



## Metro Manila Wastewater Management Project (P113844)

EAST ASIA AND PACIFIC | Philippines | Water Global Practice |  
IBRD/IDA | Investment Project Financing | FY 2012 | Seq No: 15 | ARCHIVED on 17-Sep-2019 | ISR38405 |

Implementing Agencies: Land Bank of the Philippines, Maynilad Water Services, Manila Water

### Key Dates

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Bank Approval Date: 15-May-2012	Effectiveness Date: 19-Oct-2012
Planned Mid Term Review Date: 22-Jan-2014	Actual Mid-Term Review Date: 30-Jan-2014
Original Closing Date: 30-Jun-2017	Revised Closing Date: 30-Jun-2020

### Project Development Objectives

Project Development Objective (from Project Appraisal Document)

To improve wastewater services in selected sub-catchments of Metro Manila and surrounding areas.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

### Components

Name

Investments in Wastewater Services by MWCI:(Cost \$193.42 M)  
Investments in Wastewater Services by Maynilad:(Cost \$178.33 M)

### Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	● Moderately Unsatisfactory	● Moderately Satisfactory
Overall Implementation Progress (IP)	● Moderately Unsatisfactory	● Moderately Satisfactory
Overall Risk Rating	● Substantial	● Substantial

### Implementation Status and Key Decisions

The MWMP was approved on May 15, 2012, a loan of US\$275 million that became effective on October 19, 2012. The project was originally scheduled to close on June 30, 2017 but was extended for two (2) years in 2016 and an additional one (1) year in 2019. The project restructuring approved the revised closing date on June 30, 2020 that includes the replacement subprojects for MWCI that will be fully be funded under the project.

*Implementation Progress.* Overall physical accomplishment to date is 78%, with MWCI at 70.76% and MWSI at 84.98%.

For MWCI, In the past 6-months, the construction of Ilugin STP has progressed from 75% to 86% in terms of earned value (EV) and it is expected to be physically completed by November 2019. Sewer networks contracts for the Ilugin sewer system progressed from 50% to 58% in terms of earned value which is about 68% in terms of total length. Progress is still limited by the restriction of the LGU on road excavations and the past election moratorium. MWCI recently met with the newly elected Mayor of Pasig to discuss progress of the MWCI's programs in the city and to request for additional construction headings for the sewer network. Meanwhile for the two additional sewer systems (*i.e.* UP and Marikina), five of the seven



contract packages were completed while two are on-going. Of which, the UP Phase 2C contract is physically completed but awaiting power supply connection from the power utility (MERALCO); while UP Phase 2D contract faced construction delays due to restrictions inside a private development (UP Technohub) on construction hours. Agreement on work hours have been finalized with the private developer so that the contract is expected to be completed by December 2019. Marikina sewer system contracts were all physically completed by September 2018 and are now delivering project benefits.

For MWSI, the construction of the STPs has progressed from 83.4% to 84.98% in the past six-months. Four of the seven STPs are 100% completed and the three remaining STPs are in advanced stages of construction. In Cupang STP, all structures are completed and 90% of equipment are already on-site for installation. Pre-commissioning is slated for September 2019 and full completion is scheduled for November 14, 2019. However, the completion of the last 90-meters of effluent pipeline is delayed due to permitting issues. That segment of the pipeline is situated on a busy portion of the area's only main road. MWSI recently met with the barangay to discuss the traffic management plan; and aims to secure the permit by August 15, 2019 to complete the activity before the targeted commissioning in September 2019. The effluent pipeline is crucial as the facility cannot fully operate without it. Tunasan STP is 77.63% physically completed with remaining works mainly at the head works and influent pump station (IPS). The very soft soil and the heavy water infiltration due to the presence of a creek across the property boundary caused accumulating delays. Aside from the said two structures, all others are at over 90% completion rate and 95% of equipment are already on-site ready for installation. Tunasan STP is scheduled to be completed by November 2019. Additionally, a common concern in all facilities is the delay in the power supply connection with power utility (MERALCO). MWSI management is closely coordinating with the power company to ensure the facilities are electrified before pre-commissioning. Meanwhile, progress of remaining sewer network contracts remains slow. Of the five sewer network contracts, four are below 75% completion. All sewer network contracts of the Valenzuela sewer system are severely delayed mainly due to tight restrictions of the LGU on road excavations along major roads, which directly impacts the sewer network trunk mains that have alignment along McArthur Highway. To address this, MWSI is closely coordinating with Valenzuela LGU to fast-track critical segments of the network that will bring influent to the STP. MWSI in July 22, 2019 finally decided to defer a segment of Valenzuela Package 3 due to right-of-way issues with a private subdivision. An estimated 15 MLD will not be achieved because of the said development. MWSI will continue seeking alternative measures including renegotiating with the private subdivision and complete the said segment using their internal funds by 2020. The Cupang sewer system's pipe laying is at 95% physical completion although delays are being experienced at the interceptor structures and associated pumping station. PS#7, Bayanan interceptor and Bayanan pumping station (PS) are at 60%, 70%, and 10% physically completed, respectively. Bayanan PS is delayed due to the constricted working space. In Tunasan sewer system, the situation is reversed with the pumping stations and interceptors completed or at very advanced stages while the sewer pipe laying is still at 70%. The remaining 30% is concentrated in the southern portions where the right-of-way passes through one-way streets where only 20-m segments have been allowed to be constructed at a time.

While Ilugin and Valenzuela STPs of MWCI and MWSI respectively, are expected to be completed within 2019, the sewer networks of both facilities continue to experience construction delays. To ensure delivery of wastewater inflows into the STPs upon their physical completion to enable process-proving but also to achieve BOD treatment in fulfillment of the project PDO, MWCI and MWSI are implementing additional wastewater interceptors within or adjacent to their respective STPs. For MWCI, an additional wastewater interceptor for Ilugin STP started construction on May 2019. Wastewater from Ilugin creek will be diverted into the facility via two 500-mm diversion culverts with expected average capacity of 15 MLD. The interceptor is less than ten meters away from the nearest sewer network. However, construction is slightly delayed due to excess high-water infiltration from the adjacent creek swollen from recent rains. Completion date has been recalibrated to August 2019. MWSI also started construction of an additional wastewater interceptor on April 1, 2019. The in-channel interceptor will capture around 20 MLD from Marulas creek into Valenzuela STP. Completion is targeted by September 30, 2019, just in time for pre-commissioning of the STP. In lieu of the on-going channel improvement project of DPWH for Marulas Creek and in anticipation of the planned dredging project of MMDA, MWSI constructed the in-channel interceptor 0.5-meters below the current (pre-dredging) channel bottom. MWSI is coordinating with DPWH and MMDA to ensure Marulas Creek is dredged in time for the operationalization of the interceptor to ensure efficient flow diversion into the facility.

**Disbursement.** As of July 26, 2019, disbursements stand at US\$214.22 million (77.9% of total loan amount): MWCI (60.4%) and MWSI (95.4%).

**Achievement of PDO.** MWSI has already achieved substantial amounts of BOD treatment and population coverage and is set to exceed their targets as completed facilities accumulate benefits during the requested extension period. For MWCI, the official inclusion of the Marikina and UP contracts will contribute to the achievement of the two main PDO indicators by loan closing date..

## Risks

### Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	--	● High	● High
Macroeconomic	--	● Moderate	● Moderate
Sector Strategies and Policies	--	● Low	● Low

Technical Design of Project or Program	--	● High	● High
Institutional Capacity for Implementation and Sustainability	--	● Low	● Low
Fiduciary	--	● Moderate	● Moderate
Environment and Social	--	● Substantial	● Substantial
Stakeholders	--	● Substantial	● Substantial
Other	--	--	--
Overall	--	● Substantial	● Substantial

## Results

### PDO Indicators by Objectives / Outcomes

To improve wastewater services in selected sub-catchments of Metro Manila and surrounding areas.				
▶Reduction of BOD in the collected wastewater in MWCI (Tones/year, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	634.00	876.00	1,708.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
▶Reduction of BOD in the collected wastewater in Maynilad (Tones/year, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	976.00	1,707.00	1,848.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
▶Population Equivalent in the catchment area that would benefit from the project in MWCI (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	400,000.00	400,000.00	1,200,000.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
▶Population Equivalent in the catchment area that would benefit from the project in Maynilad (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	658,000.00	1,000,000.00	1,300,000.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
▶Private Capital mobilized by MWCI (Amount(USD), Custom)				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	17.52	17.52	11.72
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
<b>►Private Capital mobilized by Maynilad (Amount(USD), Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	63.32	63.32	41.26
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020

### Intermediate Results Indicators by Components

Investments in Wastewater Services by MWCI				
<b>►Progress in construction for MWCI (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	73.00	73.00	100.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
<b>►Increase in wastewater treatment capacity in MWCI (Cubic Meter(m3), Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	19.00	165,000.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020

Investments in Wastewater Services by Maynilad				
<b>►Progress in construction for Maynilad (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	74.49	84.98	100.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020
<b>►Increase in wastewater treatment capacity in Maynilad (Cubic Meter(m3), Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	81,500.00	81,500.00	187,500.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020



► Increase in septage treatment before disposal in Maynilad (Cubic Meter(m3), Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	250.00	250.00	250.00
Date	31-May-2012	14-Feb-2019	28-Jun-2019	30-Jun-2020

**Data on Financial Performance**

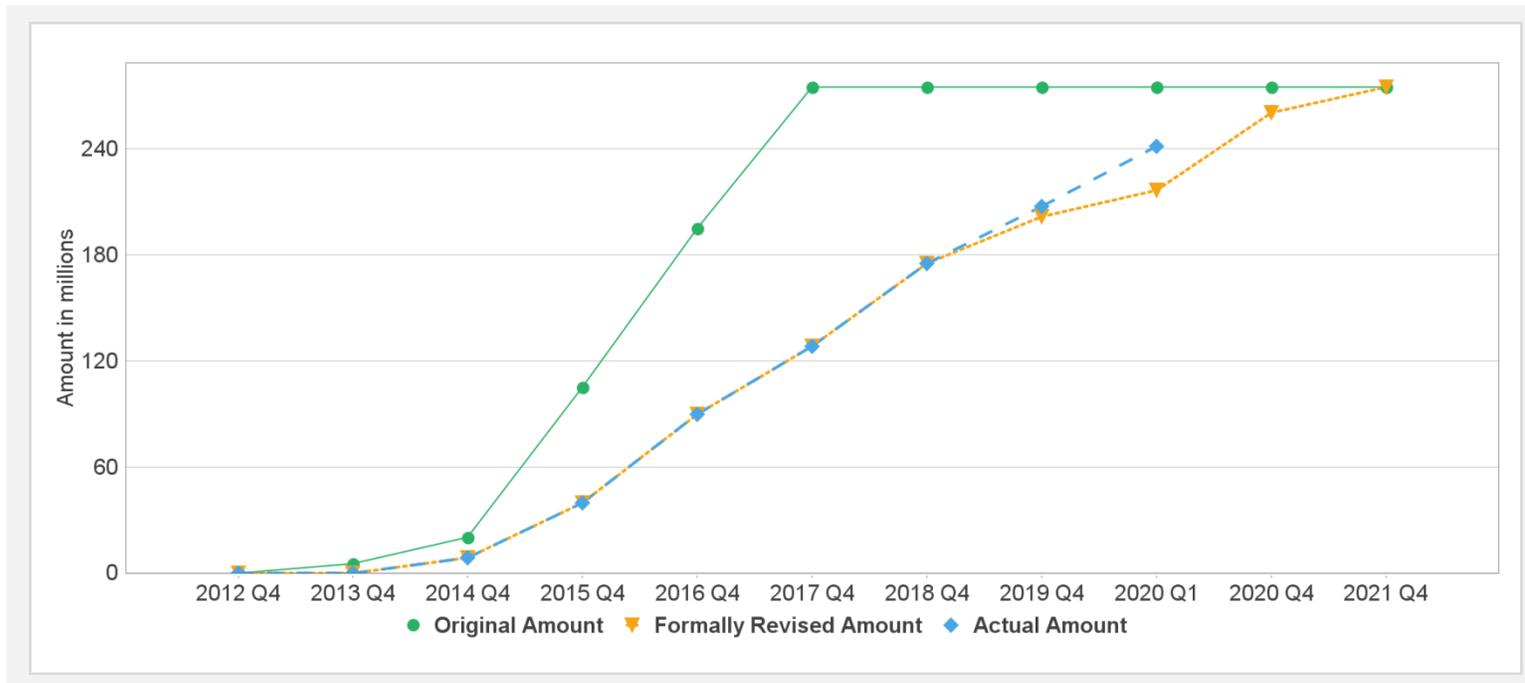
**Disbursements (by loan)**

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P113844	IBRD-81620	Effective	USD	275.00	275.00	0.00	241.49	33.51	88%

**Key Dates (by loan)**

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P113844	IBRD-81620	Effective	15-May-2012	31-May-2012	19-Oct-2012	30-Jun-2017	30-Jun-2020

**Cumulative Disbursements**





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## Restructuring History

Level 2 Approved on 14-Jun-2017 ,Level 2 Approved on 27-Jun-2019

## Related Project(s)

P145661-FS for Sewerage System Improvement in Caloocan, Malabon and Navotas

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