

Environmental Monitoring Report

Annual Report
January – December 2018
February 2020

Indonesia: Metropolitan Sanitation Management and Health Project

Prepared by Directorate General of Human Settlements, Ministry of Public Works and Housing
for the Republic of Indonesia and the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 7 February 2020)

Currency unit	–	Rupiah (Rp)
Rp1.00	=	\$13,673
\$1.00	=	Rp0.0000731368

- (i) In this report, "\$" refers to United States dollars.

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Environmental Safeguards Monitoring Report

2018 Annual Monitoring Report

Project Number: 2654-INO
January – December 2018

INDONESIA : Metropolitan Sanitation Management and Health Project (MSMHP)

Asian Development Bank

ACRONYMS AND ABBREVIATIONS

ADB	— Asian Development Bank
AH	— Affected household
AMDAL	— <i>Analisa Mengenai Dampak Lingkungan</i> (Environmental Impact Assessment Process which includes ANDAL, RKL, and RPL)
ANDAL	— <i>Analisis Dampak Lingkungan</i> (Environmental Impact Assessment)
BAPEDALDA	— <i>Badan Pengendalian Dampak Lingkungan Daerah</i> (City / District Environmental Agency)
BLH	— <i>Badan Lingkungan Hidup</i> (Environmental Bureau)
CPMU	— Central Project Management Unit
DGHS	— Directorate General of Human Settlements
EA	— Executing agency
EIA	— Environmental Impact Assessment
EMP	— Environmental Management Plan
EMoP	— Environmental Monitoring Plan
IA	— Implementing Agency
IEE	— Initial Environmental Examination
IP	— Indigenous People
IPDF	— Indigenous People Development Framework
IPDP	— Indigenous People Development Plan
O&M	— Operation and maintenance
PP	— <i>Peraturan Pemerintah</i> (Government Regulation)
RKL	— <i>Rencana Pengelolaan Lingkungan</i> (Environmental Monitoring Program)
RPL	— <i>Rencana Pemantauan Lingkungan</i> (Environmental Monitoring Program)
UKL	— <i>Upaya Pengelolaan Lingkungan</i> (Environmental Management Effort, similar to IEE)
UPL	— <i>Upaya Pengelolaan Lingkungan</i> (Environmental Monitoring Effort, similar to EMP)
WWTP	— Wastewater Treatment Plant

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I. INTRODUCTION

1. The Metropolitan Sanitation Management and Health Project (MSMHP) is implemented to achieve improved public health and reduced environmental pollution in Yogyakarta and Medan. The project outcome is to have increased access to improved wastewater in both cities which target 2.4% and 7% increase in population in Medan and Jakarta respectively with access to sewer connection. The project includes the following outputs: (i) community mobilization for improved health and hygiene including construction of community-based sanitation facilities; (ii) infrastructure development for sewerage including improvement and extension of sewer systems and wastewater treatment plants; and (iii) consultant support for project implementation. Under output (i) there are two subcomponent such as: (a) community mobilization and empowerment for communal sanitary facilities and (b) constructing about 280 new communal sanitation facilities. For the sewerage development, the component will include rehabilitating and expanding existing off-site sanitation systems in Medan and Yogyakarta and providing approximately 28,000 additional house connections.
2. The project in Yogyakarta covers administrative areas of Yogyakarta city, Sleman district and Bantul district, an agglomeration known as KARTAMANTUL. Project intervention include sewerage construction which is connected to the existing wastewater treatment plant at Sewon (WWTP Sewon). In Medan, project intervention includes optimization of the existing WWTP Cemara and construction of sewerage networks in zone 9 and zone 10-11. During the reporting period, the works in zone 10-11 is still progressing (the other works has been completed within 2011 – 2015). Under the national budget, EA also facilitate the construction of sewerage network in zone 12. Project maps can be seen in Figure 1 and 2 below.

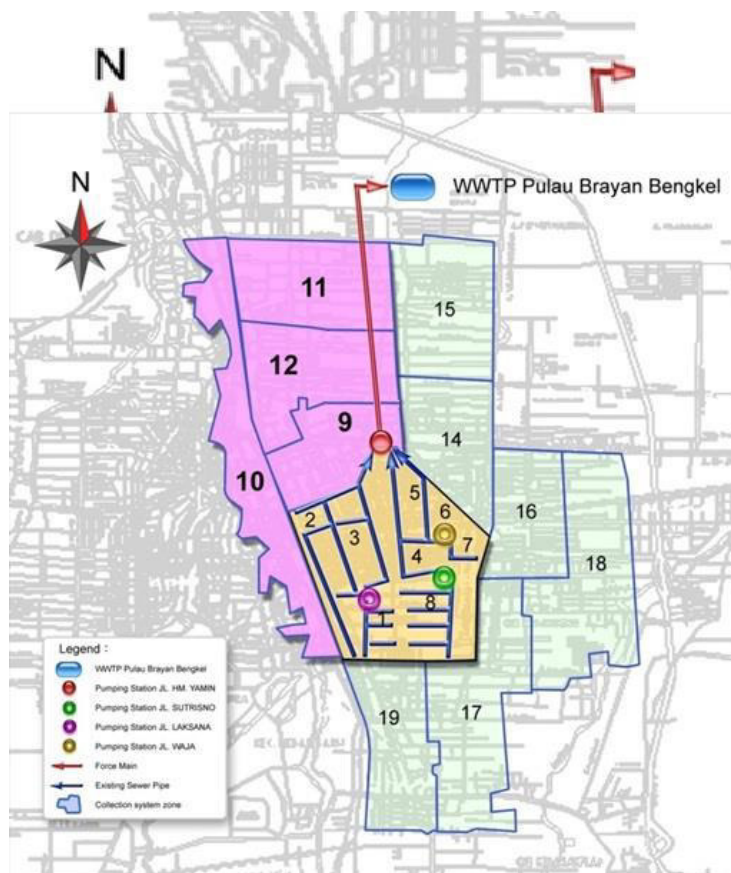


Figure 1. Medan's Zonation Map

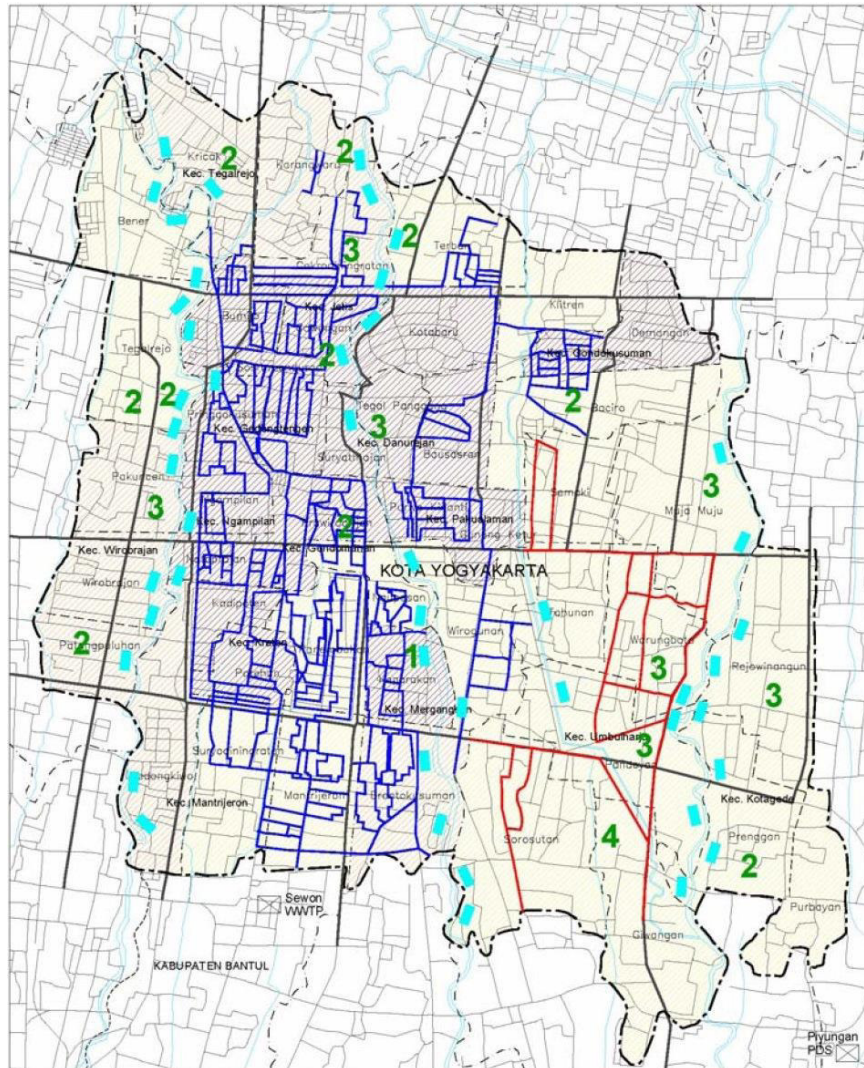


Figure 2. Kartamantul's Zonation Map

3. The Project has been classified by ADB as environmental category B. An Initial Environmental Examination (IEE) has been prepared in 2009. The project's impacts are site-specific such as soil erosion caused by excavation activity, dust pollution, construction noise, traffic congestion caused by construction activity, with proven and readily designed mitigation measures. Initial environmental examinations were conducted, and environmental management plans were developed and will be implemented in compliance with ADB's environmental assessment requirements prescribed in its Environment Policy (2002). The executing agency will implement, monitor, and periodically report to ADB on the status of environmental management plan implementation.
4. In compliance with the Government of Indonesia requirements for environmental management, the project has prepared AMDAL (Analisis Mengenai Dampak Lingkungan which consists of Environmental Impact Assessment, Environmental Management Plan, and Environmental Monitoring Plan or ANDAL-RKL-RPL). The AMDAL study entitled: "Environmental Impact Assessment of Installation of Secondary Pipe Network and Household Wastewater Connection to support Metropolitan Sanitation Management and

Health Project di Kota Medan dan Kabupaten Deli Serdang, Provinsi Sumatra Utara”.¹ The AMDAL reports have been approved by Badan Lingkungan Hidup (BLH) Kota Medan, which was then endorsed by the Mayor of Medan City. Approval of the AMDAL was given in 2014 through Decision of the Governor of North Sumatra (No. 188.44/559/KPTS/2014). The Governor gave the decision because the project area covers more than one administrative unit, i.e. Medan city and Kabupaten Deli Serdang. The Mission has received Andal report, but has not received the RKL and RPL reports, and therefore requested soft copy of the RKL and RPL reports. The Mission also requested copy of Izin Lingkungan issued by concerned agency as required by PP No. 27/2012 related to Izin Lingkungan.

5. The environmental safeguard monitoring report is prepared to report environmental-related activities to meet ADB's Environment Policy (2002). The report reviewed (i) Institutional setup and responsibilities for EMP implementation and supervision (ii) Compliance with environment related project covenants (iii) Compliance with environment related project covenants (iv) Environmental mitigations measures implemented in the reporting period (v) Environmental monitoring (vi) Public consultation including grievance redress mechanism (vii) Health and Safety (viii) Institutional strengthening and training.

¹ *Rencana Kegiatan Pemasangan Jaringan Pipa Sekunder dan Sambungan Rumah Air Limbah Rumah Tangga mendukung Kegiatan Metropolitan Sanitation Management and Health Project di Kota Medan dan Kabupaten Deli Serdang, Provinsi Sumatra Utara.*

II. PROJECT IMPLEMENTATION PROGRESS

6. The Metropolitan Sanitation Management and Health Project consists of two subprojects which is implemented in Yogyakarta and Medan City. Subprojects in Yogyakarta has been completed in 2014 while the subproject in Medan is partially completed with no physical work activities occur in 2018.

Subproject in Yogyakarta City

7. In Yogyakarta subproject, by 2014 three packages with a total value of \$6,39 million were completed: (i) sewerage expansion phase 2, (ii) sewerage expansion phase 3 and (iii) CCTV installment. The sewerage covers administrative areas of Yogyakarta city, Sleman district and Bantul district, an agglomeration known as KARTAMANTUL. The sewerage is connected to the existing wastewater treatment plant at Sewon (WWTP Sewon). The works in Yogyakarta have been completed and provisionally handed over in September and March 2014. In addition, there have been 52 community-based sanitation built through financing facility of the Special Allocation Fund (*Dana Anggaran Khusus / DAK*), STBM, and Sanimas Program over the course of 2010-2014. Figure 3 shows WWTP Sewon while figure 4 shows the community-based sanitation facilities.



Figure 3. WWTP Sewon in Bantul Regency



Figure 4. Community-based Sanitation Facilities in Yogyakarta

8. The environmental impact during implementation period in Yogyakarta subproject includes soil erosion from excavation, dust pollution, construction noise, and traffic jam caused by construction activity. To mitigate the impact, the project carried out control measures on environmental impacts such as: build sheet pile to prevent landslide caused by excavation and spraying water on construction sites to reduces air pollution.

Subproject in Medan City

9. There are initially five civil works packages in Medan, of which three of them have been completed by January 2015. The remaining two packages were later terminated and redesigned. However, due to the availability of the remaining loan proceeds, only package for Zone 10 and 11 that is financed by the loan proceeds, while the package for Zone 12 is financed by the APBN.
10. The scope of work in zone 10 – 11 can be find in the appendices. The contract profiles are as follows.

Table 1. Contract Data Sheet of The Contractor

No.	Description	Remarks
1	Contract Number	HK.02.03/SUP.MSMHPSSMOZP_MDN/PSPLP-I/721/2018
2	Name of Contractor Firm	PT Nindya Karya (Persero)
3	Contract Date	9 November 2018
4	Work Title	<i>Optimalisasi Jaringan Pipa Air Limbah, MSMHP Kota Medan Zona 10-11</i> (Optimization of Sewerage Pipelines, MSMHP Medan City Zone 10-11)
5	Work Location	Medan City, North Sumatera Province
6	Date of SPMK (<i>Warrant to Start the Work</i>)	9 November 2018
7	Contract Value	Rp 131,561,421,000 (including 10% tax/PPN)
8	Contract Period	723 lendar days

Table 2. Contract Data Sheet of The Supervision Consultant

No.	Description	Remarks
1	Contract Number	HK.02.03/SUP.MSMHPSSMOZP_MDN/PSPLP-I/720/2018
2	Name of Consultant Firm	PT Arkonin Engineering Manggala Pratama
3	Contract Date	9 November 2018
4	Work Title	Project Management and Consultant Supervision MSMHP Medan City Zone 10-11)
5	Work Location	Medan City, North Sumatera Province
6	Date of SPMK (<i>Warrant to Start the Work</i>)	9 November 2018
7	Contract Value	Rp 9,428,210,000 (including 10% tax/PPN)
8	Contract Period	723 Calendar days

11. As of 31 December 2018, progress of physical work compared to the contract is as follows.
 - Planned : 1.002%
 - Realization : 3.810%
 - Deviation : +2.808%

12. As of 31 December 2018, financial progress compared to the contract is as follows.
- Planned : 1.002%
 - Realization : 0.000%
 - Deviation : -1.002%
13. Due to contract award for civil works has not been made until November 2018 and the construction work permit has not been released from Mayor of Medan since the Medan City Government is concerned about construction method. In the past project, the clean construction method is not implemented properly. The previous excavation work method created a negative perception of MSMHP's work in the view of the Medan community due the damaged roads and the excavations that left open for long time. The news coverage of MSMHP activities can be seen in Appendix.
14. During January – December 2018, there is no civil work has been done. In this period, the Contractor activity was preparation work such as manpower mobilization, soil test, and preparation of pumping station land area.

III. INSTITUTIONAL SETUP AND RESPONSIBILITIES FOR EMP IMPLEMENTATION AND SUPERVISION

15. The Directorate General of Human Settlements (DGHS) or Cipta Karya of the Ministry of Public Works and Housing (MPWH) is the Executing Agency for MSMHP. The Central Project Management Unit (CPMU) is establish at the Sub-Directorate of Wastewater under the Directorate of Environmental Sanitation Development. At the provincial level, the Provincial Project Management Unit (PPMU) is the implementing agency of the project. The PPMU has been established in North Sumatera and Yogyakarta.
16. Implementing Agencies (IA). The responsibility of the IAs is to carry out the environmental assessment process according to the national environmental legislation and to obtain environmental clearance from the relevant project approving authority (Dinas LH) and ADB for environmental compliance before awarding contracts for the subcomponents. In both cities, the government agency in charge of the on-site sewerage projects related to government housing projects is DGHS. Sludge collection from on-site wastewater treatment (septic tank, communal STP, etc.) is the responsibility of *Dinas Kebersihan* in both Medan and Yogyakarta.
17. The table below summarizes the institutional arrangement for the environmental aspects for both projects during the reporting period.

Table 3. Environmental Management Institution

Unit	Unit Functions	Responsible for Environmental Aspects/Functions	Consultants / Functions
Construction Phase			
Ministry of Public Works' Directorate General of Human Settlements (DGHS)	Executing Agency for MSMHP; Provides technical supervision and responsibility over the investment		
Central Project Management Unit (CPMU) at Sub-Directorate of	Responsible for MSMHP implementation in project cities;	CPMU will responsible for overall supervision in the project including	Environmental Safeguard in Project Management and Consultant

Unit	Unit Functions	Responsible for Environmental Aspects/Functions	Consultants / Functions
Wastewater under the Directorate of Environment Sanitation Development (Dir. PPLP)	Coordinates with ADB and other external agencies	environmental aspect; Coordinates with PPIU and LPMU to ensure environmental aspect are well implemented; responsible for environmental monitoring reports preparation.	Supervision (PMCS) will: (i) assist CPMU and PPMU in monitoring of EMP implementation; and, (ii) assist CPMU in preparation of semi-annual environmental safeguard monitoring reports.
Provincial Project Management Unit (PPMU) has been established under Satker PPLP North Sumatera and Satker PPLP D.I. Yogyakarta.	Key implementation unit in the field; Provides technical advice to both Contractor and Consultant to lead implementation in the field; Closely monitors construction progress.	PPMU is responsible for overall environmental supervision of construction activities; ensure that the Contractor's EMP is properly implemented and monitored.	Assist PPMU in monitoring environmental mitigation activity implementation in the field.
Construction contractor	Implement construction activities.	Contractor's responsible for implementation of the Contractor's Environmental Mitigation Activities; Coordinates with PPMU and PMCS related to environmental mitigation activities.	

18. It is mandatory for the Contractor to carry out environmental mitigation activities to minimize the environmental impacts resulted from project activities. Contractor should prepare environmental management plan to carry out environmental safeguard compliance. The activities that can be carried out by Contractor to minimize the impact during construction stage are as follows:

Table 4. Environmental Mitigation Activities

No	Environmental Impact	Environmental Management Activity
1	Job Opportunities	<ol style="list-style-type: none"> 1. The Contractor should coordinate with Camat/ Kelurahan/ Head of Lingkungan (Kepling) for construction worker recruitment; 2. Give priority to local construction worker as project construction worker. 3. Conduct job education and training related to project implementation for local workers.
2	Air Quality	<ol style="list-style-type: none"> 1. Using transportation mode to mobilize utility and materials that pass the noise and speculation test by the Transportation Agency; 2. Regularly watering and washing the body of the road, specially in the dry season, which is in morning, afternoon, and evening;

No	Environmental Impact	Environmental Management Activity
		<ol style="list-style-type: none"> 3. The past project vehicle Lalang was given a tarpaulin cover if it was loaded 4. Watering the dump truck wheels since entering and exiting the project; 5. Give masks for construction workers and communities in surrounding location areas. 6. Making a guardrail (zinc fence / multiplex) at the excavation location.
3	Road Damage	<ol style="list-style-type: none"> 1. Soil excavation should be done according to technical methods about excavation work and placement of excavated land so it will not cause road traffic or disturb community activity 2. Soil excavation, installation, and compaction method should be done using "clean construction" (every 100 m of excavation work, pipe installation should be done immediately, excavation must be covered again with soil, the remaining soil should be clean from the project area so the soil taps are minimized as little as possible. 3. For the excavation work, the hole needs to be guard with zinc fence
4	Road Traffic	<ol style="list-style-type: none"> 1. Maintain roads regularly 2. Repair damaged road caused by pipe installation work immediately; 3. Reduce material transportation activity in rush hour; 4. Arranging the mobility of equipment and materials not during rush hour / solid vehicles; 5. For sewer pipe that crossing the road, the installation work will be done at night.
5	Public unrest	<ol style="list-style-type: none"> 1. The excavation of land should be as small as possible and immediately closed again; 2. The method of excavation, installation, and closure is carried out by the method of "clean construction", so that the piles / mounds of land are minimized as little as possible; 3. For the excavation work, the hole needs to be guard with zinc fence 4. Before carrying out activities, Contractor must coordinate with cross-sectoral agencies / agencies. 5. Make a signpost warning "there is a pipe excavation" at the time of carrying out the work
6	Public Attitudes and Perceptions	<ol style="list-style-type: none"> 1. The excavation of land should be as small as possible and immediately closed again; 2. The method of excavation, installation, and closure is carried out by the method of "clean construction", so that piles / mounds of land are minimized as little as possible; 3. For the manufacture of pipe holes, it is necessary to make a fencing with zinc so that road users are not disturbed; 4. Before carrying out activities, Contractor must coordinate with cross-sectoral agencies / agencies.

IV. COMPLIANCE WITH ENVIRONMENT RELATED PROJECT COVENANT

19. There should be no overall significant adverse environmental impacts. However, temporary, transient adverse impacts can be expected during the construction phase and can be addressed through proper engineering design and incorporation of the identified mitigation measures. Permanent damage to the environment by the Project depends on the quality of O&M work to be carried out. As such, the operation of sanitary facilities, and not construction mitigation and monitoring efforts, will be significant to determine positive environmental effects in the long- term. Environmental Management Plans (EMP) detailing the mitigation measures and monitoring plan during pre-construction, construction and operation phases have been prepared. Affected persons will be informed in advance about potential risks during construction (such as traffic accidents, loss of business, flooding etc.) and about the mechanisms that exist to address any grievances.
20. The PPMUs will be responsible for carrying out the environmental assessment process according to the national environmental legislation and to obtain environmental clearance from the relevant project approving authority (Environmental Agency) and ADB for environmental compliance before awarding contracts for the subcomponents. In both cities, the government agency in charge of the on-site sewerage projects related to government housing projects is DGHS. Sludge collection from on-site wastewater treatment (septic tank, communal STP, etc.) is the responsibility of Dinas Kebersihan in both Medan and Yogyakarta.
21. During construction, compliance monitoring will be conducted in accordance with the environmental monitoring plan. The PPMU will include information on environmental monitoring in the quarterly progress reports. In addition, the PPMU will prepare and submit semiannual environmental monitoring report to ADB for review. Should environmental conditions change during the implementation, the PPMU will also need to update EMP and prepare corrective action plan and submit them to ADB. The reports will be publicly disclosed in ADB website once the quality is acceptable to ADB. No later than 1 month before the completion of the construction work, the PPMU will collect material from all contractors and provide a construction completion report to the stakeholders. The environmental section of this report will indicate the timing, extent, and success of mitigation completed and the maintenance and monitoring needs during operations.
22. The project covenants related to environment can be seen in paragraph no 8 (can be seen in Table below) with status/ remarks to project covenants is complied with per December 2018.

Table 5. Loan Covenants regarding Environment

Para. No.	Covenants	Status/Remarks
8.	Environment. The Borrower shall ensure that the construction and operation of the Project facilities shall be carried in accordance with (a) the initial environmental examinations prepared for the Project and approved by ADB; (b) the Borrower's environmental laws and regulations; and (c) ADB's Environmental Policy (2002). In the event of discrepancy between the Borrower's laws and regulations, and ADB's Environmental Policy, ADB's policy shall prevail. The Borrower shall also implement the	Complied with.

Para. No.	Covenants	Status/Remarks
	environmental mitigation and monitoring measures, and other recommendations specified in the initial environmental examinations to minimize any adverse environmental impacts arising from the construction and operation of the Project facilities.	

V. ENVIRONMENTAL MITIGATIONS MEASURES IMPLEMENTED IN THE REPORTING PERIOD

MSMHP in Yogyakarta. The environmental safeguard aspect in Yogyakarta have been implemented in a satisfactory manner in accordance with ADB safeguards policies based on Service Completion Report (SCR) that prepared by previous consultant.

MSMHP in Medan. The Contractor's Environmental Management Plan (CEMP) has been prepared. Some plan has been prepared by Contractor related to Clean Construction Method for pipeline installation method, HSE aspect, and Road Traffic.

23. There is no environmental mitigation implemented in the reporting period since there is no civil construction activity in 2018.
24. The mitigation measures for Construction Phase based on EMP Medan City can be seen in the Table below.

Table 6. Environmental Mitigation Measures

Impact Factor/ Stage	Potential Impacts and/or Issues	Mitigation Measures defined in the EMP	Implementation status and compliance with EMP
Construction Phase			
1. Job Opportunities	<ol style="list-style-type: none"> 1. Recruitment of local workers ≤ 60% from project location surrounding area. 2. Worker take homepay ≤ UMR Medan City and Kab. Deli Serdang; 3. Preferred project workers are 	<ul style="list-style-type: none"> • The Contractor should coordinate with Camat/ Kelurahan/ Head of Lingkungan (Kepling) for construction worker recruitment; • Give priority to local construction worker as project construction worker. • Conduct job education and training related to project implementation for local workers. 	No data since construction has not began ²

² The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Mayor of Medan City.

Impact Factor/ Stage	Potential Impacts and/or Issues	Mitigation Measures defined in the EMP	Implementation status and compliance with EMP
	<p>residents who are close to the project site;</p> <p>4. There is no recruitment to unemployment in the project area</p>		
2.Air Quality	The air quality is exceeded Government Regulation No. 41/ 1999 for Air Quality Management	<ul style="list-style-type: none"> Using transportation mode to mobilize utility and materials that pass the noise and speculation test by the Transportation Agency; Regularly watering and washing the body of the road, especially in the dry season, which is in morning, afternoon, and evening; The past project vehicle Lalang was given a tarpaulin cover if it was loaded Watering the dump truck wheels since entering and exiting the project; Give masks for construction workers and communities in surrounding location areas. Making a guardrail (zinc fence / multiplex) at the excavation location. 	No data since construction has not began ³
3.Road Damage	Damage road because excavation and pipe installation work caused road traffic	<ul style="list-style-type: none"> Soil excavation should be done according to technical methods about excavation work and placement of excavated land so it will not cause road traffic or disturb community activity Soil excavation, installation, and compaction method should be done using "clean construction" (every 100 m of excavation work, pipe installation should be done immediately, excavation must be covered again with 	No data since construction has not began ⁴

³ The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Mayor of Medan City.

⁴ The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Mayor of Medan City.

Impact Factor/ Stage	Potential Impacts and/or Issues	Mitigation Measures defined in the EMP	Implementation status and compliance with EMP
		<p>soil, the remaining soil should be clean from the project area so the soil taps are minimized as little as possible.</p> <ul style="list-style-type: none"> For the excavation work, the hole needs to be guard with zinc fence 	
4.Road Traffic	Average traffic delay caused by project activity in intersection arms is >40 seconds / vehicle for intersection arms with APIL and >30 seconds / vehicle for intersection arms without APIL.	<ul style="list-style-type: none"> Maintain roads regularly Repair damaged road caused by pipe installation work immediately; Reduce material transportation activity in rush hour; Arranging the mobility of equipment and materials not during rush hour / solid vehicles; For sewer pipe that crossing the road, the installation work will be done at night. 	No data since construction has not began ⁵
5.Public unrest	<ol style="list-style-type: none"> There is public unrest due to project activities; Public perception of activities is negative 	<ul style="list-style-type: none"> The excavation of land should be as small as possible and immediately closed again; The method of excavation, installation, and closure is carried out by the method of "clean construction", so that the piles / mounds of land are minimized as little as possible; For the excavation work, the hole needs to be guard with zinc fence Before carrying out activities, Contractor must coordinate with cross-sectoral agencies / agencies. Make a signpost warning "there is a pipe excavation" at the time of carrying out the work 	No data since construction has not began ⁶

⁵ The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Major of Medan City.

⁶ The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Major of Medan City.

Impact Factor/ Stage	Potential Impacts and/or Issues	Mitigation Measures defined in the EMP	Implementation status and compliance with EMP
6.Public Attitudes and Perceptions	Society perception for project is negative	<ul style="list-style-type: none"> The excavation of land should be as small as possible and immediately closed again; The method of excavation, installation, and closure is carried out by the method of "clean construction", so that piles / mounds of land are minimized as little as possible; For the manufacture of pipe holes, it is necessary to make a fencing with zinc so that road users are not disturbed; Before carrying out activities, Contractor must coordinate with cross-sectoral agencies / agencies. 	No data since construction has not began ⁷

VI. ENVIRONMENTAL MONITORING

25. Environmental Monitoring Plan (EMoP) has been made in 2014 and authorized by Environmental Bureau / Badan Lingkungan Hidup (BLH) North Sumatera Province since the initial project location is under 2 regencies/cities (Medan City and Kab. Deli Serdang).
26. Based on EMoP document that has been released on 2014, the environmental monitoring plan (environmental impact source, indicator/parameter, monitoring method, monitoring frequency, and analytical methods) for environmental impact on MSMHP in Medan City can be seen in the Table below:

Table 7. Environmental Monitoring Report

Environmental Impact	Environmental Impact Source	Indicator/parameter	Monitoring Method and Analytical Method	Monitoring Frequency	Monitoring Results
1. Job Opportunities	Construction worker recruitment	1. Recruitment of local workers \geq 60% from project location surrounding area. 2. Worker take homepay \geq UMR Medan City and Kab. Deli Serdang; 3. Preferred project workers are residents who are close to	Data collection method: 1. Interview with local workers and migrant workers as much as 10 person. 2. Observation on the field to prove local workers is already recruited. 3. Quitionare to at least 100 respondents	Every 6 months during construction phase	Not yet conducted/ due

⁷ The civil construction for current project is expected to begin in early 2019 when the construction permit has been released by Major of Medan City.

Environmental Impact	Environmental Impact Source	Indicator/parameter	Monitoring Method and Analytical Method	Monitoring Frequency	Monitoring Results
		the project site; 4. There is no recruitment to unemployment in the project area	from every zones proportionally to obtain data on community attitudes and perceptions of local workforce recruitment. Analytical method: Analyse data by calculate recruited local worker portions from the entire worker amount.		
2. Air Quality	1. Mobilization of construction utilities and materials; 2. Soil excavation and pipe installation work; 3. Cleaning the remaining material; 4. Provision of electrical energy from the generator engine	Government Regulation No. 41/1999 for Air Quality Management	Data collection method: 1. Take air quality samples in the field; 2. In-field observation; 3. Interview with the community in the surrounding location area; 4. Questionnaire with community in the surrounding location area; Analytical method: The results of air quality measurements are then compared with quality standards and baseline data.	Every 6 months during construction phase, and extra sampling/monitoring in dry season beside the routine monitoring schedule	Not yet conducted/ due
3. Road Damage	1. Mobilization of construction utilities and materials; 2. Soil excavation and pipe installation work.	Length and width of damaged road caused by soil excavation and pipe installation	1. Length and width measurement of damaged road; 2. Direct observation in the field 3. Interview with the community in the	Every 6 months during construction phase	Not yet conducted/ due

Environmental Impact	Environmental Impact Source	Indicator/parameter	Monitoring Method and Analytical Method	Monitoring Frequency	Monitoring Results
			<p>surrounding project area;</p> <p>4. Questionnaire for the community in the surrounding project area.</p> <p>Analytical Method: Based on damaged road percentage to all road excavation volume.</p>		
4. Road Traffic	<p>1. Soil excavation and pipe installation work;</p> <p>2. Utility and material mobilization;</p> <p>3. Material debris cleaning up activity</p>	<p>Average traffic delay caused by project activity in intersection arms is <40 seconds / vehicle for intersection arms with APIL and <,30 seconds / vehicle for intersection arms without APIL.</p>	<p>1. In-depth interviews with 2 residents who were at the intersection of the source of traffic jam as much as 2 informants per intersection.</p> <p>2. Direct observation on the field to observe traffic in the location of the intersection of the traffic jam;</p> <p>3. Questionnaire is conducted together with proportional questionnaire attitude and perception of 100 respondents in location</p> <p>Analytical method: Calculating delay traffic duration during construction work.</p>	Every day during construction phase	Not yet conducted
5. Public unrest	<p>1. Soil excavation and pipe installation work;</p> <p>2. Utility and material mobilization;</p>	<p>1. There is no public unrest due to project activities;</p> <p>2. Public perception of activities is positive.</p>	<p>1. In-depth interviews with local residents who are around the location of secondary piping and</p>	Once during construction phase	Not yet conducted

Environmental Impact	Environmental Impact Source	Indicator/parameter	Monitoring Method and Analytical Method	Monitoring Frequency	Monitoring Results
	3. Material debris cleaning up activity		<p>house connections;</p> <p>2. Direct observation on the field to observe the behavior of the community to workers or to the assets of the initiator during the construction phase</p> <p>3. Questionnaire is carried out in conjunction with the attitude and perception questionnaire of 100 respondents in location proportionally to identify community unrest during construction.</p> <p>Analytical method: Tabulation to find out the percentage of people who are restless due to activities</p>		
6. Public Attitudes and Perceptions	<p>1. Soil excavation and pipe installation work;</p> <p>2. Utility and material mobilization;</p> <p>3. Material debris cleaning up activity</p>	Society perception for project is positive.	<p>1. In-depth interviews with 4 residents around the secondary pipeline excavation site and house connections of 4 people in each area of the excavation zone;</p> <p>2. Direct observation on the field to observe what the community is doing or community</p>	Once during construction phases	Not yet conducted

Environmental Impact	Environmental Impact Source	Indicator/parameter	Monitoring Method and Analytical Method	Monitoring Frequency	Monitoring Results
			<p>actions towards activities during the construction phase</p> <p>3. Questionnaire is carried out in conjunction with the attitude and perception questionnaire of 100 respondents in location.</p> <p>Analytical method: Done by qualitative and quantitative analysis.</p>		

27. Currently there is no environmental monitoring activity that has been done in reporting period since there is no civil works during January – December 2018. The civil construction work is expected to begin in early 2019 when civil construction permit has been released by Mayor of Medan City.

VII. PUBLIC CONSULTATION, GRIEVANCE REDRESS MECHANISM

28. Public consultation and grievance redress mechanism still in discussion during reporting period to provide best mechanism.

VIII. HEALTH AND SAFETY

29. Health and safety expert are mobilized in Consultant team for the project. Health and safety expert job description in Consultant, among other is to make sure construction work is done properly according health and safety guideline.
30. During reporting period (January – December 2018), there is no fatal and serious accidents since civil works has not yet begun in this period.

IX. INSTITUTIONAL STRENGTHENING AND TRAINING

31. There is no institutional strengthening and training activity during reporting period.

X. KEY ENVIRONMENTAL ISSUES

32. Up until December 2018, there is no key environmental issues that need to be address during reporting period.

33. Contractor should prepare clean construction method of pipe installation and soil excavation that refer to mitigation in EMP document to reduce impact from construction work activities.
34. Contractor should coordinate with Satlantas North Sumatera immediately regarding traffic and diverting flow. Coordinate should prepare signs for diverting traffic flows and place it around the project site.
35. Contractor should procure Personnel Protective Equipment (PPE) which complies with the HSE standard. The minimum PPE that construction worker and visitor should wear on the construction field are construction helmet and safety vest.

XI. CONCLUSION

36. Since the Consultant and Contractor for package 4 (Medan Sewerage Expansion Zone 10-11) just get contract reward on November 2019 and no civil works activity during January – December 2018, there is no environmental issues / impact caused by MSMHP activity.
37. Contractor should prepare a work plan in accordance with mitigation measures that listed in the EMP document of Medan City activity.

Article Related to the Objection of MSMHP from Medan City Government

- ## Soal Galian Pipa Rusak Aspal

MEDAN (Waspada): Pemerintah Kota (Pemko) Medan melayangkan surat ke Kementerian PU terkait pengerjaan proyek Metropolitan Sanitation Management and Health Project/Proyek Pengelolaan Sanitasi dan Kesehatan (MSMHP) yang dilakukan oleh Kementerian PU Pusat. Protes ini dilayangkan akibat kerusakan aspal permanen yang dilakukan kontraktor pelaksana proyek.

tersebut rusak parah.

"Proyek itu memang bermanfaat nantinya, tapi terpaksa kita surati Menteri PU karena keberatan atas pekerjaan tersebut yang terkesan asal-asalan. Bekas galian tak ditimbun dengan baik sehingga bekasnya menjadi rusak," kata Pdt Wali Kota Medan Dzulmi Eldin kepada wartawan disela kegiatan baurung berdiskusi di Lapangan C di kawasan Medan Johor, Minggu (8/6).

Dalam surat keberatan itu, Pemko meminta agar Kementerian PU menegur Satker pelaksana proyek serta kontraktor proyek untuk segera menutup lubang yang sudah selesai pekerjaan dan kembali diaspal.

"Banyak laporan dari masyarakat, dimana lubang-lubang yang disebabkan pekerjaan itu dibiarkan begitu saja tanpa ada tindak lanjut. Bahkan laporan masyarakat ada aspal yang rusak parah," ujarnya.

ta Karya di Jakarta. Pada point 1, lokasi proyek yang dipersoalkan antara lain Jln. Sidorukun Medan Timur, Jln. Mesjid Taufik Medan Perjuangan, Jln. Perintis Kemerdekaan, Jln. Gaharu, Jln. Prof HM Yamin, Jln. Badagat, Jln. Thamrin, Jln. Dorowati, Jln. Ngelengo, Jln. Moch. Said, Jln. Sejati, Jln. Purwo, dan Jln. Timor (Zona 9).

Pada point 3, Pemko Medan mempersiapkan koordinasi teknis dengan kontraktor pelaksana dan satker, bahwa mereka belum memiliki anggaran untuk rehabilitasi jalan, galian tersebut. Di point 4, ditugaskan kembali bahwa Pemko Medan memangkas perlunya koordinasi teknis dari Kementerian PU pada galian tersebut untuk dapat segera ditutup dan kembali diaspal.

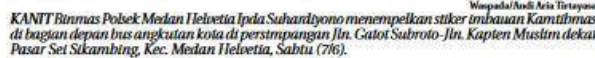
Kadis Bina Marga Kota Medan Khairul Syahnan menegaskan, pihaknya sudah berulang kali menyurat pihak Kementerian PU, Gubsu, maupun Satker di Sumut. Surat protes pertama dilayangkan oleh Dinas Bina Marga Medan, protes kedua melalui surat Sekda dan protes ketiga surat dari Wali Kota Medan.

"Kita tidak bisa berbuat apa-apa. Tapi kita akan telaah lagi, langkah apa nanti yang akan kita ambil jika surat protes ini tidak juga mendapatkan respon dari Kementerian PU. Aspal itu merupakan bagian aset daerah. Artinya sama dengan merusak aset negara," tujuhnya. (ms50)

Menganalisis langkah hukum, Eldin mengaku dirinya belum berpikir ke arah itu. Karena masih menunggu kritik baik dari pihak-pihak yang bertanggung jawab atas pekerjaan tersebut.

"Belum ada tanggapan sejak surat itu dikirimkan. Kalau memang tidak ada tanggapan lagi kita akan surat kembali. Kita hanya minta mereka merehabilitasi jalan aspal yang rusak itu," sebutnya.

Dalam surat resmi Wali Kota Medan itu tertanggal 26 Mei 2014, Nomor 620/7222 bersifat penting perihal perbaikan badan jalan Bekas Galian Air Limbah. Surat itu ditujukan kepada Menteri PU RI C/O Dirjen Cip-



- # Pengaspalan Bekas Galian Tidak Sesuai Speksifikasi

pada tanggal 19 September 2013 nomor 016.1/3149 perihal teguran dari Ditnas Marpa Medan ke Satuan Kerja (Satker) Atr Itmbah. Kedua tanggal 9 Oktober 2013 nomor 610.2/3397, ketiga tanggal 18 November 2013 nomor 610.2/3878 untuk menghentikan kegiatan penggalan, keempat tanggal 29 November 2013 nomor 610.2/4032.

Selanjutnya tanggal 26 Mei 2014 nomor 620/7222/Wali Kota Medan melaksanakan surat kepada Bapak Menteri Pekerjaan Umum RI perihal perbaikan jalan bekas galian air limbah. Ke enam surat Dtnas Bina Marga tanggal 19 Juni 2014, ke tujuh tanggal 16 Juli 2014 Dinas Bina Marga kembali melaksanakan surat ke Dinas Tarukim, ke delapan tanggal 17 November 2014 meminta untuk memperbaiki bekas galian tersebut, ke sembilan tanggal 23 Desember 2014 kembali menyuruh Satker air limbah.

Surat ke 10 tanggal 26 Februari 2015, ke 11 tanggal 6 April 2015 nomor surat 621.3/4618 Wali Kota Medan kembali melayangkan surat ke Menteri Pekerjaan Umum RI perihal perbaikan jalan bekas galian

air limbah, ke 12 tanggal 12 Oktober 2015, ke 13 tanggal 15 November kepolisan RI melayangkan surat ke Wali Kota Medan yang isinya tentang perbaikan jalan bekas galian air limbah, dan terakhir tanggal 1 Desember Dinas Bina Marga Medan kembali menyuarat Dinas Tarukim mengenai jalan tersebut. "Namun sampai sampai saat ini tidak ada jawaban," kata Syahnah.

Dan setiap penggalan mereka tidak ada koordinasi dengan Pemko Medan," ujarnya.

Dikatakannya, pihak yang bertanggungjawab dalam proyek air limbah tersebut adalah Kadis Tarukim Sumut. Karena merekalah yang mengelola semua anggaran dan penggalan tersebut.

Untuk itu, kata Syahnun, hari ini (Jumat 18/12), Pemko Medan akan mengundang semua pihak. Baik dari kepolisian, satuan kerja (Satker) maupun konsultan proyek untuk rapat di Kantor Wali Kota, dipimpin langsung PJ Wali Kota Medan.

Katanya, rapat ini merupakan upaya dari Pemko Medan guna mengatasi permasalahan galian tersebut. Dalam rapat nantinya akan dibahas komitmen pihak penanggungjawab proyek terkait dengan galian yang dikerjakan mereka.

Dikatakan Syahnun, jauh sebelumnya, pihaknya sudah

melakukan berbagai upaya dengan menyurati penanggung jawab pekerjaan bahkan sampai ke Kementerian Pekerjaan Umum, tetapi sampai saat ini belum ada tanggapan. Saat menghadiri rapat di Kementerian, Syahnah juga menyinggung permasalahan ini ke Direktorat Jendral Kota, tetapi tidak juga ada jawaban.

Ketika ditanya bagaimana dengan jalan-jalan yang kondisinya kriting, Syahnun menjawab seluruhnya menjadi tanggung jawab pihak proyek. Tetapi pihak penanggung jawab berdalih bahwasanya rekanan yang melakukan pengaspalan tidak bekerja dengan baik bahkan terkesan asal-asalan.

"Pokoknya besok (hari ini) harus jelas bagaimana pertanggungjawaban pihak proyek mengenai jalan-jalan yang rusak di kota ini. Kita minta komitmen mereka. Jangan mereka yang enak kita jadi senesara," ujarnya. (m50/f)