

INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

Report No.: ISDSC1013

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I. BASIC INFORMATION

A. Basic Project Data

Country:	Iraq	Project ID:	P150409
Project Name:	Baghdad Water and Sewerage Improvement Project (P150409)		
Task Team Leader(s):	Caroline van den Berg		
Estimated Appraisal Date:	13-Oct-2015	Estimated Board Date:	07-Jul-2016
Managing Unit:	GWA05	Lending Instrument:	Investment Project Financing
Sector(s):	Water supply (60%), Wastewater Collection and Transportation (35%), Public administration- Water, sanitation and flood protection (3 %), Sub-national government administration (2%)		
Theme(s):	City-wide Infrastructure and Service Delivery (95%), Municipal governance and institution building (5%)		
Financing (In USD Million)			
Total Project Cost:	210.00	Total Bank Financing:	210.00
Financing Gap:	0.00		
Financing Source		Amount	
Borrower		0.00	
International Bank for Reconstruction and Development		210.00	
Total		210.00	
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

B. Project Objectives

The Project Development Objective (PDO) of BWSIP is to improve the quality of water and sewerage services in Baghdad. The Project will support improvements in high-priority and high-impact areas.

C. Project Description

The proposed project will support improvements in high-priority water and wastewater services that were identified during the implementation of the Emergency Baghdad Water and Sanitation Project and a 2012 JICA funded assessment study of Baghdad's water and sanitation infrastructure. This assessment concluded that these projects are still urgently needed as they aim to improve the quality of service delivery. While the Emergency Baghdad Water and Sanitation Project (closed in 2013) focused on the rehabilitation and reconstruction of the water distribution and sewage collection systems, this project will focus on the rehabilitation and construction of major water and sewage pumping stations and treatment facilities that will improve the quality of the services. The project will construct works to use the current production capacity more efficiently.

Component 1: Investments in Urban Water Infrastructure (USD 123 million)

Expansion and Upgrading of the Al Dora Water Treatment Plant (estimated cost USD 50 million): Al Dora area is located in Al Karkh side south of Baghdad, with a population of approximately 500,000, expected to increase to 700,000 people by 2030. The existing water treatment plant (WTP) capacity of 5,000 m³/hour was constructed in 1983. The current system provides services to only 225,000 people. The remaining population is served by a neighboring system in Al Rasheed municipality affecting the quality of the service of that system, which is now characterized by low pressure and low flows. To ensure that the water services can be improved in Al Dora and Al Rasheed, the Al Dora water treatment plant, which has a current maximum (summertime) abstraction rate of 112,000m³/day, will be expanded to 264,000-360,000 m³/day. The MOB has recently bought the land adjacent to the current WTP. The existing and the recently purchased land is sufficient for the expansion of the water treatment plant and has been determined to have no involuntary resettlement issues. Detailed designs are not yet available. MOB will hire a consultancy firm to finalize the designs and bidding document during the project preparation process.

Construction of the Baghdad reservoir complex R2 (estimated cost USD73 million): Baghdad city is mostly flat and does not require a sophisticated form of pressure management. The poor zoning of the existing system combined with limited conveyance capacity and lack of storage reservoir capacity and booster stations complicates the operation of the system and has a significant impact on service pressures (high pressure at source supplying remote areas and large pressure variations due to direct pumping from the network). Building the R2 complex will help eliminate direct pumping into the distribution network which currently generates high pressure variations. This investment will also provide sufficient storage capacity in case of power cuts or maintenance time. This is one of the storage reservoirs that were planned to be constructed in Baghdad as part of the water master plan that was prepared in the early eighties. This investment will ensure improved quality and reliability of the water supply services in the area served by the reservoir complex, which will serve more than 550,000 people in the Al Sha'ab Municipality of Baghdad (expected to increase to 750,000 people in 2030). The construction of this reservoir complex will also benefit the larger Baghdad water supply system as it will alleviate pressure on adjacent pressure zones, and hence benefit people living in areas adjacent to the R2 reservoir complex with improvements in the reliability of their services.

R2 has a total storage capacity of 150,000m³ of potable water, which will serve as either equalizing or operating storage. The dimension of R2 is to be 140.0 by 163.2 meters. The Water tank will be constructed 5.2m below the ground and the cover slab has a 3.4m above the finished ground level. The reservoir is a reinforced concrete structure, with two main compartments separated variable thickness divider wall. The reservoir has one inlet and outlet connected to the tank body. Other else, the reservoir is totally separated from other structures. Also to be built on this site is the following:

(a) The storage reservoir with inlet and outlet chambers; (b) pumping station with administration facilities building; (c) electric and generating station building; (d) chlorination building; (e) Guard house; (f) 4 flats housing building; (g) water service tank building; (h) Bulk fuel tank storage building; and (i) Fence and main entrance. The location is in a peripheral urban area, and as such has no flora or fauna of note. Chlorine residual will be monitored on-site 24 hours/day. Other water quality parameters will be tested at a nearby Baghdad Water Authority WTP. Land for this complex is available and owned by the MOB and is currently used for parking by a neighboring university. As such, an Abbreviated Resettlement Action Plan (ARAP), will be prepared for R2. The preliminary designs have been completed and were reviewed by the MOB, final designs are to be completed during implementation.

Component 2: Investments in Urban Wastewater Infrastructure (USD 75 million)

This component includes upgrading sewage pumping stations of different sizes, different ranges and in different locations in Baghdad. The main benefit of this component is that it would complete the original design of safe wastewater disposal and would eliminate dumping untreated sewage into the river or in open areas. A significant amount of untreated sewage is currently discharged to the river or into an open-drainage area close to homes, causing environmental and health hazards.

Upgrading of the Al Dora Sewerage Pumping Station (DPS) (estimated costs of USD 45 million): this is the main pumping station in the northern area of Tigris river, Al Karkh area, the DPS pump the sewage collected to Al Karkh sewerage treatment plant (of the 405,000 m³/day capacity, only 200,000 m³/day is currently operational while 205,000 m³/day is currently under rehabilitation). The pumping station was constructed in 1980s. It consists of 13 vertical sewerage pumps (330 V & 400 V) with a design capacity of about 13.5 m³/sec. An assessment of the current sewer pumping station (funded under the JICA loan) concluded that this pumping station requires replacement of all mechanical and electrical equipment, control system, and civil/structure reinforcement.

Upgrading of the Al Habibiya sewerage pumping station (estimated costs of USD 20 million): constructed in 1984 with a design capacity of 11 m³/sec. The BOQs have been recently updated by the design department in the Baghdad Sewerage Directorate. The pumping station transfers the sewage to Al-Rustomiya wastewater treatment plant.

Rehabilitation of sewage pumping stations in Rusafa area (estimated costs of USD 10 million): there are 22 sewerage pumping stations that need full rehabilitation, these pumping stations are of different capacity, and mainly includes lifting and pumping stations.

The population expected to benefit from these improvements in the sewage pumping stations is estimated at 5 million people.

Component 3: Institutional Strengthening and Capacity Building Component (USD 10 million)

This component aims to improve the performance and efficiency of the MOB but more specifically the Baghdad Water Authority (BWA) and Baghdad Sewerage Directorate (BSD) to operate and manage their infrastructure systems. This component will include:

- Assistance to MOB in developing infrastructure investment plans supported by the introduction or improvement of information systems;
- Strengthening water and sewerage asset management capacity at both BWA and BSD and the

municipalities;

- Strengthening social accountability measures to improve customer-responsiveness and improve other feedback mechanisms on BWA and BSD's performance;
- Technical assistance in utility management (including but not limited to improving billing and collection systems, tariff policy development and financial management);
- Strengthening project preparation/implementation with emphasis on planning, studies, design and contract management's capacity.

Component 4: Project Implementation and Monitoring Component (estimated costs of USD 2 million)

This component will finance the operational costs of the Project Management Team to coordinate, implement, supervise and monitor the project.

Component 5: Contingent Emergency Response (US\$0 million)

The project will include a fifth Component to enable flexible project design in a high risk environment. Following an adverse natural or man-made event that causes a major disaster, the Government may request the Bank to re-allocate project funds to this component (which presently carries a zero allocation to support response and reconstruction.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Project interventions are spread across Baghdad, the capital city. The identified areas at this stage of preparation includes the following areas: (1) Al Doha area, located in Al Karkh side, south of Baghdad; (2) Al Rasheed, also located in the south of Baghdad; as well as (3) Al Dora, Al Habibiya and Rusafa, all located in the north of Baghdad. The physical locations and site characteristics of the 22 sewerage pumping stations to be rehabilitated are in Rusafa and are all identified.

E. Borrowers Institutional Capacity for Safeguard Policies

The overall responsibility for the project lies with the Mayoralty of Baghdad (MOB). The proposed management structure for the project incorporates lessons learned from the implementation of the Emergency Baghdad Water Supply and Sanitation Project (EBWSSP) that was approved in 2004. In that project, a Project Management Team (PMT) was set up at the MOB level. In this newly proposed project, the day to day management of the implementation of this project (including safeguards implementation), will be the responsibility of the Baghdad Water Authority (BWA) and the Baghdad Sewerage Directorate (BSD). Project implementation teams (PITs) in BSD and BWA will be established. The PITs will be supported by the PMT at MOB level. The PMT will continue to be responsible for overall project coordination, including safeguards implementation, monitoring and reporting.

Current safeguards capacity in the MOB (including BSD and BWA) is weak. All recent sectoral interventions in this sector were emergency projects, with safeguards guidance provided by an Emergency and Social Screening Assessment Framework (ESSAF). Project design will include a more detailed assessment of existing capacity in the MOB and its PMT. Both institutional actors have benefited from extensive training on environmental and social safeguards. However, much of that training was during project preparation and the initial year of project implementation (the mid-2000s), and will have to be extended to BSD and BWA operating the systems. Subsequently, there has been both staff turnover and changes in the safeguards modality (e.g. from ESSAF to ESIA/

ESMP and ESMF). It is expected that governmental capacity will need to be augmented by technical consultants in the safeguards design phase. The Project team will also benefit from support and guidance from the Bank environmental and social team members.

F. Environmental and Social Safeguards Specialists on the Team

Ibrahim Ismail Mohammed Basalamah (GSURR)

John R. Butler (GSURR)

Tracy Hart (GENDR)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>This project is categorized as "B" due to potential adverse environmental and social impacts which are site-specific and reversible; thus easily remediable by applying appropriate mitigation measures. These potential adverse environmental impacts may include the following: air quality and noise; construction debris, including old piping and sewerage infrastructure requiring proper disposal; employee health and safety issues; vehicular and pedestrian traffic disruptions; disruptions in water supply; and risk of water contamination in the existing system.</p> <p>In order to identify risks, impacts, and mitigation measures, two Environmental and Social Impact Assessment (ESIAs), each to include an Environmental and Social Management Plans (ESMP), will be prepared for (a) Baghdad reservoir complex R2 (construction); and (b) Al Dora and Al Habibiya Sewerage Pumping Stations (upgrading). An ESIA, to include an Environmental and Social Management Framework (ESMF), will be prepared for Al Dora Water Treatment Plant (expansion and upgrading); and a generic ESMP will be prepared for the 22 sewerage pumping stations in Rusafa.</p> <p>An ESIA, to include a detailed ESMP, will be prepared for each of Al Dora WTP. An Environmental and Social Management Framework (ESMF) will be prepared for the storage reservoir R2. An ESMF will be prepared for Al Dora and Alhabibiya sewerage pumping station interventions as well as the 22 smaller sewerage pumping stations in Rusafa. Al Dora and Alhabibiya sewerage</p>

		pumping stations will have site-specific EMPs. These environmental safeguards instruments, including Executive Summaries in English and Arabic, will be disclosed in-country and at the Bank's Infoshop prior to appraisal.
Natural Habitats OP/BP 4.04	No	This policy is not triggered.
Forests OP/BP 4.36	No	This policy is not triggered.
Pest Management OP 4.09	No	This policy is not triggered.
Physical Cultural Resources OP/BP 4.11	No	All of the sewerage pumping sites are rehabilitation work only. On-the-ground assessment of Al Dora WTP expansion area and the R2 reservoir complex indicates that those two locations have had residential use and do not have physical cultural resources.
Indigenous Peoples OP/BP 4.10	No	There are no indigenous peoples in the service area.
Involuntary Resettlement OP/BP 4.12	Yes	Although the R2 site is owned by the MOB, it is currently illegally managed by an individual for the paid parking of cars for those teaching at and attending the university nearby. An Abbreviated Resettlement Action Plan (ARAP) will be prepared for the project to provide resettlement and compensation guidance for the R2 site during implementation. The ARAP will be disclosed in-country and at the Infoshop prior to appraisal.
Safety of Dams OP/BP 4.37	No	This policy is not triggered.
Projects on International Waterways OP/BP 7.50	Yes	This project has requested an exception to OP 7.50 notification based in the minor addition to the existing Al Dora WTP as well as the upgrading of that same plant. The project involves rehabilitation and upgrading of existing water and wastewater infrastructure. The implementation of the project will result in a marginal increase in water intake from the Tigris River from the Al-Dora Water Treatment Plant which currently produces less than 4 percent of drinking water in the city. There will be no measurable effect on river water quality or quantity at the point of intake from the river, and therefore no transboundary impacts. In addition, because of the rehabilitation of wastewater pumping stations, more of the wastewater generated in the city will be treated and properly disposed into the river

		and hence the combined effect of these investments will be positive. As such, the project (i) will not adversely affect the quality and quantity of water flows to the other riparians; and (ii) will not be adversely affected by the other riparians' water use.
Projects in Disputed Areas OP/ BP 7.60	No	The sites and service area are within the confines of the Mayoralty of Baghdad, and therefore the policy is not triggered.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 15-Jan-2016

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing¹ should be specified in the PAD-stage ISDS:

Two Environmental and Social Impact Assessment (ESIAs), each to include an Environmental and Social Management Plans (ESMP), will be prepared for (a) Baghdad reservoir complex R2 (construction); and (b) Al Dora and Al Habibiya Sewerage Pumping Stations (upgrading). An ESIA, to include an Environmental and Social Management Framework (ESMF), will be prepared for Al Dora Water Treatment Plant (expansion and upgrading); and a generic ESMP will be prepared for the 22 sewerage pumping stations in Rusafa. An ARAP will be prepared for R2. These environmental and social safeguards instruments, including Executive Summaries in English and Arabic, will be disclosed in-country and at the Bank's Infoshop prior to appraisal.

IV. APPROVALS

Task Team Leader(s):	Name: Caroline van den Berg	
<i>Approved By:</i>		
Regional Safeguards Advisor:	Name: Francis V. Fragano (RSA)	Date: 17-Aug-2015
Practice Manager/ Manager:	Name: Jonathan S. Kamkwala (PMGR)	Date: 17-Aug-2015

¹ Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.