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Asia Water Forum 2022

8–11 August 2022 • Online

Focus Area: Universal Water and Sanitation Services

Session Title: Sector Capacity and Stakeholder Engagement

Schedule: 11 August 2022 | 9:00-10:30am



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Namangan Wastewater Treatment Plant – First water and wastewater PPP Project in Uzbekistan

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The Water and Wastewater Value Chain

**Bulk Water Supply
incl. Pipeline**

- Water source, either a well or reservoir combined with bulk water transmission.
- Typically, availability payment funded.
- PPP can be applied to bulk water supply where possible.

**Water Treatment Plant
(WTP)**

- Water treatment facility for surface water to be supplied to the distribution utility.
- Typically, availability payment funded.
- PPP can be applied to WTP where possible.

Water Distribution

- Distribution activities typically undertaken by the utility; this is complex for PPP because of customer interface.
- PPP structures through management contracts, affermage or concession structures. Management contracts may be considered as PPP.

**Wastewater Collection
and Conveyance**

**Wastewater
Treatment Plant
(WWTP)**

- WWTPs typically are good cases for PPP
- They are identifiable assets that can be separately financed from the network.
- PPP be applied to WWTPs where possible



Namangan WWTP PPP Project – The Rationale

The Project (a new 100MLD wastewater treatment plant and a new 7.5km effluent discharge pipeline) is intended to solve the problem of untreated influent being discharged into the Syr-Darya River



The provision of international-standard wastewater treatment services to Namangan City and its surrounding districts is an immediate and urgent need that must be addressed.



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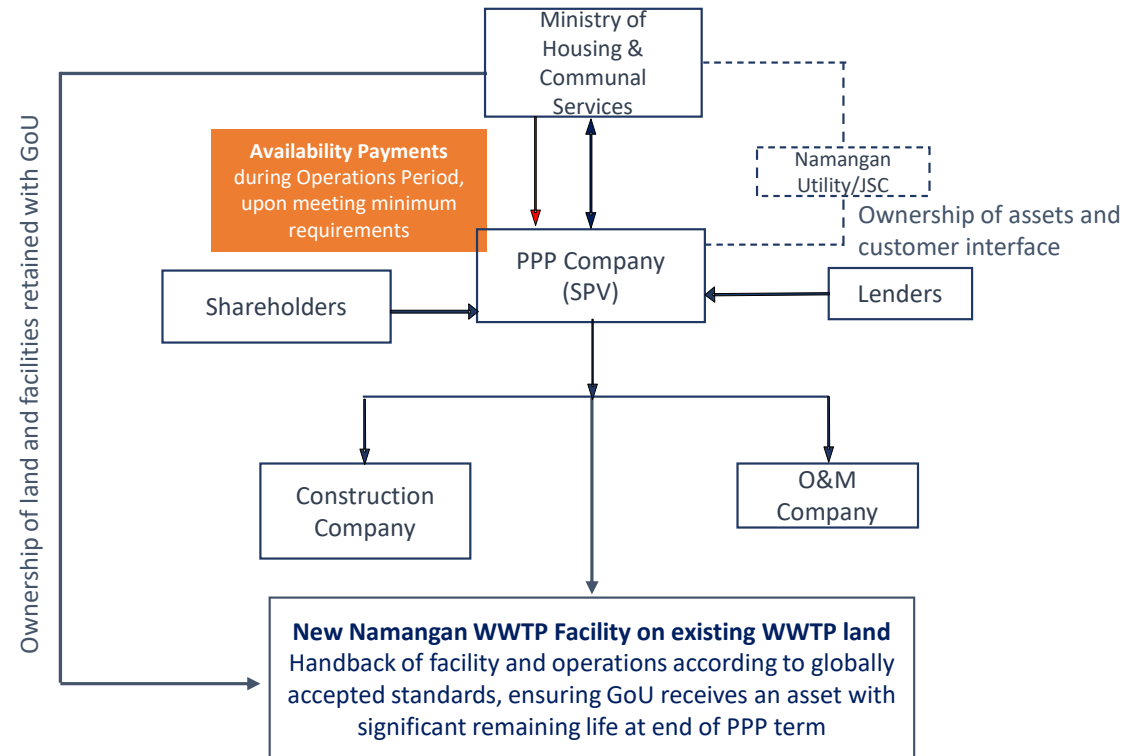
Namangan WWTP PPP Project- Background



- The Project catchment area includes Namangan City, Namangan District and 5 adjoining districts and a potential service area of up to 1.8 million inhabitants subject to improvements in the sewerage network and increase in connections to be undertaken by the Government.
- The existing site is approx. 21 Ha in total. Out of the total, a land area of 6.1 hectares adjacent to the existing WWTP facility has been identified and will be made available for the Project.

PPP Structure and Key Parties

- The traditional PPP structure - **Design, Build, Finance, Operate & Maintain structure (DBFOM)**
- **PPP agreement for 100MLD WWTP** provides the **enabling framework for future expansion** of the WWTP
- **Available Project site** with defined catchment area
- **Republic of Uzbekistan as ultimate counterparty**
- **Service Payments** consist of (i) **fixed capacity payments**, and (ii) **volume payments** with **no demand and tariff collection risk taken by the private partner**.



Best practice **termination and indexation** provisions



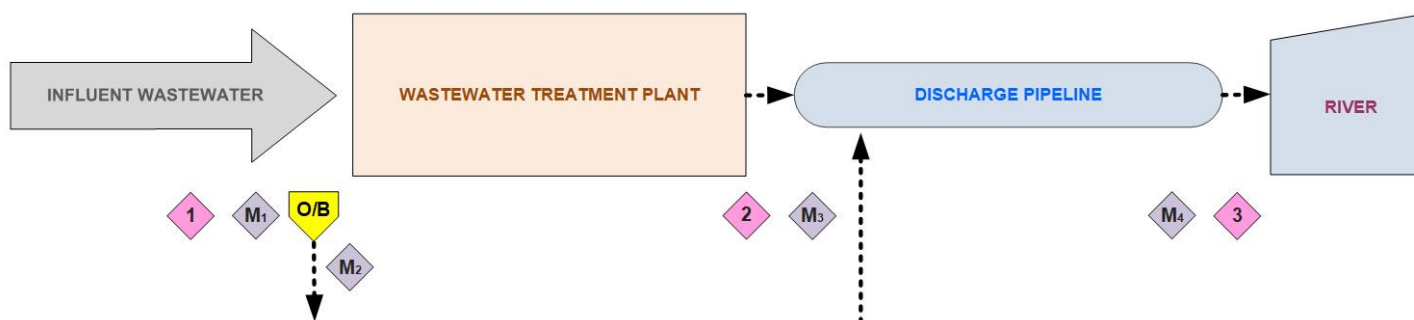
Technical Schematic

NAMANGAN WASTEWATER TREATMENT PLANT

OPERATIONAL RESPONSIBILITY



FLOW SCHEMATIC



OVERFLOW/BYPASS



Any volume of influent wastewater that exceeds the hydraulic capacity of the WWTP or does not comply with the specified influent quality parameters and is rejected by the private partner.

WASTEWATER QUANTITY MEASUREMENT



Flow meters to measure (1) influent, (2) flow in overflow/bypass, (3) treated effluent at the WWTP outlet and (4) discharge to the river. Actual meter numbers will depend on pipe configuration and metering for payment purposes.

WASTEWATER QUALITY MEASUREMENT



Prior to the inlet works of the WWTP to monitor for compliance with the project specification for influent quality that will incorporate limits for industrial dischargers to the sewer network.



At the outlet of the WWTP to monitor for compliance with the project specification for effluent quality. This will be the compliance point for the private partner.



At the discharge to the river to monitor the quality of effluent that would include any overflow and out of specification influent that has bypassed the treatment plant. This will be at the discretion of the public partner and has no bearing on the PPP.

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Thank You

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