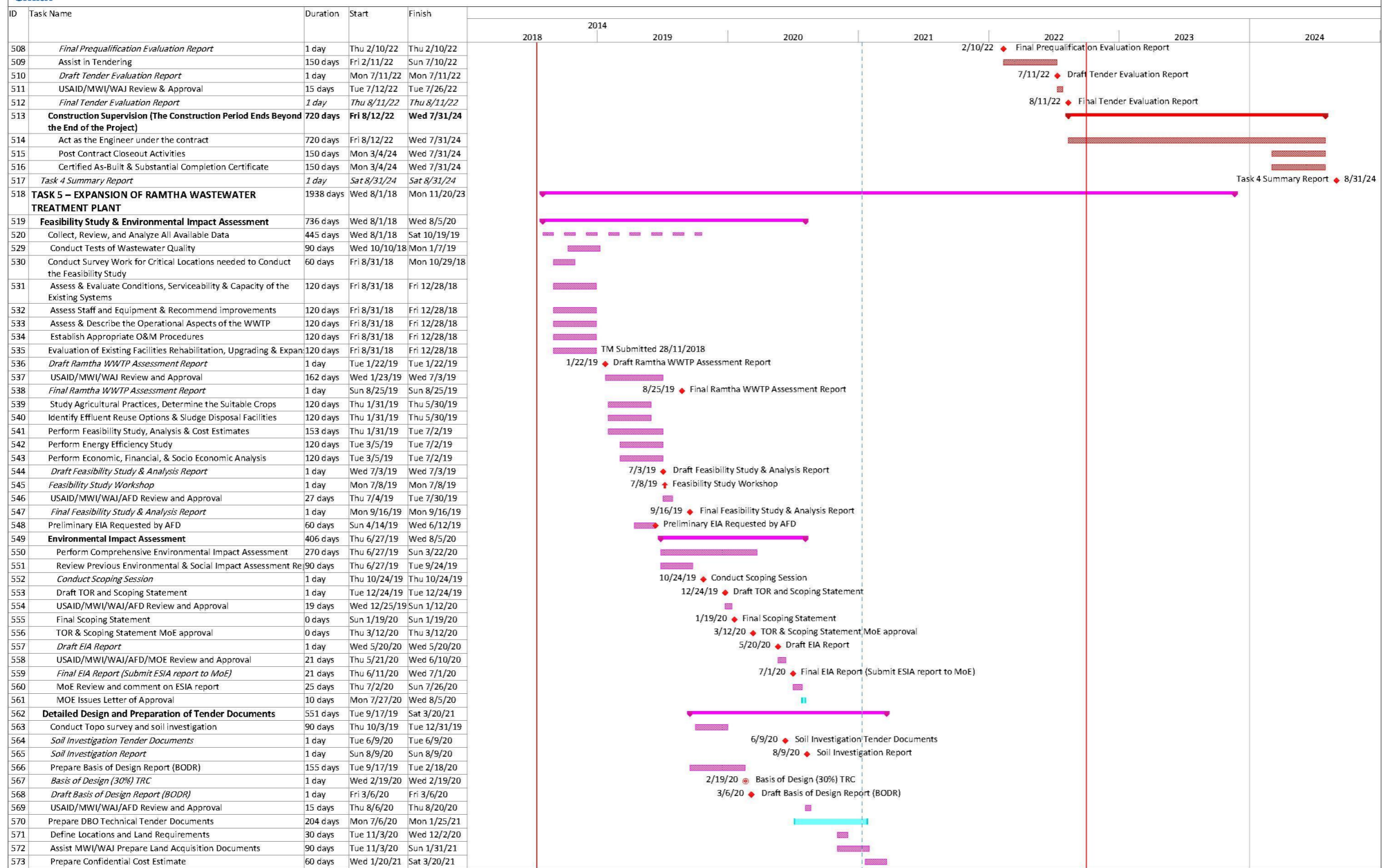
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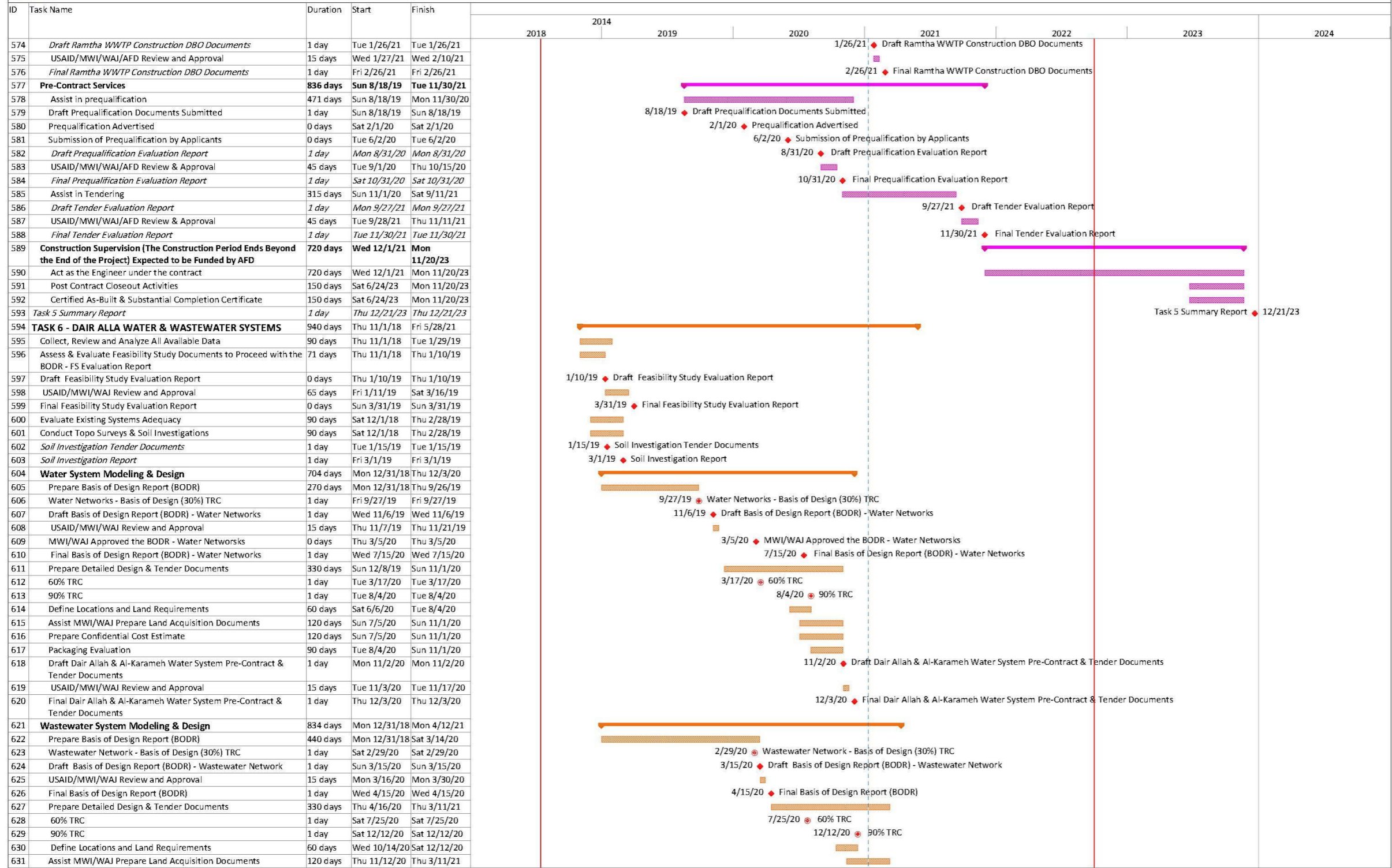
USAID Jordan Water Infrastructure

Work plan / Schedule



Legend:
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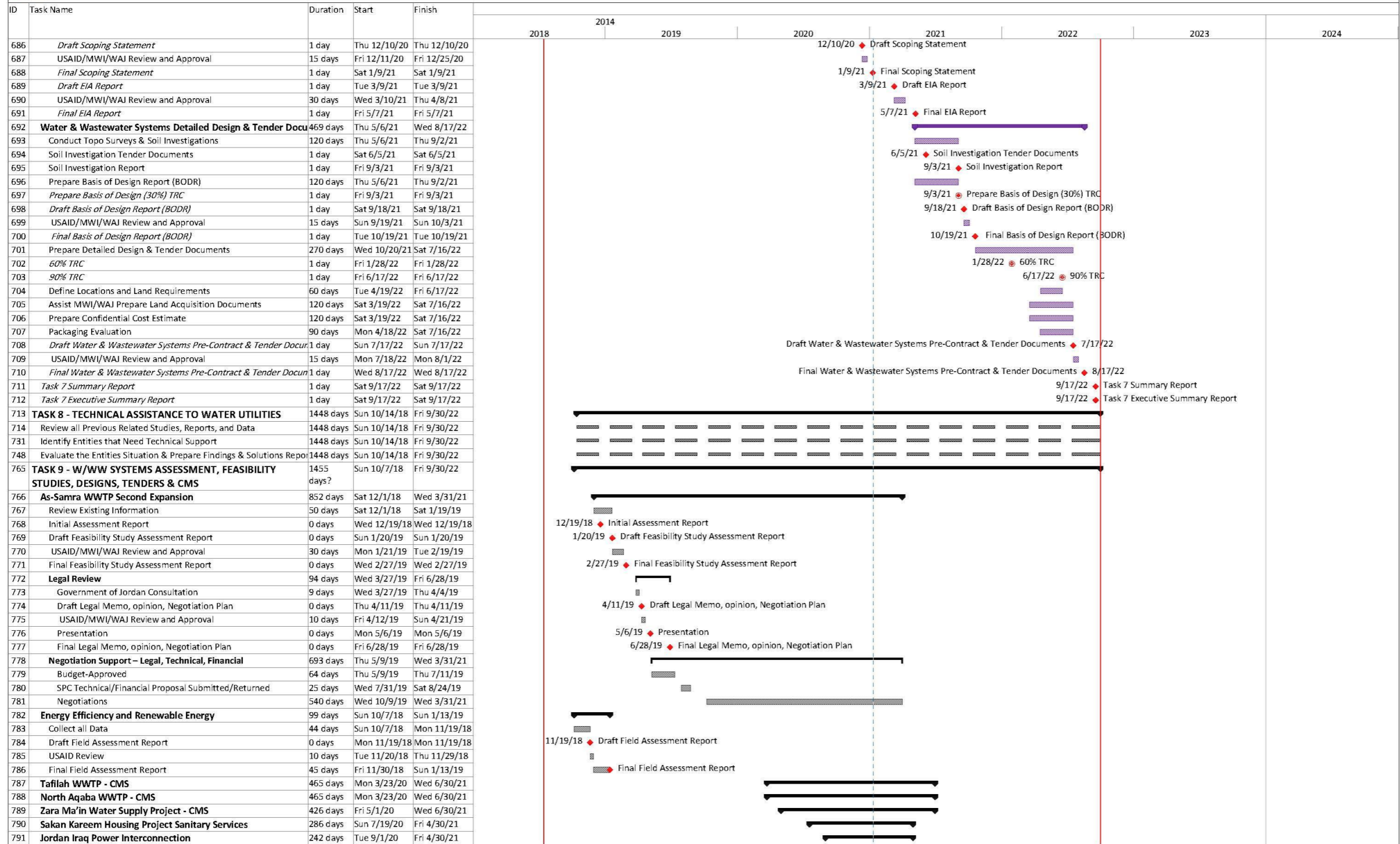
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