

Session 10c: Site-Visit Exercise

PART I: THE SCENARIO

In the field you will visit the Jerash Wastewater Treatment Plant, which will be similar to the project your Technical Team Lead (if USAID) or COP (if IP) has advocated for in the Yarmouk Basin.

Your Team Lead/COP just informed you that next week's meeting to discuss the environmental and climate risks of the proposed projects, and the environmental compliance and CRM implications thereof, will actually have to be pushed up to this afternoon; a delegation from Washington will be coming in tomorrow, and will demand the Team Lead's/COP's full attention. However, your findings must be submitted next week, and the Team Lead/COP will need to first discuss your analysis!

You thus only have 2.5 hours to prepare before your 10 minute meeting briefing!

PART II: PROJECT PURPOSE AND NEED

Irbid Governate Wastewater Treatment Plant

Challenged with aging water distribution and sewerage infrastructure, exacerbated by an influx of migrants and refugees in the wake of the conflict in Syria, the water quality in the Irbid Governate faces significant challenges.

With the already old existing facilities straining to accommodate the increase in population, USAID has worked with Jordan's Ministry of Water and Irrigation to identify areas to construct new wastewater treatment facilities in the Irbid Governate. Because of the success of the project in East Jerash, USAID and the Ministry agreed to adopt a similar design for the new wastewater treatment facility.

The proposed site for the construction is a few kilometers west of Irbid city in an effort to improve the growing city's ability to manage wastewater both now and into the future (see Figure 1).

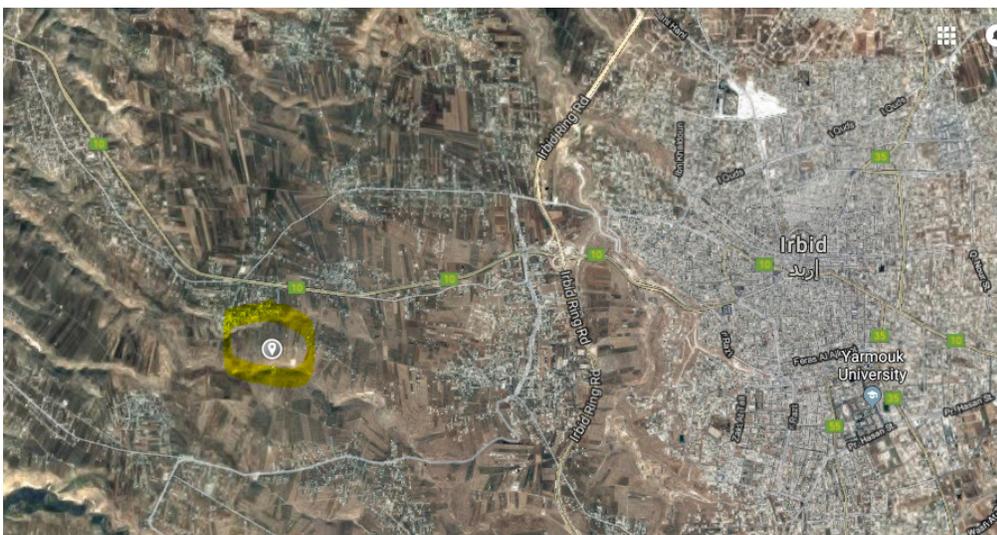


Figure 1 Proposed Site of Wastewater Treatment Facility

PART III: SITE OVERVIEW

LOCATION: The site about 5 km west of Irbid city, within the Lower Jordan Basin. This sits just west of the Jordanian-Syrian border and directly along the Israeli-Jordanian border. The proposed site sits a bit upstream of where the Yarmouk River joins the Jordan River, and to the southeast of Lake Tiberias.

GEOGRAPHIC CONDITIONS: The Yarmouk Basin features mountainous plateaus comprised of basaltic rock in the western region, while the eastern steppe features expansive plains. The official catchment boundary is defined by Golan Heights in the west and the Jabal al Arab Mountains in the east. The nearby Yarmouk Nature Reserve is 20km² in size, situated in the western region of the basin and characterized by mountains covered with deciduous oak trees, at elevations reaching up to 500 m above sea level. Water runoff and erosion from the adjacent Yarmouk River have formed small and medium valleys, which flow down towards the river. The water that is accessible from the site location originates from water sources in Jordan and in the eastern Golan in Syria. The Yarmouk River formulates approximately 49 km of the Jordanian-Syrian border and runs along the Israeli-Jordanian border prior to adjoining the Jordan River, south of Lake Tiberias.

CLIMATE: Given its relatively small size, there is a fair amount of climate variability across the Jordan River Basin, creating numerous microclimates. The region is predominantly semi-arid, with average temperatures exceeding 26°C. Precipitation varies substantially, with northern areas at times receiving more than 1,000 mm of rainfall annually, while southern and eastern regions of the basin can receive as little as 100 mm. The Yarmouk Nature Reserve typically receives 400 mm of rainfall annually. The majority of precipitation is concentrated in the winter months, from November through March.

LAND USE: Natural forests and open areas comprise roughly 60 percent of the Jordan River Basin. The Irbid Governate is heavily agrarian, and commonly cultivated crops include olives, fruits, nuts and wheat. The basin's agricultural activities range from rain-fed olive groves, orchards, and vineyards in the higher elevation to field crops (wheat and rain-fed vegetables in the Irbid area), to irrigated vegetables, citrus, and bananas in the vicinity of the Yarmouk River and the northern Jordan Valley.

There may be need for improved land policy to help manage urban expansion from extending onto the settled plateau landscape unit and the cultivated and rangelands plateau unit. Otherwise, the area of the agricultural activity would decrease considerably, as would groundwater recharge. Additionally, conservation of the forested upland may be strengthened via increased designation of conservation area to protect from further construction or industrial activity.

WATER USE: Water is diverted from the Yarmouk River and used for irrigation of crops in the Irbid Governate. Overall, the water quality in the Lower Jordan River Basin is very low. Water diversion projects exacerbate water scarcity concerns, which are prevalent throughout the country. High population growth, the depletion of groundwater reserves and the impacts of climate change are likely to further aggravate the situation in the future.

In Jordan, the increase in water demand, in addition to water shortage has led to growing interest in wastewater reuse. There are wastewater treatment plants in Irbid, Amman, Al Baqa as well as other locations, though the Government of Jordan has been seeking to revitalize, improve wastewater management infrastructure throughout the country.

DEMOGRAPHICS: Communities in the Basin are predominantly agrarian oriented; Agriculture is a focal point of the economy comprising more than 80 percent of the region's GDP and more than 40 percent of cultivated crops are exported.

Education: Ninety nine percent of Jordanians ages 15-24 are literate, and 88 percent have received secondary school educations.

Unemployment: Between the years 2005 and 2017, the average unemployment rate was 13.4 percent. As of the third and fourth quarters of 2017, Jordan's unemployment rate was 18.8 percent.

Population Growth: Jordan is currently experiencing rapid population growth with an annual growth rate of 2.2 percent. Irbid is the third most densely populated region of Jordan, after Amman and Zarqa respectively. The population of Irbid city sits at ~500,000 people, while the population of the entire Governate is ~1.77 million people, more than doubling over the past 25 years.

PART IV: THE EXERCISE

Working in your groups:

1. Define the "Actions" that will be undertaken, corresponding the activity, informed by the site you visit Tuesday afternoon.
2. Using the CRM screening table template provided, spend **up to 1 hour** preparing a preliminary CRM screening table.

*Because time is so limited, you will not have time to complete an entire CRM screening table. **Instead focus on completing one or two rows in their entirety** for the risks your group considers to be of highest concern.*

3. Define key environmental impacts, determine the applicable environmental threshold decision, and articulate all corresponding environmental compliance requirements. Briefly elaborate how the environmental impacts, and associated ETD, identified will translate to each corresponding requirement identified.

As with the CRM table, you will only have time to highlight a selection of the environmental impacts that the proposed project could introduce. The environmental impacts identified should reflect those of greatest significant in the estimation of your group, and should be sufficient to establish the ETD you identify.

Based on the ETD you identify, you should be able to describe what the subsequent requirement(s) is/are and, for each requirement, briefly describe or illustrate how the environmental impacts you highlighted will be treated.

For example, if you determine that the ETD should be Negative Determination with Conditions, then describe the appropriate next steps regarding environmental compliance documentation, and responsibilities for both USAID staff and implementing partners. If you determine that the ETD should be Positive Determination, describe the required environmental impact assessment process requirements and corresponding environmental compliance documentation, and the required areas of expertise for ensuring appropriate consideration of key environmental issues, and the environmental issues of greatest importance.

Based on the ETD you identify, you should be able to describe what the subsequent requirement(s) is/are and, for each requirement, briefly describe or illustrate how the environmental impacts you highlighted will be treated.