Environmental and Social Consideration

Quarterly Progress Report

Period of July - September 2019

Directorate General of Sea Transportation

Ministry of Transportation

Republic of Indonesia

Attachment No.16 Environmental/Social Monitoring Results

1. Implementation of RKL-RPL (Environmental Management and Monitoring Plan in EIA)

A. Pre-Construction Phase

Reported in the previous report (PSR in April 2019).

B. Construction Phase

Implementation of RKL RPL (Environmental Management and Monitoring Plan) regularly conducted semester-based as stipulated in Environmental Permit No. 136/Menlhk/Setjen/PLA 4/2/2017 regarding Development of Patimban Port at Patimban Village, Kalentambo Village, Gempol Village, Kotasari Village, Pusakaratu Village, Pusakanagara District and Pusakajaya Village at Pusakajaya District, Subang Regency, West Java Province. The implementation of RKL RPL Report Construction Phase Semester II already submitted in April 2019 to relevant agencies; Ministry of Environmental and Forestry, Environment Agency of West Java Province, and Environment Agency of Subang Regency.

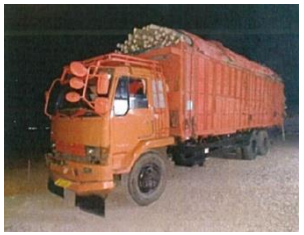
No	Potential Environmental Impact			Descriptions of RKL/RPL		Implemented Mitigation Measures / Monitoring Results (Data and Photos are attached)
	Type of Impact	Indicator of success of Environmental Management	Impact source	Method of Environmental Management Plan (RKL)	Method of Analysis and Data Collection (RPL)	
Managed Significant Impacts (referred to EIA)						
CONSTRUCTION PHASE						
2.	**Procurement of Labor and Basecamp Operation**					
2A	Opening job and business opportunity	People affected/local people that recruited as workers > 20%)	Procurement of Labor and Basecamp operation	a. Prioritize local workers from the affected area as required, educational background, qualification needed, and inclusion of workers social assurance, and referred to Regional Minimum Wage (Upah Minimum Regional); b. Coordinating with related institution to livelihood restoration program of affected people, as stated in the LARAP document as follow: • Conducting training program; • Conducting venture capital aid program;	a. Identifying the number of local workers; b. Identifying the number and type of business opportunity that evolve nearby; c. Evaluating the livelihood restoration program for affected people; d. Regarding the information and data that need to be explored deeper, shall conduct an in-depth interview with key informants, such as with local elderly representatives; e. Monitoring workers recruitment relevant to qualifications;	The implementation of job and business opportunity on the period of July to September 2019 consist of; • The Project for terminal construction under Package 1 started on October 29th,2018. The number of local people that recruited during the respective period was 156 people or equal to 15.51% in July and August, of a total of 1.006 workers, 157 people or equal to 15.38% in September, of a total of 1.021 workers. The percentage of local people that recruited still below 20% due to the activity needs a particular skill to be conducted, even though for non-skill recruited prioritized for people. • The Project for breakwater, seawall, channel dredging under Package 2, started in April 2019. The local number people that were recruited during the respective period was 41 people or equal to 14.18% on July of total worker about 289 people, 60 people

				• Conducting new business activity program • Conducting; marketing assistance program • Conducting equipment aid program; c. Coordinating with Pusakanagara and Pusakajaya sub-district due to job vacancy information **[a: DGST, CP1, CP2, CP3, CP4, b,c:DGST]**	f. Monitoring of safety work implementation especially in the construction phase; **[c, d: DGST]** **[a, b, e, f: CP1, CP2, CP3, CP4]**	or equal to 17.86% on August of total worker about 336 people, 43 people or equal to 15.19% on September of total worker about 283 people. • The project for access road construction under Package 4 started in October 2018. The number of local people that recruited during the respective period; 242 or equal to 24.90% of 972 total workers in July, 256 people or equal to 27.77% in August, while on local recruited in September is still in progress. The implementation of the Livelihood Restoration Program on the period of July to September 2019 consists of Forklift operational training, Rampus Net (Jaring Rampus) assembly training, Basic Safety Training (BST), Welding Training, Security Training, and Cleaning Service Training • From July to September 2019, Forklift operational training held for four batches, Total participants were 100 people. The training aims to enrich the participant's skills, so they have an equal opportunity for related job vacancies. On the other hand, the training helps the participants (come from people affected) how to operate the crane with capacity under 100 tons, and operate the forklift with maximum capacity is 15 tons. The participants receive a certificate, useful for requirements in related job opportunities. The requirement, as stated on the Workforce Ministry regulation about loading and transport vehicle operator Class II operator, consists of: – Education: Junior high school/equal – Experience: 1 year – Minimum age: 19 years – Health: good body condition – Pre-qualification: K3 license and workbook • Rampus Net assembly training held on August 1st to 3rd, attended by 44 participants from fisheries. Training aims to support the fishermen to assembly the Rampus Net bases on national standards that could maximize the result and met the national requirements. Based on pre-assessment shown that the election of Rampus Net is by fisheries

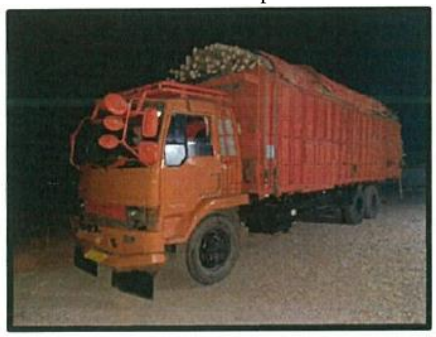
						department and fishers requirement that could be set up outside the Patimban Port Development. • Basic Safety Training (BST) batch 2 is training for offshores safety activities. This training material consists of general information to mitigate and preventive action due to fire damage, survival technique, and other responsibility in offshore activities. This training to ensure that fishers understand potential hazard on offshore activities (on boat) and conduct emergency action by related hazards. Total participants are about 249 people who come from people affected, for the graduated participants achieve certificate and sailing id book log. • Welding training was held for the first batch on 2nd to 24th August 2019 and attended by 38 participants. This training aimed to improve community skills in the welding area, so in the future, they are ready for works in the industrial area. • Security training held batch 1, and 2 was held on 16th to 20th August 2019 and attended by 46 participants. The security training conducted to prepare the people affected skills, especially for work as security. In this training, the participant learns how to work as security, how to receive guests with manners, how to handle emergency cases. • Cleaning service training was held on 15th to 19th August 2019 and attended by 31 participants. The aim of cleaning service training is to give information and knowledge to the participant on how to do daily cleaning service, basic cleaning service, and general cleaning service.  Forklift Car Introduction

						 Security Training Opening Session  Welding Training Practice  Cleaning Service Training Session

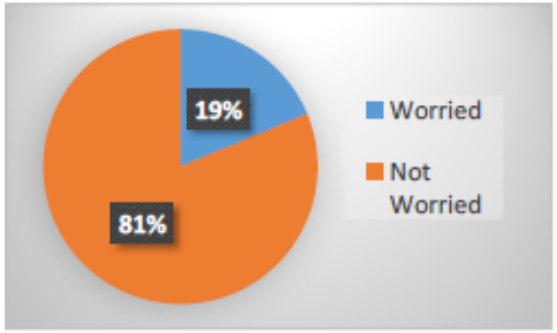
						 Rampus Net Assembly Training Practice  BST Sea Survival Practice  BST Fire Fighting Practice
3.	**Heavy equipment and materials mobilization**					
3A	Deterioration of air quality (TSP and emission)	Concentration of SO_2, CO, NO_2, and TSP doesn't exceed	Heavy equipment and materials mobilization	a. Heavy equipment and material mobilization using construction access road of Patimban	Conducting air quality laboratory analysis, after which the results are compared with	CP 1 Implementation:

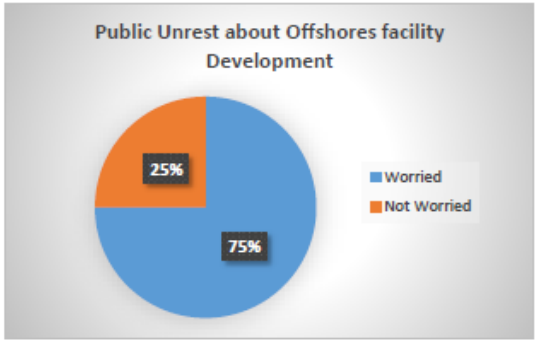
		air quality standard based on Government regulation No. 41 years 1999 on Air pollutions control.		seaport which is relatively quiet and away from settlements (non-asphalt pavement); b. Closing the tanks of transporting material vehicle with tarps; c. Transporting the materials to the location using the proper operation vehicle that passed the KIR test (in testing to see if the vehicles are well maintenance); d. Developing of washhouse to clean transporting vehicle wheels before out from project site location; e. If there are materials spills on the passing road from construction materials mobilization, it shall be cleaned as soon as possible; f. Watering the road periodically. **[CP1, CP2, CP3, CP4]**	air quality standards based on Government Regulation No. 41 of the year 1999. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlled status with a critical level. **[CP4]**	The traffic condition affected by the project was monitored periodically. Vehicle volume survey was conducted once a month. CP 2. Implementation:   Mobilization of Light equipment and material are using project access road (Nighttime) and relatively quiet and away from settlements   Mobilization of heavy equipment were conveyed by sea transportation (Prepare for seawall construction) CP 3. Implementation: Work has not yet started CP 4. Implementation: 1. Air quality measurement was conducted in April 2019. The monitoring results of air quality with five parameters (SO2, CO, NO2, PM10, TSP) were below the threshold, as shown in attachment. The next measurement will be conducted in October 2019.

						2. Roads are sprinkled periodically to reduce dust pollution by road sprinklers, so that dust pollution tends to be under control and limits.   3. Close the Truck of transporting material vehicle with tarps and installed wash-house for vehicle wheels.   4. Proper operation vehicle that passed the KIR test (in testing to see if the vehicles are well maintenance); 

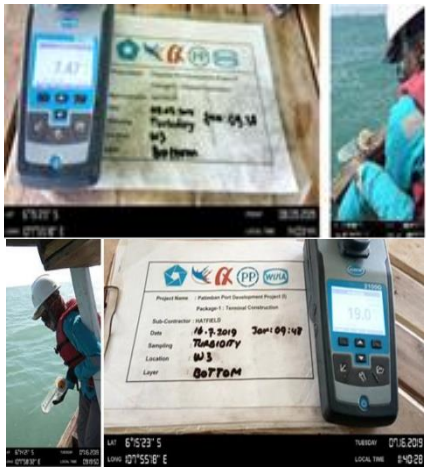
3B	Land traffic disruption	No occurrence of traffic jam as the effect of heavy equipment and materials mobilization	Heavy equipment and materials mobilization	a. Coordinating with transportation institution to install traffic sign around the development of Patimban seaport location under ministerial regulation No.13 year 2014 about the traffic sign; b. Coordinating with police agencies to organize traffic around the Patimban seaport development location; c. Installing sign of construction warning signs in the entry and exit access of Patimban seaport development location; d. Arranging schedule of heavy equipment and materials mobilization not in the vehicle peak hours; e. Coordinating with police officer by putting them in some locations; f. Implementing ANDALLALIN (Assessment Impact of Traffic) recommendation. **[DGST, CP1, CP2, CP3, CP4]**	a. Monitoring traffic condition; b. Identifying the accident number that occurred.	Implementation Package 1: The traffic condition affected by the project was monitored periodically. Vehicle volume survey was conducted once a month. During July to September 2019, no accident and traffic jam related to the project was reported. No recorded occurrence of traffic jams at Pusakanagara road going to Jobsite confirmed, because construction equipment and materials were being transported during night time (as requirements).in addition, the type/weight of equipment and speed were restricted.  Land Traffic Inspection  Transportation at night time Implementation Package 2: No vehicle activities related to the project reported from July to September. Therefore, no accident was reported.

						Implementation Package 4: Equipment with appropriate and sufficient signs. Completing with flagman for traffic control. See the attachment of land traffic conditions and accident numbers.
3C	Sea traffic disruption	No occurrence of ship collision on the Patimban area	Heavy equipment and materials mobilization	a. Coordinating with UPP (Port Operator Unit) Pamanukan about material transporting route on the sea; b. Coordinating with Tanjung Priok Navigation District about materials transporting sailing line; c. Socializing materials transporting route to the fishermen; d. Organizing material transporting time; e. Implementer contractors open the communication with the ships around the materials transporting route. **[DGST, CP1, CP2, CP3, CP4]**	a. Monitoring sea traffic condition; b. Identifying the accident number that occurred. **[CP1, CP2, CP3, CP4]**	Sea traffic condition related to the project is monitor periodically. Implementation Package 1: From July to September 2019, no recorded occurrence of ship collision at Patimban waters. Offshore activities coordinated with Patimban harbor master and necessary permits have secure before the start of works.  Sea traffic condition in the construction area Implementation Package 2: No significant sea activity conduct from July to September. No accident was reported.
3D	Public unrest	No public unrest occurrence.	Heavy equipment and materials mobilization	a. Socializing transporting route of heavy equipment and materials mobilization to the nearest community; b. Socializing the materials transporting route to the fishermen; c. Establishing a Grievance Redress Center /Fast	a. Measurement of the amount of grievances raised of heavy equipment and materials mobilization activity. The interview survey shall acquire its identification. b. Measurement of the amount of protest and demonstration raised to the representative	Implementation Package 1 Interview with the people around the project site conducted in July 2019, the sample number is determined by purposive sampling for people affected. The respondents select from various backgrounds such as local leaders, people affected, and fishers. Public unrest percentages about heavy equipment and material mobilization seen in the chart below.

				Response Team to accommodate and responds to public unrest related to the Patimban Seaport; d. Making community discussion forums with local government to find a solution to problems aroused by the development activity. **[DGST, CP1, CP2, CP3, CP4]**	office. The data shall collect by evidence of related reports to the local government, or to project implementing representatives (secondary data) c. Regarding the information and data that need to be explored deeper, shall conduct an in-depth interview with key informants, such as with local elderly representatives; d. The sampling population is calculated purposively. **[DGST, CP1, CP2, CP3, CP4]**	To maintain the public unrest condition to meet the minimum level for people not to feel worried, the contractors conducted the material and heavy equipment transportation by night time to avoid traffic jams. 
4.	**Reclamation and off-shores facility development**					
4A	Deterioration of seawater quality (TSS).	TSS concentration below environment quality standard based on Kepmen LH (Ministerial Decree of Environmental) No 51 year 2004 Seawater quality standard Appendix I (80 mg/L).	Reclamation activity and off-shore facility development	a. Reclamation activity is conducted in the water area which has been bordered by seawall; b. Minimizing dumping volume as much as possible by adopting the newest technology, such as Cement Pipe Mixing. **[CP1, CP2]**	Conducting seawater quality laboratory analysis, after which the results are compared with the air quality standard quality based on Kepmen LH (Ministerial Decree of Environmental) No. 51 year 2004. Furthermore, monitoring results are converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlling status with the critical level. **[CP1]**	Implementation Package 1 • Reclamation activity is still Trial Test for CPM (Cement Pipe Mixing), To prevent the increasing TSS value, around of CPM has been bordered by rock bund as temporary seawall.  CPM trial test area is covered by temporary bordered with rock-bund (Geotextile material)
4B	Fishing ground change.	No report of fishing area disruption and/or decreasing of fishers' production/income	Reclamation activity and off-shore facility development	a. Communicating and socializing with the fishermen community about reclamation and off-shores facility development. b. Making basic Rumpon (artificial fish shelter) according to the Regulation of Marine and fisheries ministry	a. Collecting data of number of grievances raised by analyzing the results of consultations taken during the survey; b. Monitoring fisheries production and its condition by interview with fishers.	Implementation Package 1 a. There are no related complaints number based on the contractor's survey. b. Rumpon (artificial fish shelter) is under preparation. Meanwhile, based on community assessment, the majority of the community is asking for gillnet training (Rampus) as a program to restore their livelihood. Therefore, the priority program for the community is Assembling

				Republic of Indonesia No. 26/Permen-KP/2014 around Patimban waters out of DLKP (Regional Sphere of Interest) and DLKR (working area) Patimban seaport. **[DGST]**	**[CP1]**	Rampus Net that already conducted for 4 batches with the number of participants, 176 people in total (as described in LRP training).
4C	Public unrest.	No public unrest occurrence.	Reclamation activity and off-shore facility development	a. Socializing to the fishermen about Rumpon (artificial fish shelter) installation plan according to the Regulation of Marine and fisheries ministry Republic of Indonesia No. 26/Permen-KP/2014 around Patimban waters out of DLKP (Regional Sphere of Interest) and DLKR (Area Work) Patimban seaport; b. Making Grievance Redress Center/Fast Response team to accommodate and respond to public unrest related to the Patimban Seaport development project; c. Organizing community discussion forums with local governments to solve problems that arise during the development activity. **[DGST, CP1, CP2]**	a. Identification of the number of grievances risen due to reclamation activity b. Identification by interview using questionnaire (primary data); c. Identification of the number of people protesting and demonstrating against the project implementing representative office shall gain from such cases reported to the local government or the project implementing representative office (secondary data); d. Regarding the information and data that need to be explored deeper, shall conduct an in-depth interview with key informants, such as with local elderly representatives; e. The sampling population is calculated purposively. **[DGST, CP1, CP2, CP3, CP4**	Implementation Package 1 Interview with the people around the project site in July 2019. The sample number is determined by purposive sampling for people affected. The respondents are select from various backgrounds such as local leaders, people affected, and fishers. Public unrest percentage about reclamation and offshore facility development is seen in the chart below.  To minimize the public unrest due to reclamation activity and offshore facility development, the Contractor socialized to communities, up to date technology that is used such as Cement Pipe Mixing technology and the duration of the activity.
5	**Dredging and dumping**					
5A	Deterioration of seawater quality (TSS).	TSS concentration below environment quality standard based on Kepmen LH (Ministerial Decree of Environmental) No	Dredging and dumping.	a. Constructing seawall in the early phase; b. Installing silt protector around the dredging area by grab dredging;	Conducting TSS measurement, after which the results compare with the seawater quality standard based on Kepmen LH (Ministerial Decree of Environmental) no. 51 year 2004. Furthermore, monitoring	CP1 Implementation: From July to September 2019, the TSS concentrations meet the Indonesian standard according to Ministerial Decree of Environment No. 51 Year 2004. • There were 14 days in July that the TSS concentration

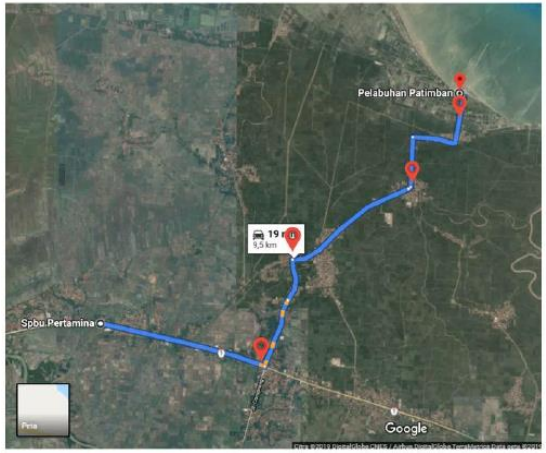
		51 year 2004 Seawater quality standard Appendix I (80 mg/L).		c. Disposing dumping materials, not at one spot but dispersing them in dumping area; d. Using proper equipment for dredging and dumping. **[CP1, CP2]**	results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with the critical level. **[CP1]**	at impacted sites were more than 10 mg/L, particularly, at the shallower sites closer to shore (e.g., sites W1, W2, W3, W4, and W11). It recorded the TSS concentration at shallower sites closer to shore were occasionally higher than 20 mg/L above reference site in Week 32, Week 33, Week 34, Week (i.e., on 3 July 2019, 10 July 2019, 14 July 2019 and 17 July 2019). The TSS concentration at site W11 at surface and bottom were higher than 80 mg/L on 10 July 2019. In July, just 2 (two) days, the dredging activities conducted on July 30 & 31, 2019 only. So, the increasing TSS concentration on July 10, 2019, was not affected due to construction (dredging) activities. • In August, there were 20 days that TSS concentration at impacted sites were more than 10 mg/L, particularly at the shallower sites closer to shore (e.g., sites W1, W2, W3, W4, and W11). It recorded that TSS concentration at the shallower sites closer to shore were occasionally higher than 20 mg/L above reference site Week 35, Week 36, Week 37, Week (i.e., on 23 July 2019, 27 July 2019, 28 July 2019, 29 July 2019, 30 July 2019, 31 July 2019, 6 August 2019, 7 August 2019, 13 August 2019 and 19 August 2019). TSS concentrations across the study area ranged from 1.89 mg/L to 54 mg/L across all sites; the average TSS concentration over the period was 14.82 mg/L with standard deviation (SD) of 9.42 mg/L. Turbidity was range between 1.53 to 43.80 NTU across all sites; the average turbidity level over the period was 12.02 NTU. TSS concentration and turbidity at surface and bottom layers were similar. Sampling data results are attached here (Table 2 to 7).

						  Sampling Activity  Silt protector (Rock Bund) by Geotextile to protect & control the silt dispersion due to the Dredging & Cement Pipe Mixing Trial Test activity.
6.	**On-shore facility development**					
6A	Increasing water run-off rate.	No flooding.	On-shore facility development.	a. Make drainage that can drain water run-off; b. Optimizing of RTH (Green Open Space) on the unused land; c. Coordinating with Directorate General of Highways (Direktorat Jenderal Bina	Direct monitoring on the state and function of drainage channel and RTH (Green Opened Space). **[DGST]**	DGST Implementation: The activity has not yet started.

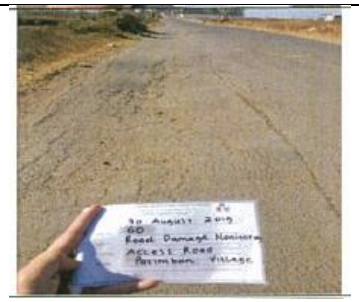
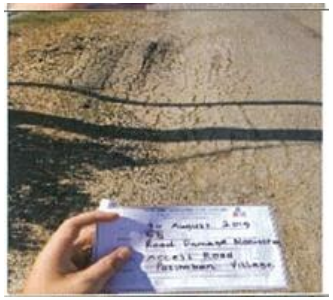
				Marga) and Irrigation Agency, related to drainage construction in the seaport location. **[DGST]**		
6B	Public unrest	No public unrest occurrence	On-shore facility development	a. Develop a new irrigation channel to replace disconnected irrigation channels affected by On-shore facility development; b. Develop underpass/fly over or moving th*e* road on the public access road which is cross with Patimban seaport access road; c. Develop complaint center/fast response team to accommodate and response public unrest to the Patimban Seaport development; d. Develop a community discussion forums with local governments to solve the problem that arose when development activity. **[DGST]**	a. Monitoring of new irrigation channel as replacement of disconnected irrigation channel; b. Monitoring underpass/flyover on the public access road which is cross with Patimban seaport access road c. Measure of the number of anxiety due to On-shore facility development activity; d. Measurement conducted by interview with questionnaire toolkit (primary data); e. Measure the amount of people protest and demonstration to the initiator representative office taken from local government or office representative (secondary data); f. Regarding the information and data that need to be explored deeper, shall conduct an in-depth interview with key informants, such as with local elderly representatives; g. The sampling population is calculated purposively. **[DGST]**	The activity has not yet started.
Managed other environmental impact						
CONSTRUCTION PHASE						
2.	**Procurement of Labor and Basecamp operation**					
2A	Deterioration of seawater quality.	The worker's domestic waste does not pollute seawater	Procurement of labor and	Installation of portable toilet and wastewater processing facility such as septic tank and its maintenance	Confirmation and maintenance of sanitary facility, wastewater management facility. **[CP1, CP2, CP3, CP4]**	Contractors implemented the wastewater management and sanitary system at the job site and workers' accommodation. Maintenances are scheduled periodically (housekeeping).

			Basecamp operation	**[CP1, CP2, CP3, CP4]**		All non-hazardous waste coming from marine activity areas are stored at the jetty or causeway before they are disposed by the licensed waste transporter (3rd Party). Designated bins near the project site and site office area are also collected by the waste transporter (3rd Party). PTRPW has collaborated with BANK SAMPAH (local provider form Patimban Village) for Industrial waste management.  Toilet  Septic tank  Toilet portable with treatment (Septic-tank)

						  Type of Waste separation bin and maintenance by housekeeping   WWTP is being monitored and maintenance periodically
2B	Appearance of infectious diseases.	The number of patients and infectious diseases is not increasing related to workers in the construction phase.	Procurement of labor and Basecamp operation	a. Coordinating with related institution and NGO due to HIV/AIDS prevention program, including socialization about sexual infectious diseases prevention; b. Coordinating with related institutions due to the treatment for sexual infectious disease patients, gonorrhea, and syphilis by injection and oral method in the Pusakanegara public health center (Puskesmas). Routine examination (every 3 months) by VCT (Voluntary Counseling and Testing) method; c. Cooperating with Warga Peduli AIDS (WPA) – HIV/AIDS Community Concern at the village level to conduct ODHA positive	a. Collecting report about implementation of HIV / AIDS prevention program; b. Collecting maintenance report of sanitary facility, wastewater management facility, and garbage dump; c. Identifying the number of patients comparing with data before construction. **[CP1, CP2, CP3, CP4]**	• To encourage the awareness of sexually transmitted diseases dissemination, the contractors conduct toolbox meetings and explain the concern of transmitted sexual diseases (also for HIV AIDS). The contractor collaborates with Subang Health Agency and ISOS International Paramedic to implement public awareness of sexually transmitted diseases.  Toolbox meeting related to prevent dissemination of sexually transmitted diseases

				activity (People with HIV / AIDS), such as gathering activity. d. Developing sanitary facility, temporary garbage collection place (TPS), and processing facility **[CP1, CP2, CP3, CP4]**		
3.	**Heavy equipment and materials mobilization**					
3A	Road damage	Minimized road damage	Equipment and materials mobilization	a. Choosing the as minimum as possible for transporting equipment and material that exceeds road capacity; b. Material transportation for construction shall be based on road class and driving license; c. Heavy equipment shall meet the requirement of directorate general of land transportation regarding Technical guidelines for the massive vehicle operation on the road (Ministry of Transportation Regulation Number PM 32 Years 2016; d. Rehabilitation of road if there is damage caused by project activity; e. Vehicle using tarpaulin f. Coordinating with Directorate General of Highways (Direktorat Jenderal Bina Marga) and Irrigation Agency of Subang Regency in managing (repairing) if there is Road damage. **[CP1, CP2, CP3, CP4]**	Monitoring directly of road condition Analysis based on consultant survey **[CP1, CP2, CP3, CP4]**	Package 1: The contractor uses the public road for access to the site is restricted to light construction equipment and transporting during night time with limited speed. The road condition shows that no damage caused by the Patimban Port activity (No road damage reported from July to September 2019).  Road damage inspection route.

						 The Road Condition Package 2: During the construction of land clearing, cut, and fill for site office Package 2 in July, many trucks passed the access road to mobilize materials. For the damaged caused by its activities, the contractor will repair the road condition  Land clearing, cut and fill works

						  Road condition in front of contractor facility Sea route used for the distribution/transportation of material and heavy equipment to avoid road damage. Package 3: The activity has not yet started. Package 4: Road repairs have implemented.
3B	Increasing noise.	Noise intensity, according to Ministerial decree of environment ministry No. Kep. 48/MENLH/II/1996 .	Equipment and materials mobilization.	a. Heavy equipment and materials mobilization using Patimban seaport construction access road which is relatively quiet and away from settlements; b. Heavy equipment and materials mobilization are not conducted in convoy; c. Vehicle speed setting; d. Using proper vehicle. **[CP1, CP2, CP3, CP4]**	Conducting noise laboratory analysis, the results shall be compared with the noise standard refer to Ministerial Decree of Environmental (Kepmen LH) No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of	CP 1 Implementation: The traffic condition affected by the project was monitored periodically. Vehicle volume survey was conducted once a month. CP 2. Implementation: The activity has not yet started CP 3. Implementation: The activity has not yet started CP 4. Implementation: 1.Trucks and tools are maintained periodically;

					environment quality change and critical level. **[CP4]**	2. Noise measurements have been conducted on April 2019. The data result is shown in attachment (table 9) Only STA 0 is above the standard, this station is located along the Pantura, so this may not derive from the construction activities.   STA 0 STA 2+700 The situation around of noise sampling point
4	**Reclamation and Marine Facility Construction (Supplementary Note on Approved AMDAL/EIA)**					
4A	Disturbance of fishing ground.	No disturbances on marine biota (nekton and benthos)	Reclamation and Marine Facility Construction.	N/A	a. Monitoring regarding the complaint received and analyze based on consultant survey; b. Monitoring the fishery condition and productivity by interview the fishermen. **[CP1]**	CP1 Implementation: In reference to the baseline survey results, a total of 182 individual fish, crustaceans, and Mollusca comprising 16 taxa were recorded during the baseline survey: *Amusium Pleuronectes, Arothron sp., Engraulidae sp., Eleutheronema tetradactylum, Gerres filamentosus, Harpiosquilla raphidea, Johnius sp., Leiognathus equulus, Moolgarda sp., Nemipterus japonicas, Penaeus merguiensis, Saurida tumbil, Selaroides leptolepis, Siganus sp., Solea solea*, and *Terapon puta.* The most abundant fish species found within the area are *Leiognathus equulus* (125 individuals) and *Engraulidae* sp. (18 individuals), while the most abundant crustacean species are Harpiosquilla *raphidea* (seven individuals) and *Penaeus merguiensis* (six individuals). Species richness ranged from three species at site N1 (west study area) and N3 (east study area) to 10 species at site N4 (north study area, near the spoil ground).
5.	**Dredging and Disposal (Supplementary Note on Approved AMDAL)**					
5A	Disturbance of Marine Life (Nekton and Benthos)	Sediment quality is not deteriorate	Dumping activity	N/A	a. Monitoring of dredging material sediment quality before dumping b. Bathymetry survey in dumping location c. **[CP1]**	CP1 Implementation: Baseline of lead (Pb) in the sediment (see table 10) exceeded the standard 1 and 2, which consider as reference levels; however, it met standard 3, which is suitable as the standard for this monitoring activity based on the EIA document. (Standard 3 is the level that aquatic life may be affected under Canadian Sediment Quality Guidelines (SQG) for the Protection

						of Aquatic Life, while standard 1 and 2 are just screening levels.) Pb concentration doesn't exceed reference levels (standard 1 and 2) has already occurred under the baseline condition. So we understand it comes from natural phenomena. Also, construction works that cause Pb pollution have not conducted in the project. Thus, we conclude that specific mitigation measures are not necessary at this moment. However, we will watch Pb concentration together with other parameters carefully, and if Pb concentration becomes deteriorate due to the construction work, we will implement necessary mitigation measures.
6.	**On-shore facility development**					
6A	Deterioration of air quality (TSP and emission)	Concentration of SO_2, CO, NO_2, and TSP doesn't exceed air quality standard based on Government regulation No. 41 year of 1999 on Air pollutions control	On-shore facility development	a. Maintenance of trucks and equipment to keep them. In good condition; b. Using loading sheets whenever transporting construction materials (if necessary); c. Provide guardrail from iron sheeting with a minimum height of 2.5 meters (if necessary). **[DGST, CP3, CP4]**	Conducting air quality laboratory analysis, after which the results shall be compared with the air standard quality based on PP No. 41 year of 1999. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with a critical level. **[CP4]**	DGST Implementation: No Data Record CP 3. Implementation: The activity has not yet started CP 4. Implementation: 1.Air quality measurement was conducted in April 2019. The monitoring results of air quality with 5 parameters (SO_2, CO, NO_2, PM_{10}, TSP) were below the threshold, as shown in attachment. 2.Roads were sprinkled regularly to reduce dust pollution. Dust pollution was tended to be under control and within limits.  Road sprinkled by water spray  Road cleaning due to materials spill

						3.Building washing places for vehicle wheel Cleaning. Every construction vehicle operating at public roads undergo a vehicle wheel wash first. Washing places for vehicle wheel cleaning. Every construction vehicle operating at public roads undergo a vehicle wheel wash first.  4.Vehicle feasibility check  5.Material transport trucks are required to provide loading sheets. 

6B	Increasing noise.	Noise level is below environment quality standard based on Ministerial Decree of Environmental (Kepmen LH) No 48 Year 1996 about Noise level standard.	On-shore facility development.	a. Implementing regularly maintenance of trucks and equipments to keep them in good conditions to be operated; b. Avoiding construction activity that causes noise at night, such as mounting pile. **[DGST, CP3, CP4]**	Conducting noise parameter laboratory analysis, the results shall be compared with the standard noise quality based on Ministerial Decree of Environmental (Kepmen LH) No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and critical level. **[CP4]**	C4 Implementation: 1. Regular maintenance of trucks and equipment to keep them in good condition. 2. There are no construction activities that cause noise at night. 3. Noise measurements have conducted on April 2019. Conducting noise testing at 3 points during the construction process every 6 months. According to laboratory data result attached herewith (as shown in Table 9), the baseline data, namely; STA 0 +000; STA 2 + 700 and STA 7 +000, in October 2018, the measurement results showed that the STA 0 + 000 noise level have had exceeded the required threshold before the activity. While for STA2 700 and STA 7 +000, it didn't exceed the required threshold.
6C	Deterioration of seawater quality	Seawater quality is not deteriorated drastically because of project activity.	On-shore facility construction	Reducing or regulating wastewater discharge volume produced by former fishpond location during landfill process. **[DGST, CP3, CP4]**	Conducted sampling of seawater, after which the results were compared with Ministerial Decree of Environmental (Kepmen LH) No. 51 year of 2004. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with a critical level. **[CP1]**	CP1 Implementation: CP1 implemented the waste management and sanitary system at the Jobsite and workers' accommodation. Wastewater (Domestic source) Management :  The wastewater is produced from the Project activities, particularly from the domestic activities of the workers from the toilet, is flowed to septic tanks biotech. The wastewater that enters the bio septic tank enter in the first part, then filtered and flowed to the second part, in the second part the waste is decomposed by bacteria and flowed to the third box to be further decomposed. The rest of the decomposition from the third part will flow out to the drainage after going through a disinfectant tube that disinfects the waste safely for the environment.

						Hazard-waste (Industrial source) Management :  To prevent the hazard contamination to the sea, contractor has managed and transferred hazardous waste (used oil) from vessel to temporary shelter of hazard waste, and then they will be transported by transporter (refer to the Environment Permit from Ministry of Environment and forestry) dated July 25, 2019. The volume is 27 drums x 200 liters = 5.400 liters wastewater volumes.
6D	Disruption of terrestrial fauna (bird)	Presence of habitats for terrestrial fauna	On-shore facility development	a. Provide new habitat (such as plant mangrove) for terrestrial fauna and maintain that habitat; b. Workers are not allowed to disturb terrestrial fauna around activity locations. **[a; DGST, b; CP1, CP2, CP3, CP4]**	a. Reporting of the newly created habitat; b. Direct monitoring in the fields. **[DGST]**	The activity has not yet started
6E	Disruption of terrestrial flora	Presence of habitats for terrestrial flora	On-shore facility development	a. Provide new habitat (such as planting mangroves) for terrestrial flora and maintain that habitat b. Workers are not allowed to disturb terrestrial flora around the activity locations. **[a; DGST, b; CP1, CP2, CP3, CP4]**	Reporting of the newly created habitat. **[DGST]**	The activity has not yet started
7.	**Access road development**					
7A	Deterioration of air quality (TSP and emission)	Concentration of SO_2, CO, NO_2, and TSP doesn't exceed air quality standard	Access road development activity	a. Implementing regularly maintenance of trucks and	Conducting air quality laboratory analysis, in which the results shall be compared with the air standard quality	CP 3. Implementation: The activity has not yet started CP 4. Implementation:

		based on Government regulations No. 41 years 1999 on Air pollutions control		equipments to keep them in a good conditions to be operated. b. Using loading sheets on truck that bring construction materials (if necessary); c. Develop guardrail made of iron sheeting with a minimum height of 2.5 meters (if necessary). **[CP3, CP4]**	based on Government Regulation No. 41 years 1999. Furthermore, monitoring results are converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlled status with a critical level. **[CP4]**	1. Air Quality measurements had been conducted in April 2019. The laboratory data results are attached here, as shown in table 9.  2. Roads are sprinkled regularly to reduce dust pollution. Dust pollution was tended to be under control within limits & speed control signed.  The preventive action for dust polluted by Speed control sign for project vehicles on project access road

						3. Using covered by tarps on truck that bring construction materials & use the access road for transportation  4.Project access road & Vehicle feasibility check 
7B	Increasing of noise	To maintain noise level below environment quality standard based on Ministerial Decree of Environment (Kepmen LH) No 48 year of 1996 about Noise level standard	Access road development activity	a. Maintenance of trucks and equipment to keep them in good condition; b. Avoiding construction activity that cause noise at night. **[CP3, CP4]**	Conducting noise parameter laboratory analysis, the results shall be compared with the standard noise quality based on Ministerial Decree of Environment (Kepmen LH) No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and critical level. **[CP4]**	CP 3. Implementation: The activity has not yet started CP 4. Implementation: 1. Trucks and equipment are maintained periodically. 2. Noise measurements had been conducted on April 2019. The data results are attached herewith (Table 9) 3. The next measurement will be conducted in October 2019
7C	Deterioration of surface water quality	Maintain surface water quality below environment quality standard based on Government Regulation No. 82 year 2001 on Water	Access road development	Prevention to reduce the turbidity of water bodies such as by installation of drainage channel or emergency retention pond during the construction process **[CP3, CP4]**	Monitoring TSS concentration, using turbidity meter **[CP4]**	CP 3. Implementation: The activity has not yet started CP 4. Implementation: Surface Water sampling

		quality management and Water pollution control				 Baseline No Week Date Parameter Results of STA 0 STA 2700 STA 7000 Standard 1 1 22/10/2018 TSS 12,2 11,6 385,8 400 1 36 01/07/2019 TSS 24.6 14.6 183.5 400 2 37 08/07/2019 TSS 538 39.3 328.9 400 3 38 15/07/2019 TSS 119.5 22.5 191.5 400 4 39 23/07/2019 TSS 212.0 27.2 234.5 400 5 40 29/07/2019 TSS 188.8 192.7 190.3 400 Baseline No Week Date Parameter Results of STA 0 STA 2700 STA 7000 Standard 1 1 22/10/2018 TSS 12,2 11,6 385,8 400 1 41 05/08/2019 TSS 421,9 38 106,4 400 2 42 12/08/2019 TSS 111,3 130,6 235,8 400 3 43 19/08/2019 TSS 128,3 27,4 65,4 400 4 44 26/08/2019 TSS 60,4 303,1 82,5 400 Note : • According to Government Regulation No. 82 of 2001 concerning water quality management and water pollution control, the threshold concentration of the TSS is 400 mg / L for class IV water criteria, where designated water can be used to irrigate plantations and / or other designated ones that require water quality equal to used. • From the measurement result table, it is known that from 3 measurement points of surface water quality, namely STA 0 + 000; STA 2 + 700 and STA 7 + 000, there was one measurement point that exceeded the threshold at STA 0 + 000 in the second week of measurement. The TSS concentration exceeded the required threshold of 421,9 mg / L. The condition caused by the bridge renovation activities at STA 0 + 000. The increase in the value of the TSS is only valid while the following week has returned down

7D	Increasing of water run-off rate	Excessive run-off does not occur	Access road development	Installation of drainage channel or emergency retention pond during construction process **[CP3, CP4]**	Direct monitoring in the fields **[CP4]**	CP 3. Implementation: The activity has not yet started CP 4. Implementation: 1. Creating drainage channels during the construction process  2. Creating an emergency retention pond during the construction process.  3.
7E	Public unrest	No public unrest occurrence	Access road development	a. Installing a bridge or other facilities to be able to cross to the access road; b. Installing fences along access road to secure safety and to prevent accidents of people or livestock; c. Establishment of Grievance Redress Center /Fast Response Team to accommodate and respond to public unrest related to the Patimban Seaport Development Project; **[CP3, CP4]**	a. Identification of the number of grievances raised due to access road operation activity; b. Identification by interview process using questionnaire (primary data) c. Identification of number people protest and demonstrating against the project implementing representative office shall be achieved from related reports to local governments or to project implementing representative office (secondary data).	Handling complaints and problems due to access road development is still in progress. Until September 2019, the contractor already repair 18 houses impacted by access road development located at Pusakaratu Village. 47 houses have registered located at Pusakaratu Village, 38 houses have registered at Gempol area, total of 85 houses will repairs. There are 65 families identified that their house impacted. Meanwhile, in the period of identification, the contractor gives compensation for the household by its range, 0 – 50 meters, and 50 – 100 meters from the construction point, the location identified in Pusakaratu Village, and Gempol Village. Renovations of residents' houses, which is crack, have been carried out in stages. In July, 18 houses had repair

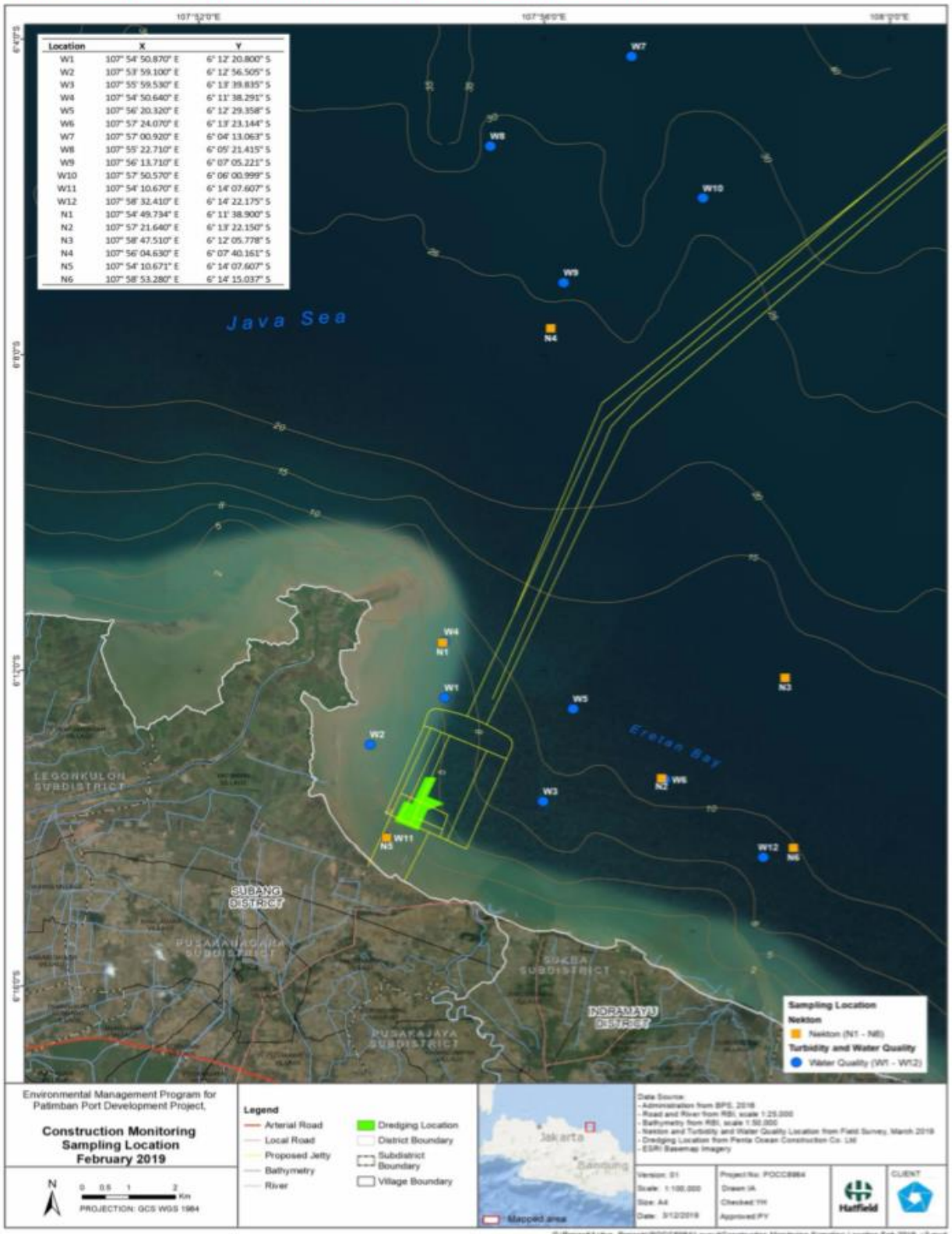
					d. Regarding the information and data that need to be explored deeper, shall conduct an in-depth interview with key informants, such as with local elderly representatives; e. Sample amount determined by purposive, based on research purposes and taken by characteristics known community. **[DGST, CP4]**	in Pusakaru Village. For August, some affected houses are still in the process of being repaired. Until now, 27 houses registered in Pusakaratu village. For Gempol Village, data collection has also carried out related to the damage to people's homes due to pile work. The number of residents' houses that are currently being recorded is around 38 houses. The data collection of affected residents' houses continues to carried out until all of them are complete.  Mr. Wahid house condition before repair  Mr. Wahid house condition after repair by contractor

						 Mr. Tanudin house condition before repair  Mr. Tanudin house condition after repair from the contractors

Note: DGST ; Directorate General of Sea Transportation, Ministry of Transportation Republic of Indonesia
CP1; Contractor of Package-1
CP2; Contractor of Package-2
CP3; Contractor of Package-3
CP4; Contractor of Package-4

2. Details on Natural Environment

Figure Survey area for the Patimban Port construction monitoring.



Source : Contractor Environmental Monitoring Report, 2019

Table 5 Quarterly Monitoring Laboratory Results (June 2019)

Parameter	Unit	Baseline (Avg)	Q1 Observed value (Min-Max)	Q2 Observed value (Min-Max)	Q3 Observed value (Min-Max)	Q1 Observed value (Avg.)	Q2 Observed value (Avg.)	Q3 Observed value (Avg.)	Indonesian Standard (Harbour Water)	Japan Standard (reference)	Q1 Number of station above standard	Q2 Number of station above standard	Q3 Number of station above standard
Physical Parameters													
Oldour		Odorless	Odorless	Odorless	Odorless	Odorless	Odorless	Odorless	-	-	-	-	-
Temperature	°C	27.62	25-35	25	27 – 29.8	31.08	25	28.9	-	-	-	-	-
Salinity	PSU	32.76	25-35	3.0 - 31.8	31.7 – 32.6	29.29	29.5	32.3	-	-	-	-	-
Dissolved oxygen (DO)	mg/L	7.87	6.6-10.9	6.24 - 9.24	4.5 – 6.37	8.15	7.1	5.7	-	-	-	-	-
pH		8.41	8.2-9.3	8.184 - 8.599	7.38 – 8.83	8.38	8.5	7.96	6.5-8.5	7.0-8.3	W3, W4, W6, W8, W9, W10 and W12	W1, W2, W3, W4, W5, W6, W7, W8, W10, W11 and 12	-
Total suspended solids (TSS)	mg/L	3.13	0.5-4	1.0-12.7	1 – 26.0	1.13	4.2	8.6	80	-	-	-	-
Turbidity (laboratory)[3]	NTU	22.51	-	1.0 - 16.2	0.7 - 24.2	-	6.2	5.7	-	-	-	-	-
Turbidity (in situ)[3,4]	NTU	7.36	2-30.6	1.7 - 19.8	1.9 - 25.1	7.37	7.3	6.9	-	-	-	-	-
Clarity / Transparency[4]	m	3.87	<0.5-8	0.4 - 9	0.4 - 3.5	5	2.6	1.9	>3	-	W1, W2, W4, W11	W1, W2, W3, W4, W5, W6,W9, W10, W11 and W12	W1, W2, W3, W4, W5, W6, W7, W8, W11, and W12
Nutrients and Anions													
Ammonia (N-NH3)	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.3	-	-	-	-
Total Phosphate (P-PO4)	mg/L	<0.005	<0.005 - 0.008	<0.005	<0.005	0.007	<0.005	<0.005	-	-	-	-	-
Sulfide, Unionized	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	-	-	-	-
Dissolved Metals													-
Cadmium (Cd)	mg/L	<0.0001	<0.0001	<0.0001 - 0.0001	<0.00001	<0.0001	<0.0001	<0.00001	0.01	0.003	-	-	-
Copper (Cu)	mg/L	<0.005	<0.005	<0.005	≤ 0.0001	<0.005	< 0.005	≤ 0.0001	0.05	-	-	-	-
Lead (Pb)	mg/L	<0.001	<0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	0.05	0.01	-	-	-
Zinc (Zn)	mg/L	<0.005	<0.005	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	0.1	-	-	-	-
Mercury (Hg)	mg/L	<0.00005	<0.00005	< 0.00005	< 0.00005	<0.00005	< 0.00005	< 0.00005	0.003	5E-04	-	-	-
Microbiology													-
Total Coliforms	MPN/100 ml	7.09	<2-7	<2 - >1600	2 - 540	<2	862.4	112.4	1,000	1,000	-	W1, W2, W3, W4, W5, W6 and W12	-
Others													
Oil and Grease	mg/L	1	<1	<1	<1	<1	<1	<1	5	-	-	-	-
Total Phenol	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	-	-	-	-
Surfactant / Detergent (MBAS)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1	-	-	-	-
Total Hydrocarbons	mg/L	1	<1	<1	<1	<1	<1	<1	1	-	-	-	-
Total Polychlorinated Biphenyl (PCB)	mg/L	<0.00001	<0.00001	< 0.00001	< 0.00001	<0.00001	<0.00001	<0.00001	1E-05	Not detected	-	-	-
Tributyltin (TBT)	mg/L	<0.00001	<0.00001	< 0.00001	< 0.00001	<0.00001	<0.00001	<0.00001	1E-05	-	-	-	-

Source : Contractor Environmental Monitoring Report, 2019

Table 6 Daily Monitoring for TSS results at Bottom & Surface-layer (1-30 June 2019)

Date		*TSS (mg/l)*											
		W12	*W1*	*W3*	*W5*	*W2*	*W4*	*W6*	*W7*	*W8*	*W9*	*W10*	*W11*
1-June-19	BL	9.4	15.0	17.1	9.0	-	-	-	-	-	-	-	-
	SL	9.7	13.9	15.4	9.5	-	-	-	-	-	-	-	-
2-June-19	BL	5.2	13.6	9.8	7.4	-	-	-	-	-	-	-	-
	SL	7.0	11.5	8.1	8.5	-	-	-	-	-	-	-	-
3-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
4-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
5-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
6-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
7-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
8-June-19	BL	8.1	6.5	6.7	9.8	-	-	-	-	-	-	-	-
	SL	5.1	5.7	7.9	5.0	-	-	-	-	-	-	-	-
9-June-19	BL	7.7	14.7	8.7	8.5	-	-	-	-	-	-	-	-
	SL	5.7	13.7	8.0	6.3	-	-	-	-	-	-	-	-
10-June-19	BL	5.6	8.8	5.6	5.7	-	-	-	-	-	-	-	-
	SL	4.8	6.0	4.4	3.9	-	-	-	-	-	-	-	-
11-June-19	BL	5.8	20.0	8.0	5.8	-	-	-	-	-	-	-	-
	SL	3.7	13.7	6.2	4.4	-	-	-	-	-	-	-	-
12-June-19	BL	9.6	17.8	8.9	7.1	-	33.9	4.8	-	-	-	-	-
	SL	4.6	12.5	5.7	5.1	-	25.0	4.2	-	-	-	-	-
13-June-19	BL	7.1	6.3	6.2	6.2	-	-	-	3.3	2.5	4.5	3.0	-
	SL	6.4	5.2	4.8	3.5	-	-	-	2.8	2.3	3.1	3.0	-
14-June-19	BL	5.2	9.5	4.6	6.3	-	-	-	-	-	-	-	-
	SL	4.5	10.3	3.7	6.1	-	-	-	-	-	-	-	-
15-June-19	BL	3.7	7.2	3.7	4.0	-	-	-	-	-	-	-	-
	SL	2.9	5.0	2.9	3.8	-	-	-	-	-	-	-	-
16-June-19	BL	5.3	16.5	6.0	5.1	-	-	-	-	-	-	-	-
	SL	3.8	16.4	4.4	3.9	-	-	-	-	-	-	-	-
17-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
18-June-19	BL	9.2	21.0	11.4	8.2	-	-	-	-	-	-	-	-
	SL	5.8	19.5	10.1	8.0	-	-	-	-	-	-	-	-
19-June-19	BL	6.8	10.9	9.2	8.2	27.4	12.1	8.9	-	-	-	-	34.8
	SL	6.0	10.3	8.3	8.0	25.4	13.3	8.4	-	-	-	-	31.4
20-June-19	BL	-	-	-	-	-	-	-	-	-	-	-	-

	SL	-	-	-	-	-	-	-	-	-	-	-	-
21-June-19	BL	4.5	11.3	5.0	4.1	-	-	-	-	-	-	-	-
	SL	4.1	9.9	4.4	2.8	-	-	-	-	-	-	-	-
22-June-19	BL	6.8	21.5	11.8	8.0	-	-	-	-	-	-	-	-
	SL	5.5	19.0	13.9	8.0	-	-	-	-	-	-	-	-
23-June-19	BL	6.3	9.8	6.5	3.4	-	-	-	-	-	-	-	-
	SL	4.4	6.9	7.6	4.7	-	-	-	-	-	-	-	-
24-June-19	BL	5.4	20.6	8.8	8.4	-	-	-	-	-	-	-	-
	SL	5.0	17.9	7.2	6.6	-	-	-	-	-	-	-	-
25-June-19	BL	8.6	24.0	9.0	6.6	29.5	29.3	8.7	5.8	6.8	3.6	4.0	34.9
	SL	7.4	21.9	6.4	6.5	30.2	27.4	6.5	4.8	2.3	3.3	8.3	37.0
26-June-19	BL	8.4	22.7	12.7	9.7	-	-	-	-	-	-	-	-
	SL	9.4	22.2	12.3	9.3	-	-	-	-	-	-	-	-
27-June-19	BL	6.1	11.0	7.8	7.2	-	-	-	-	-	-	-	-
	SL	8.7	7.7	9.2	6.6	-	-	-	-	-	-	-	-
28-June-19	BL	6.6	21.0	12.8	8.9	-	-	-	-	-	-	-	-
	SL	8.1	19.8	14.2	7.6	-	-	-	-	-	-	-	-
29-June-19	BL	7.6	20.7	11.8	7.8	-	-	-	-	-	-	-	-
	SL	7.1	19.1	13.4	9.6	-	-	-	-	-	-	-	-
30-June-19	BL	-	11.0	11.7	-	-	-	-	-	-	-	-	-
	SL	-	11.4	10.0	-	-	-	-	-	-	-	-	-

Source : Contractor Environmental Monitoring Report, 2019

Note :

- In this period, there were 6 days in which TSS at the impacted sites was more than 10 mg/L above the reference site, particularly at the shallower sites closer to shore (e.g., sites W1, W2, W4, and W11). The shallower sites closer to shore were occasionally higher than 20 mg/L above reference site in Week 29, Week 30 and Week 31 (i.e., on 12 June 2019, 19 June 2019 and 25 June 2019).
- Given site W1, site W2, site W4, and W11 were near naturally turbid areas, and 1.92 km, 1.40 km, 3.02 km and 413 m from the dredging sites, respectively, the high turbidity value in those sites were possibly influenced by naturally occurring turbid plumes that extend from the shoreline (particularly after rain events).
- W12 is a reference site, BL = Bottom Layer & SL = Surface Layer

>10 and <= 20 mg/L above reference site

> 20 above reference site and < 80 mg/L

>= 80 mg/L

Table 7 Daily Monitoring for TSS results at Bottom & Surface-layer (1-31 July 2019)

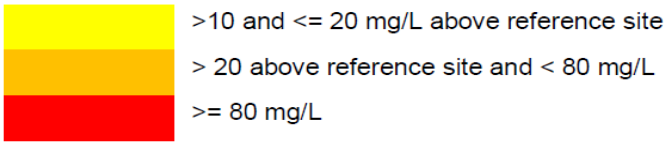
Date		TSS (mg/l)											
		W12	*W1*	*W3*	*W5*	*W2*	*W4*	*W6*	*W7*	*W8*	*W9*	*W10*	*W11*
1-Juli-19	BL	8,72	14,92	6,68	6,08	-	-	-	-	-	-	-	-
	SL	6,83	13,69	6,58	5,20	-	-	-	-	-	-	-	-
2-Juli-19	BL	7,15	15,20	9,69	7,98	-	-	-	-	-	-	-	-
	SL	7,53	15,78	9,86	5,67	-	-	-	-	-	-	-	-
3-Juli-19	BL	5,20	11,70	5,04	3,08	26,14	23,79	6,29	4,19	3,33	5,54	5,41	31,93
	SL	7,20	12,82	5,70	4,18	24,66	21,58	5,63	5,56	5,38	8,83	4,27	28,73
4-Juli-19	BL	7,93	16,03	11,07	9,01	-	-	-	-	-	-	-	-
	SL	4,50	15,78	9,04	8,75	-	-	-	-	-	-	-	-
5-Juli-19	BL	6,07	21,70	9,76	10,85	-	-	-	-	-	-	-	-
	SL	6,65	21,95	9,48	10,53	-	-	-	-	-	-	-	-
6-Juli-19	BL	10,13	27,86	18,37	14,18	-	-	-	-	-	-	-	-
	SL	8,14	25,15	14,67	14,30	-	-	-	-	-	-	-	-
7-Juli-19	BL												
	SL	-	-	-	-	-	-	-	-	-	-	-	-
8-Juli-19	BL	13,19	24,78	17,63	13,07	-	-	-	-	-	-	-	-
	SL	11,21	22,19	16,52	13,07	-	-	-	-	-	-	-	-
9-Juli-19	BL	12,58	20,59	18,49	14,42	-	-	-	-	-	-	-	-
	SL	12,19	19,85	16,52	13,44	-	-	-	-	-	-	-	-
10-Juli-19	BL	12,05	30,95	20,34	16,40	56,47	24,78						85,32
	SL	12,70	29,34	17,75	14,67	61,65	23,30	-	-	-	-	-	80,26
11-Juli-19	BL	9,83	22,07	-	-	-	-	11,06	2,52	3,05	4,18	4,04	-
	SL	8,99	21,70	-	-	-	-	9,16	2,17	3,06	4,17	5,39	-
12-Juli-19	BL	12,12	21,08	14,79	13,81	-	-	-	-	-	-	-	-
	SL	10,33	21,95	12,58	12,58	-	-	-	-	-	-	-	-
13-Juli-19	BL	15,90	28,85	19,36	19,23	-	-	-	-	-	-	-	-
	SL	13,32	26,51	15,78	19,11	-	-	-	-	-	-	-	-
14-Juli-19	BL	13,56	36,86	18,99	17,63	-	-	-	-	-	-	-	-
	SL	11,87	33,04	15,04	14,92	-	-	-	-	-	-	-	-
15-Juli-19	BL	9,97	24,16	18,37	15,90	-	-	-	-	-	-	-	-
	SL	8,52	22,81	14,30	9,16	-	-	-	-	-	-	-	-
16-Juli-19	BL	17,14	34,89	23,43	23,30	-	-	-	-	-	-	-	-
	SL	12,26	30,33	28,23	17,75	-	-	-	-	-	-	-	-
17-Juli-19	BL	16,03	21,70	18,00	17,75	32,30	14,42	13,81	-	-	-	-	52,52
	SL	14,55	19,23	17,51	19,23	32,92	17,38	12,95	-	-	-	-	38,71
18-Juli-19	BL	11,89	13,69	9,75	9,21	-	-	-	7,22	6,42	6,49	6,78	-
	SL	10,80	14,42	8,63	8,26	-	-	-	7,16	7,30	4,88	6,73	-
19-Juli-19	BL	12,82	18,25	11,26	8,31	-	-	-	-	-	-	-	-
	SL	14,06	18,62	10,87	6,76	-	-	-	-	-	-	-	-
20-Juli-19	BL	17,38	21,95	13,81	16,15	-	-	-	-	-	-	-	-
	SL	11,60	23,06	14,79	14,92	-	-	-	-	-	-	-	-
21-Juli-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-

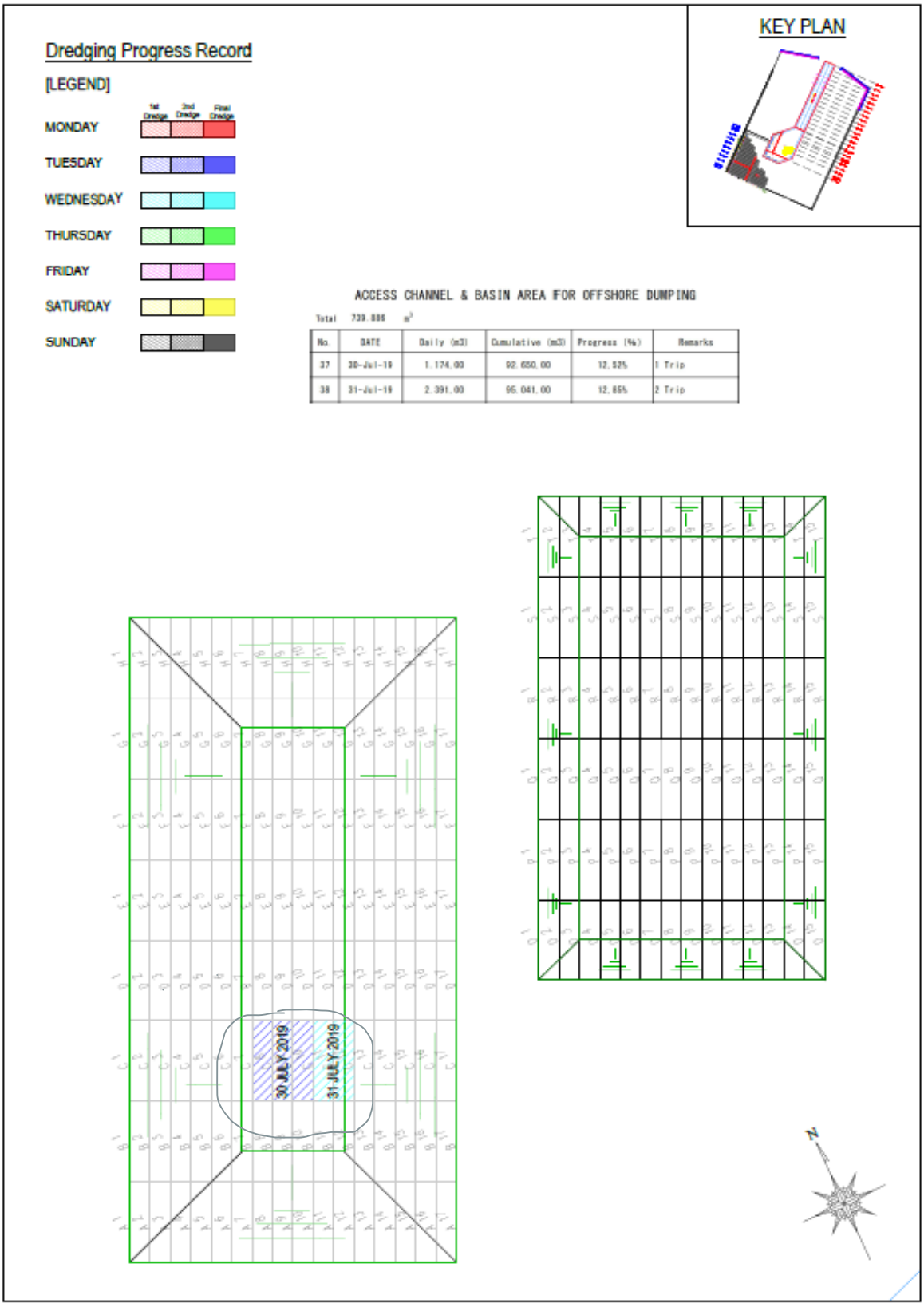
Date		TSS (mg/l)											
		W12	W1	W3	W5	W2	W4	W6	W7	W8	W9	W10	W11
22-Juli-19	BL	12,58	20,96	18,99	11,28	-	-	-	-	-	-	-	-
	SL	8,91	15,29	13,40	12,50	-	-	-	-	-	-	-	-
23-Juli-19	BL	13,32	17,38	10,90	9,67	25,03	19,11	13,56	5,28	6,20	5,56	4,87	30,82
	SL	11,76	15,80	8,10	8,70	21,30	20,80	11,40	3,80	4,30	6,10	4,40	35,60
24-Juli-19	BL	11,13	28,60	12,58	14,55	-	-	-	-	-	-	-	-
	SL	10,82	26,40	11,10	12,30	-	-	-	-	-	-	-	-
25-Juli-19	BL	13,44	30,21	14,92	14,55	-	-	-	-	-	-	-	-
	SL	11,60	29,22	13,70	10,80	-	-	-	-	-	-	-	-
26-Juli-19	BL	8,32	20,10	14,06	10,28	-	-	-	-	-	-	-	-
	SL	10,45	20,00	15,40	9,70	-	-	-	-	-	-	-	-
27-Juli-19	BL	8,19	28,97	18,12	15,04	-	-	-	-	-	-	-	-
	SL	10,42	26,10	16,20	16,60	-	-	-	-	-	-	-	-
28-Juli-19	BL	9,72	27,74	20,84	16,40	-	-	-	-	-	-	-	-
	SL	10,87	27,10	17,60	15,70	-	-	-	-	-	-	-	-
29-Juli-19	BL	7,58	29,96	12,45	11,53	-	-	-	-	-	-	-	-
	SL	9,69	26,60	10,60	8,60	-	-	-	-	-	-	-	-
30-Juli-19	BL	7,58	12,29	6,94	7,16	30,33	17,01	9,97	2,87	5,39	3,86	3,46	34,77
	SL	7,92	12,00	7,00	5,00	32,20	18,10	8,20	3,60	4,60	5,40	3,90	35,80
31-Juli-19	BL	7,26	27,62	11,37	9,48	-	-	-	-	-	-	-	-
	SL	8,08	19,80	10,70	9,20	-	-	-	-	-	-	-	-

Source : Contractor Environmental Monitoring Report, 2019

Note :

- During July 2019, the TSS concentrations meet the Indonesian standard according to MoE Decree No. 51/2004. However, there were 14 days, which the impacted sites were more than 10 mg/L, particularly, at the shallower sites closer to shore (e.g., sites W1, W2, W3, W4, and W11). It recorded the shallower sites closer to shore were occasionally higher than 20 mg/L above reference site in Week 32, Week 33, Week 34, Week (i.e., on 3 July 2019, 10 July 2019, 14 July 2019 and 17 July 2019). The TSS values in site W11 at surface and bottom were higher than 80 mg/L on 10 July 2019.
- During this period (Monthly), dredging was only carried out on 30 and 31 July 2019 (2 days), due to equipment damage. So the high value of TSS on July 10, 2019, was not due to construction activities. The dredging schedule for July is shown in Figure below (Figure 2.4. Dredging Progress Record in July 2019).
- W12 is a reference site, BL = Bottom Layer & SL = Surface Layer





Source : Contractor Environmental Monitoring Report, 2019

Figure 2.4 Dredging Progress Record in July 2019

Table 8 Daily Monitoring for TSS results at Bottom & Surface-layer (1-31 August 2019)

Date		TSS (mg/l)											
		W12	*W1*	*W3*	*W5*	*W2*	*W4*	*W6*	*W7*	*W8*	*W9*	*W10*	*W11*
1-Agt-19	BL	14,92	20,22	12,33	11,05	-	-	-	-	-	-	-	-
	SL	12,45	16,80	12,60	10,30	-	-	-	-	-	-	-	-
2-Agt-19	BL	14,30	29,22	12,33	14,18	-	-	-	-	-	-	-	-
	SL	13,32	24,90	11,80	14,70	-	-	-	-	-	-	-	-
3-Agt-19	BL	-	38,22	22,07	19,23	-	-	-	-	-	-	-	-
	SL	-	40,60	21,30	17,00	-	-	-	-	-	-	-	-
4-Agt-19	BL	14,79	26,26	19,11	19,36	-	-	-	-	-	-	-	-
	SL	14,18	25,90	16,30	18,20	-	-	-	-	-	-	-	-
5-Agt-19	BL	14,42	27,25	20,59	18,00	-	-	-	-	-	-	-	-
	SL	15,29	26,90	19,60	17,40	-	-	-	-	-	-	-	-
6-Agt-19	BL	19,48	39,45	16,64	17,51	-	-	-	-	-	-	-	-
	SL	12,33	36,90	14,50	14,80	-	-	-	-	-	-	-	-
7-Agt-19	BL	5,40	11,05	7,88	7,80	27,37	11,03	5,10	-	-	-	-	45,12
	SL	5,04	8,90	6,10	5,60	26,60	11,20	4,30	-	-	-	-	43,50
8-Agt-19	BL	8,19	8,45	7,30	5,39	-	-	-	4,11	3,69	4,09	6,25	-
	SL	4,88	7,20	4,90	3,50	-	-	-	1,90	2,00	4,60	2,90	-
9-Agt-19	BL	6,74	26,14	9,21	8,73	-	-	-	-	-	-	-	-
	SL	5,44	23,20	7,80	7,90	-	-	-	-	-	-	-	-
10-Agt-19	BL	8,08	27,49	11,91	12,45	-	-	-	-	-	-	-	-
	SL	7,34	27,20	11,40	9,60	-	-	-	-	-	-	-	-
11-Agt-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
12-Agt-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
13-Agt-19	BL	8,79	20,59	11,34	8,78	40,81	22,56	7,30	-	-	-	-	54,00
	SL	8,46	21,00	10,30	8,40	47,50	21,50	7,00	-	-	-	-	48,30
14-Agt-19	BL	7,87	15,78	8,84	9,78	-	-	-	-	-	-	-	-
	SL	8,06	13,80	9,70	9,60	-	-	-	-	-	-	-	-
15-Agt-19	BL	9,22	18,0	10,16	87,69	-	-	-	-	-	-	-	-
	SL	8,06	16,80	8,10	7,70	-	-	-	-	-	-	-	-
16-Agt-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
17-Agt-19	BL	-	15,29	11,21	7,27	-	-	-	-	-	-	-	-
	SL	-	14,50	9,70	8,10	-	-	-	-	-	-	-	-
18-Agt-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
19-Agt-19	BL	12,32	34,89	21,45	12,70	-	-	-	-	-	-	-	-
	SL	11,17	34,20	18,90	12,00	-	-	-	-	-	-	-	-
20-Agt-19	BL	10,90	25,40	14,55	9,00	-	-	-	-	-	-	-	-
	SL	9,06	21,30	11,20	8,80	-	-	-	-	-	-	-	-
21-Agt-19	BL	6,13	19,11	-	-	53,14	25,89	6,47	4,48	3,81	4,02	3,91	60,78
	SL	6,49	14,79	-	-	52,15	21,95	6,68	3,43	3,88	2,95	2,15	59,80

Date		TSS (mg/l)											
		W12	W1	W3	W5	W2	W4	W6	W7	W8	W9	W10	W11
22-Agt-19	BL	10,18	15,66	13,32	9,60	-	-	-	-	-	-	-	-
	SL	9,59	13,56	11,82	9,86	-	-	-	-	-	-	-	-
23-Agt-19	BL	15,29	28,85	17,38	13,93	-	-	-	-	-	-	-	-
	SL	14,55	25,89	23,18	13,69	-	-	-	-	-	-	-	-
24-Agt-19	BL	13,19	27,37	17,63	14,30	-	-	-	-	-	-	-	-
	SL	11,12	19,48	14,30	13,56	-	-	-	-	-	-	-	-
25-Agt-19	BL	14,06	21,08	11,10	11,02	-	-	-	-	-	-	-	-
	SL	8,57	17,51	10,94	10,59	-	-	-	-	-	-	-	-
26-Agt-19	BL	8,64	14,67	11,71	8,17	-	-	-	-	-	-	-	-
	SL	8,20	15,53	10,17	8,62	-	-	-	-	-	-	-	-
27-Agt-19	BL	9,70	18,99	10,94	6,51	-	-	-	-	-	-	-	-
	SL	6,85	17,26	8,17	7,15	-	-	-	-	-	-	-	-
28-Agt-19	BL	7,53	27,49	9,63	8,91	44,51	21,95	9,33	-	-	-	-	58,07
	SL	8,62	25,15	9,72	6,44	42,41	25,40	5,62	-	-	-	-	60,04
29-Agt-19	BL	12,45	28,23	15,04	10,48	-	-	-	3,71	4,48	4,20	6,79	-
	SL	12,58	22,32	12,07	10,65	-	-	-	2,75	3,38	4,69	5,13	-
30-Agt-19	BL	11,70	27,74	15,53	17,51	-	-	-	-	-	-	-	-
	SL	14,06	24,04	15,78	13,56	-	-	-	-	-	-	-	-
31-Agt-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-

Source : Contractor Environmental Monitoring Report, 2019

Note :

- In this period, there were more than 15 days, which the impacted sites were more than 10 mg/L, particularly, at the shallower sites closer to shore (e.g., sites W1, W2, W3, W4, and W11). It recorded the shallower sites closer to shore were occasionally higher than 20 mg/L above reference site, *i.e.*, on 23 July 2019, 27 July 2019, 28 July 2019, 29 July 2019, 30 July 2019, 31 July 2019, 6 August 2019, 7 August 2019, 13 August 2019 and 19 August 2019. During the 9th month of the construction phase, the TSS concentrations meet the Indonesian standard according to MoE Decree No. 51/2004.
- W12 is a reference site, BL = Bottom Layer & SL = Surface Layer

>10 and <= 20 mg/L above reference site

> 20 above reference site and < 80 mg/L

>= 80 mg/L

Table 9 Daily Monitoring for TSS results at Bottom & Surface-layer (1-20 September 2019)

Date		TSS (mg/l)											
		W12	*W1*	*W3*	*W5*	*W2*	*W4*	*W6*	*W7*	*W8*	*W9*	*W10*	*W11*
1-Sept-19	BL	15,29	26,75	20,71	16,27	-	-	-	-	-	-	-	-
	SL	13,44	19,48	19,11	13,93	-	-	-	-	-	-	-	-
2-Sept-19	BL	13,19	29,59	14,30	13,32	-	-	-	-	-	-	-	-
	SL	11,71	19,73	14,06	11,58								
3-Sept-19	BL	10,52	20,34	15,29	12,58	-	-	-	-	-	-	-	-
	SL	12,58	21,21	12,02	11,81	-	-	-	-	-	-	-	-
4-Sept-19	BL	18,74	40,07	13,81	15,04	-	-	12,33	-	-	-	-	68,80
	SL	10,22	37,11	13,07	12,95	-	-	9,84	-	-	-	-	65,34
5-Sept-19	BL	9,75	-	13,44	11,71	-	-	-	-	-	-	-	-
	SL	9,55	-	11,27	9,69	-	-	-	-	-	-	-	-
6-Sept-19	BL	-	21,95	12,01	9,88	-	-	-	-	-	-	-	-
	SL	-	17,38	11,12	8,47	-	-	-	-	-	-	-	-
7-Sept-19	BL	5,29	-	9,07	7,55	-	-	-	-	-	-	-	-
	SL	3,96	-	7,68	5,31	-	-	-	-	-	-	-	-
8-Sept-19	BL	3,74	12,58	7,04	5,91	-	-	-	-	-	-	-	-
	SL	3,79	12,82	7,24	6,20	-	-	-	-	-	-	-	-
9-Sept-19	BL	5,52	9,22	6,02	4,08	-	-	-	-	-	-	-	-
	SL	6,83	7,56	6,79	4,13	-	-	-	-	-	-	-	-
10-Sept-19	BL	4,78	16,40	8,90	6,69	-	-	-	-	-	-	-	-
	SL	6,62	12,05	7,96	5,20	-	-	-	-	-	-	-	-
11-Sept-19	BL	8,06	14,06	11,47	10,33	19,85	28,11	8,78	-	-	-	-	29,34
	SL	6,58	13,81	10,32	9,30	18,86	28,60	7,67	-	-	-	-	30,82
12-Sept-19	BL	4,99	28,11	12,82	11,90	-	-	-	2,95	3,82	2,71	2,95	-
	SL	4,75	27,37	11,95	11,50	-	-	-	1,59	2,31	4,35	2,24	-
13-Sept-19	BL	5,34	19,60	10,43	5,87	-	-	-	-	-	-	-	-
	SL	3,87	18,37	9,00	4,99	-	-	-	-	-	-	-	-
14-Sept-19	BL	5,56	11,21	9,21	6,13	-	-	-	-	-	-	-	-
	SL	4,44	10,92	8,09	5,49	-	-	-	-	-	-	-	-
15-Sept-19	BL	5,31	15,29	9,42	6,30	-	-	-	-	-	-	-	-
	SL	4,36	15,04	9,91	5,20	-	-	-	-	-	-	-	-
16-Sept-19	BL	4,48	12,58	10,27	6,73	-	-	-	-	-	-	-	-
	SL	4,98	11,56	9,19	6,84	-	-	-	-	-	-	-	-
17-Sept-19	BL	-	32,18	10,92	11,24	46,48	44,14	-	2,92	2,64	3,66	4,09	54,00
	SL	-	25,03	11,64	7,58	45,37	43,15	-	2,33	2,60	3,44	2,71	52,89
18-Sept-19	BL	-	-	-	-	-	-	-	-	-	-	-	-
	SL	-	-	-	-	-	-	-	-	-	-	-	-
19-Sept-19	BL	8,19	25,03	14,92	12,58	-	-	7,61	-	-	-	-	-
	SL	7,10	22,32	14,92	9,47	-	-	7,40	-	-	-	-	-
20-Sept-19	BL	9,04	34,52	15,41	12,12	-	-	-	-	-	-	-	-
	SL	8,68	27,74	12,07	10,20	-	-	-	-	-	-	-	-

Source : Contractor Environmental Monitoring Report, 2019

Table 10. Air Quality Laboratory Results

REPORT OF ANALYSIS
No.: 313/B/LHU/MB/IV/2019

Customer Name : SHIMIZU-PP-BCK JOINT VENTURE
Address : Access Road Work Under Patimban Port Development Project (I)
Type of sample (s) : Ambient
No. Sample : 586/MB-KU/I/2019
Date of Sampling : 1 – 2 April 2019
Date of Analysis : 4 – 18 April 2019
Coordinate Point : S: 06°16'52.49" E: 107°51'50.33"

No	PARAMETERS	MEASUREMENT TIME	REGULATION	TEST RESULT	METHOD SPESIFICATION
				STA 0+000	
1.	Sulfur Dioxide (SO_2)	24 Hour	365 µg/Nm³ [1])	<0.7581 µg/Nm³	SNI 7119.7:2017
2.	Carbon Monoxide (CO)	24 Hour	10000 µg/Nm³ [1])	3448.0 µg/Nm³	IKM/7.2.6/MB (Electro Chemical Sensor)
3.	Nitrogen Dioxide (NO_2)	24 Hour	150 µg/Nm³ [1])	12.0 µg/Nm³	SNI 7119.2:2017
4.	PM 10 (Particle < 10 µm)	24 Hour	150 µg/Nm³ [1])	23.8 µg/Nm³	SNI 7119.15:2016
5.	Dust (TSP)	24 Hour	230 µg/Nm³ [1])	29.5 µg/Nm³	SNI 7119.3:2017
	Temperature	-	-	31°C	Direct Reading
	Relative Humidity			45%	
	Wind Velocity			0.09 – 1.19 m/det	
	Wind Direction Dominant			West	

[1]) Indonesian Government Regulation No. 41 Year 1999 on Air Pollution Control
"<" Shows The Smallest Value Of The Measurement Obtained by The Method Used

Jakarta, 18 April 2019
PT. Mitralab Buana

REPORT OF ANALYSIS
No.: 313/B/LHU/MB/IV/2019

Customer Name : SHIMIZU-PP-BCK JOINT VENTURE
Address : Access Road Work Under Patimban Port Development Project (I)
Type of sample (s) : Ambient
No. Sample : 586/MB-KU/I/2019
Date of Sampling : 1 – 2 April 2019
Date of Analysis : 4 – 18 April 2019
Coordinate Point : S: 06°15'44.08" E: 107°52'38.08"

No	PARAMETERS	MEASUREMENT TIME	REGULATION	TEST RESULT	METHOD SPESIFICATION
				STA 2+700	
1.	Sulfur Dioxide (SO_2)	24 Hour	365 µg/Nm³ [1])	11.6 µg/Nm³	SNI 7119.7:2017
2.	Carbon Monoxide (CO)	24 Hour	10000 µg/Nm³ [1])	1169.7 µg/Nm³	IKM/7.2.6/MB (Electro Chemical Sensor)
3.	Nitrogen Dioxide (NO_2)	24 Hour	150 µg/Nm³ [1])	8.30 µg/Nm³	SNI 7119.2:2017
4.	PM 10 (Particle < 10 µm)	24 Hour	150 µg/Nm³ [1])	23.9 µg/Nm³	SNI 7119.15:2016
5.	Dust (TSP)	24 Hour	230 µg/Nm³ [1])	20.9 µg/Nm³	SNI 7119.3:2017
	Temperature	-	-	33°C	Direct Reading
	Relative Humidity			61%	
	Wind Velocity			0.16 – 1.56 m/det	
	Wind Direction Dominant			East	

[1]) Indonesian Government Regulation No. 41 Year 1999 on Air Pollution Control
"<" Shows The Smallest Value Of The Measurement Obtained by The Method Used

Jakarta, 18 April 2019
PT. Mitralab Buana
Yulia Ermawati, S.Si
Laboratory Manager

Source : Contractor Environmental Monitoring Report, 2019

Note :

The next measurement schedule conducted on October 2019

REPORT OF ANALYSIS

No.: 313/B/LHU/MB/IV/2019

Customer Name : SHIMIZU-PP-BCK JOINT VENTURE
Address : Access Road Work Under Patimban Port Development Project (I)
Type of sample (s) : Ambient
No. Sample : 586/MB-KU/I/2019
Date of Sampling : 1 – 2 April 2019
Date of Analysis : 4 – 18 April 2019
Coordinate Point : S: 06°14'25.08" E: 107°53'43.07"

No	PARAMETERS	MEASUREMENT TIME	REGULATION	TEST RESULT	METHOD SPESIFICATION
				STA 7+000	
1.	Sulfur Dioxide (SO_2)	24 Hour	365 µg/Nm³ [1])	<0.7581 µg/Nm³	SNI 7119.7:2017
2.	Carbon Monoxide (CO)	24 Hour	10000 µg/Nm³ [1])	937.3 µg/Nm³	IKM/7.2.6/MB (Electro Chemical Sensor)
3.	Nitrogen Dioxide (NO_2)	24 Hour	150 µg/Nm³ [1])	<0.3603 µg/Nm³	SNI 7119.2:2017
4.	PM 10 (Particle < 10 µm)	24 Hour	150 µg/Nm³ [1])	21.0 µg/Nm³	SNI 7119.15:2016
5.	Dust (TSP)	24 Hour	230 µg/Nm³ [1])	17.7 µg/Nm³	SNI 7119.3:2017
	Temperature	-	-	31°C	Direct Reading
	Relative Humidity			44%	
	Wind Velocity			0.04 – 1.19 m/det	
	Wind Direction Dominant			West	

[1]) Indonesian Government Regulation No. 41 Year 1999 on Air Pollution Control
"<" Shows The Smallest Value Of The Measurement Obtained by The Method Used

Jakarta, 18 April 2019
PT. Mitra Kemilau Abadi

Yulia Ermawati, S.Si
Laboratory Manager

Source : Contractor Environmental Monitoring Report, 2019

Note :
The next measurement schedule conducted on October 2019

Table 11. Noise Measurement Result

REPORT OF ANALYSIS
No.: 313/B/LHU/MB/IV/2019

Customer Name	: SHIMIZU-PP-BCK JOINT VENTURE
Address	: Access Road Work Under Patimban Port Development Project (i)
Type of sample (s)	: Ambient Noise Level
No. Sample	: 586/MB-KU/I/2019
Date of Sampling	: 1 – 2 April 2019
Date of Analysis	: 4 – 18 April 2019
Methode Spesification	: SNI 8427:2017

No	LOCATION	MEASUREMENT TIME	TEST RESULT	RAW OF NOISE *)		
1.	STA 0+000	24 Hour	85.4 dBA	A. Area Designation		
				1. Housing and Settlements	:	55 dBA
				2.Trade and Service	:	70 dBA
				3.Office and Trade	:	65 dBA
				4.Green Open Room	:	50 dBA
2.	STA 2+700	24 Hour	53.8 dBA	5.Industry	:	70 dBA
				6.Government and Public Facilities	:	60 dBA
				7.Recreation	:	70 dBA
				8.Special : a. Seaports	:	70 dBA
				b. Cultural Heritage	:	60 dBA
3.	STA 7+000	24 Hour	61.8 dBA	B. Activity Environment		
				1.Hospital or the like	:	55 dBA
				2.School or the like	:	55 dBA
				3.Place of worship or the like	:	55 dBA

*) Decree of the State Minister of Environment Number Kep-48 / MENLH / 11/1996

Jakarta, 18 April 2019
PT. Mitra Bumi Sarana

Yulia Ermawati, S.Si
Laboratory Manager

Source : Contractor Environmental Monitoring Report, 2019

Note: The data Noise result is shown in table 9
Refer to the EIA Document regarding Noise standard value; it is used 70 dB(A) as a max noise limit for the project activities.

Only STA 0 is above the standard, this station is located along the Pantura, so this may not derive from the construction activities.
The next measurement conducted in October 2019.

3. Details on Social Environment

Table 12. Number of Local worker Terminal Construction

No	Location (Village)	Monitoring Period				Total*
		2019				
		Jun	Jul	Aug	Sep	
1	Patimban	115	115	115	115	**842**
2	Gempol	8	8	8	9	**92**
3	Kalentambo	21	21	21	21	**115**
4	Kotasari	2	2	2	2	**37**
5	Pusakaratu	8	8	8	8	**46**
6	Pusakaraya	2	2	2	2	**13**
TOTAL		**81**	**156**	**156**	**157**	**1.145**

*since construction started

Source : Contractor Environmental Monitoring Report, 2019

Table 13. Number of Local worker Breakwater, Seawall, and Channel Dredging Works

No	Location (Village)	Monitoring Period				Total*
		2019				
		Jun	Jul	Aug	Sep	
1	Patimban	-	-	-	-	**0**
2	Gempol	6	6	7	2	**21**
3	Kalentambo	-	2	7	5	**14**
4	Kotasari	-	1	1	1	**3**
5	Pusakaratu	5	13	24	16	**62**
6	Pusakajaya	-	1	1	-	**2**
TOTAL + other area		**27**	**41**	**60**	**43**	**207**

*since construction started

Source : Contractor Environmental Monitoring Report, 2019

Table 14. Number of local Workers for Access Road

No	Location (Village)	Monitoring Period			Total*
		2019			
		Jun	Jul	Aug	
1	Patimban	19	25	27	**100**
2	Gempol	63	62	64	**292**
3	Kalentambo	28	33	33	**142**
4	Kotasari	60	69	71	**312**
5	Pusakaratu	54	47	53	**277**
6	Pusakajaya	13	6	8	**54**
TOTAL		**237**	**242**	**256**	**1.177**

*since construction started

Source : Contractor Environmental Monitoring Report, 2019

Table 15. Land Traffic Condition and Accident Number

No	Location	Monitoring Period								Total	
		Jun 2019		Jul 2019		Aug 2019		Sep 2019			
		TJ	AN	TJ	AN	TJ	AN	TJ	AN	TJ	AN
1	Pantura road	0	*	0	*	0	*	0	*	0	*
2	Patimban seaport access road	0	*	0	*	0	*	0	*	0	*
3	Crossing of Pantura road	0	*	0	*	0	*	0	*	0	*
4	Crossing of Patimban seaport access road	0	*	0	*	0	*	0	*	0	*

Note:
TJ : Traffic Jam AN : Accident Number (*): No Record
Source : Contractor Environmental Monitoring Report, 2019

Table 16. Sea Traffic Condition

No	Location	Monitoring period				Total*
		Jun-19	Jul-19	Aug-19	Sep-19	
1	Pilling barge	2	2	2	2	**20**
2	Anchor boat	4	4	3	3	**31**
3	CDM Vessel	4	1	4	4	**36**
4	Semi-submersible vessel	-	-	-	-	**4**
5	Pneumatic conveying barge	1	1	1	-	**9**
6	Cement supply vessel	1	1	1	1	**10**
7	Improved soil placing barge	1	1	-	-	**9**
8	Cement transportation vessel	2	2	2	2	**22**
9	Cement feeder carrier	4	4	5	5	**36**
10	Grab dredger	2	3	1	2	**33**
11	Hopper barge	2	2	2	2	**35**
12	SP Hopper Barge	-	-	1	1	**13**
13	Flat barge	6	6	6	7	**40**
14	Crane barge	2	2	2	2	**31**
15	Tug boat	13	15	10	10	**117**
16	Crew boat	7	9	9	10	**69**
17	Work boat	3	3	3	3	**24**
18	Excavator Barge	1	1	1	1	**7**
19	Fracturing Barge	1	1	1	1	**7**
20	Stone Barge	1	1	1	-	**3**
21	CPM	-	-	-	1	**1**
22	Multi Purpose Vessel	-	-	-	1	**1**
23	Placing Barge	-	-	-	1	**1**
24	Rescue boat	-	-	-	3	**3**
25	SPOB	-	-	-	2	**2**
26	Bunker Vessel	-	-	-	2	**2**
Total		**57**	**59**	**55**	**66**	**566**

*since construction started
Source : Contractor Environmental Monitoring Report, 2019

Table 17. Sea Traffic Condition and Accident Number

No	Location	Monitoring period								Total	
		Jun 2019		Jul 2019		Aug 2019		Sep 2019			
		STC	AN	STC	AN	STC	AN	STC	AN	STC	AN
1	Patimban Beach	Smooth	0	Smooth	0	Smooth	0	Smooth	0	Smooth	0

Note:
STC : Sea traffic condition AN : Accident Number
Source : Contractor Environmental Monitoring Report, 2019

Table 18. Public Unrest

No	Location	Monitoring Period												Total		
		Jun 2019			Jul 2019			Aug 2019			Sep 2019					
		PUN	PRO	DEM	PUN	PRO	DEM	PUN	PRO	DEM	PUN	PRO	DEM	PUN	PRO	DEM
1	Around Patimban port development project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note:
PUN : Pucblic Unrest PRO : Protest DEM : Demonstration
Source : Contractor Environmental Monitoring Report, 2019

Table 19. Record of Livelihood Restoration Program (LRP)

Implementation date	Program name	Number of participants
29 July – 8 August	Forklift Training Batch 4	25
15 – 26 August	Forklift Training Batch 5	25
2 – 12 September	Forklift Training Batch 6	25
17 – 27 September	Forklift Training Batch 7	25
1 – 3 August	Rampus Net Assembling Batch 4	44
24 – 26 August	BST Batch 2 Training	249
2 – 24 September	Welding Training Batch 1	38
16 – 20 September	Security Training Batch 1 & 2	46
15 – 19 September	Cleaning Service Training Batch 1	31
Total Participants		508

Source : Livelihood Restoration Program Report, 2019

Table 20. Record of Funds Land Acquisition

Allocated funds			Record of disbursement		
Amount (IDR.)	Allocated organization	Purpose of use	Date	Amount (IDR.)	Disbursement to
46.009.029.728	Access road land acquisition	Payment for 121 land plot owner	Last updated 17 September 2019	46.009.029.728	116 land plot owner or equal to 112.311 M^3.
-	Access road land acquisition	Payment for 24 land plot institution own	Last updated 17 September 2019	-	1 plot own by Ministry of Agricultural already paid, the rest is on progress
343.497.861.709	LMAN	Payment to 230 land plot owner	Last updated 17 September 2019	343.497.861.709	Already paid to 230 land plot owner equal to 184.8 Ha
208.752.073.437	LMAN	Arrange to data correction to 117 land plot owner	Last updated 17 September 2019	208.752.073.437	Arrange to data correction for 830.312 M^2.
16.530.031.588	LMAN	Arrange to submission to LMAN for 13 plot owner	Last updated 17 September 2019	16.530.031.588	Arrange to submission to LMAN for 13 plot owners equal to 67.447 M^2.
84.673.419.388	LMAN	Need to consignment for 58 land plot owners equal to 374.248 M^2.	Last updated 17 September 2019	84.673.419.388	Need to consignment for 58 land plot owners equal to 374.248 M^2.

Source : Directorate General of Sea Transportation, 2019

Table 21. Progress of Compensation Payment and Land Vacation

Village Items	Patimban	Gempol	Kalentambo	Kotasari	Pusakajaya	Pusakaratu	Total Plot	Total area (Ha)
Land of Access road with completion of payment	116							11.23
Land of Back up area with completion of payment	230							183.13

Source : Directorate General of Sea Transportation, 2019

Table 22. Livelihood Restoration Program (LRP)

Allocated funds			Record of disbursement		
Amount (IDR.)	Allocated organization	Purpose of use	Date	Amount (IDR.)	Disbursement for
14.312.732.200	DGST to Consultant PKG-8	LRP implementation	June 2019	63.018.600	Non-personnel
				158.770.000	Forklift training #3 for 25 participants
				360.623.100	Rampus training #2 &3 for 88 participants
				60.300.000	Experts
			July 2019	60.300.000	Experts
				44.663.200	Non-personnel
			Aug 2019	281.390.000	BST 2 training for 249 participants
				60,300,000	Experts
				59.367.700	Non-personnel
				316.940.000	Forklift training #4 & 5 for 50 participants
				180.311.550	Rampus training #4 for 44 participants
			Total	1.645.984.150	-

Source : Livelihood Restoration Program Report, 2019

Table 23. Grievance Redress

Date of grievance received	Dated of grievance resolved	Solution/unresolved issues	Note (if any)
03-10-2018	01-07-2019	Handling complaints and problems due to access road development is still in progress. Until September 2019, the contractor is ready to repair the houses impacted by access road development. There are 85 families identified that their house impacted. Meanwhile, in the period of identification, the contractor gives compensation for the household by its range, 0 – 50 meters, and 50 – 100 meters from the construction point. The location identified in Pusakaratu Village and Gempol Village. Renovations of residents' houses that get crack have been carried out in stages. On July 18, houses already repair in Pusakaru Village. For September, some affected houses are still in the process of being	-

Date of grievance received	Dated of grievance resolved	Solution/unresolved issues	Note (if any)
		repaired. Until now, 47 houses have registered in Pusakaratu village. For Gempol Village, data collection has also carried out related to the damage to people's homes due to pile work. The number of residents' houses that are currently being recorded is around 38 houses. The data collection of affected residents' houses continues to carried out until all of them are complete.	

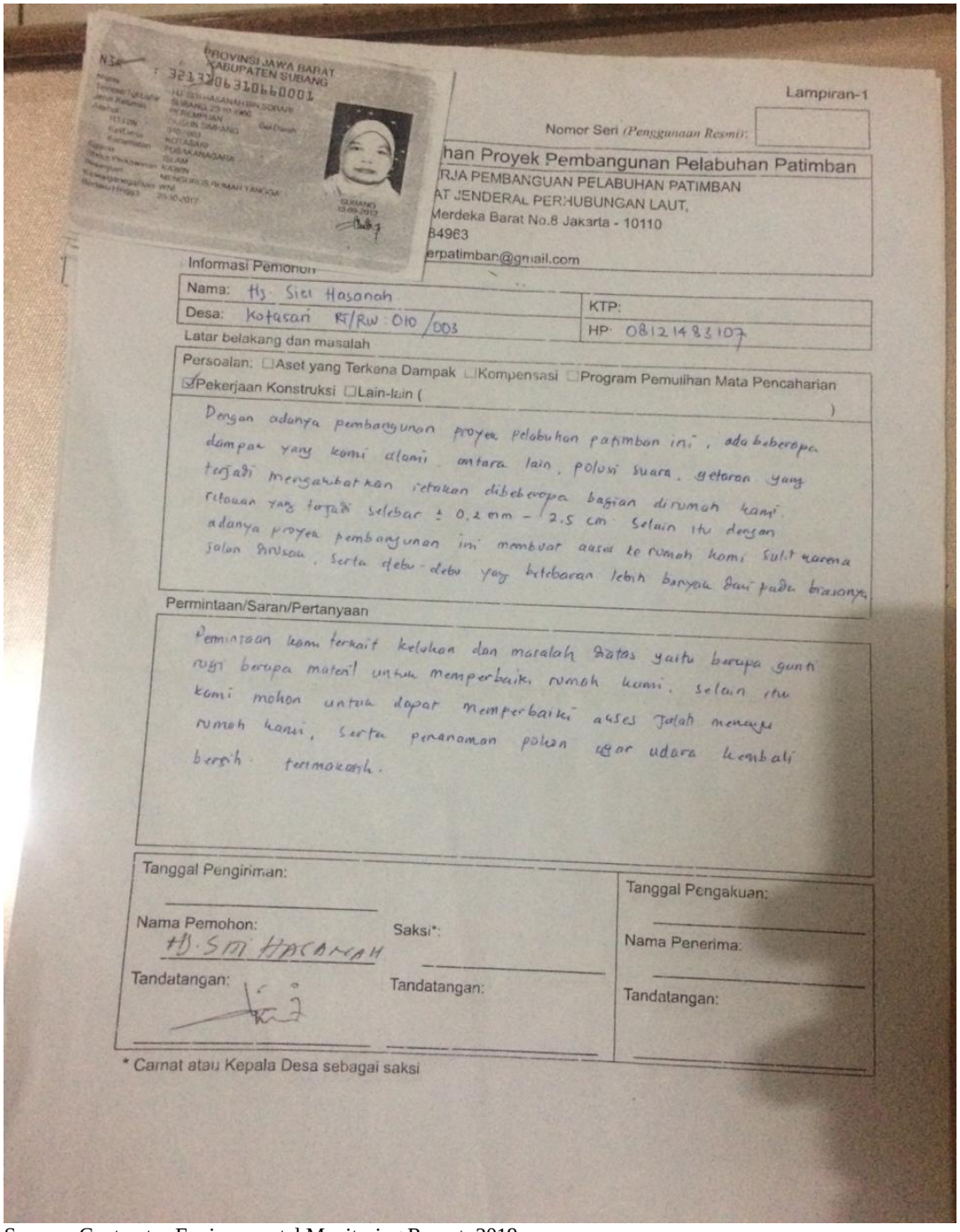
Source : Contractor Environmental Monitoring Report, 2019

Table 24. Implementation Problems and Solutions (if any)

Record of problems		Record of solutions	
Date	Problems	Date	Solutions

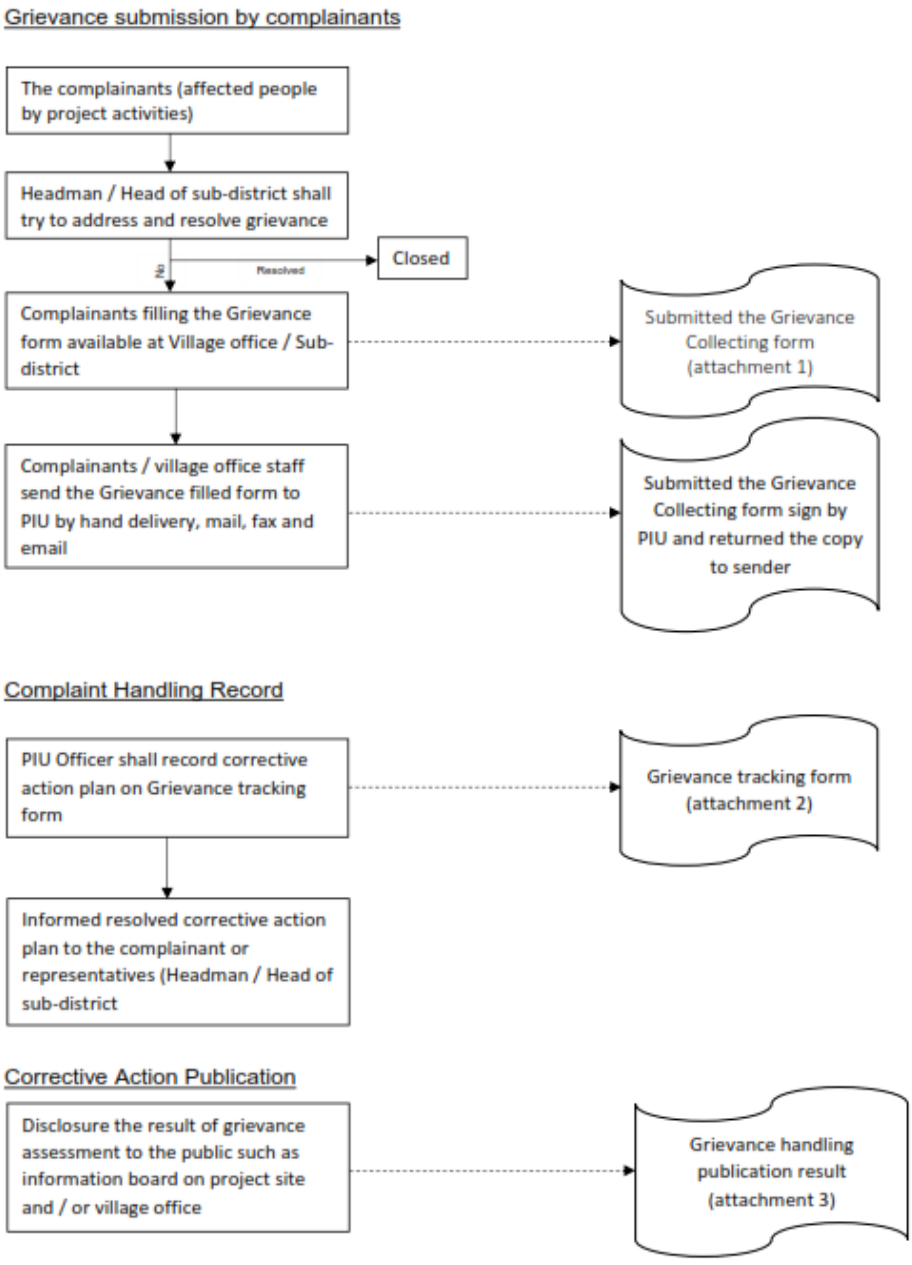
Source : Contractor Environmental Monitoring Report, 2019

Figure 2.5 Form of complaint from the public regarding road access



Source : Contractor Environmental Monitoring Report, 2019

Figure 2.6 Grievance Redress Procedure for Patimban Port Development Project



Source : Directorate General of Sea Transportation, 2019

Figure 2.7. Complainants Form

Lampiran-1

Nomor Seri *(Penggunaan Resmi)*:

Formulir Pengumpulan Keluhan Proyek Pembangunan Pelabuhan Patimban

SATUAN KERJA PEMBANGUAN PELABUHAN PATIMBAN
DIREKTORAT JENDERAL PERHUBUNGAN LAUT,
JL. Medan Merdeka Barat No.8 Jakarta - 10110
FAX: 021 384963
Email : pelayananpatimban@yahoo.com

Informasi Pemohon

Nama:	KTP:
Desa:	HP:

Latar belakang dan masalah

Persoalan: ☐Aset yang Terkena Dampak ☐Kompensasi ☐Program Pemulihan Mata Pencaharian ☐Pekerjaan Konstruksi ☐Lain-lain ( )

Permintaan/Saran/Pertanyaan

Tanggal Pengiriman:		Tanggal Pengakuan:
Nama Pemohon:	Saksi*:	Nama Penerima:
Tandatangan:	Tandatangan:	Tandatangan:

* Camat atau Kepala Desa sebagai saksi

Lampiran-2

	Formulir Pelacakan Pengaduan Proyek Pembangunan Pelabuhan Patimban	Nomor Seri:

Informasi Keluhan

Nama Pengadu:	Desa:
Ringkasan Pengaduan:	

Catatan Penanganan Pengaduan

Hari	Tindakan yang diambil untuk menyelesaikan keluhan (investigasi dll)	Hasil /tindakan lebih lanjut yang harus dilakukan	Orang yang bertanggung-jawab
	Menerima Keluhan melalui _____		

Solusi akhir

Tanggal	Solusi	Laporan Keluhan	Publikasi dan Solusi	Orang yang bertanggung-jawab
		Tanggal Laporan:_____ Metode: ☐ Bicara langsung ☐Melalui kepala desa / camat ☐Lain-lain ( )	Tanggal Publikasi:_____ Metode: ☐Papan Desa ☐Others ( )	

Lampiran-3

Nomor Seri:

Hasil Publikasi Penanganan Keluhan untuk Proyek Pembangunan Pelabuhan	
	SATUAN KERJA PEMBANGUAN PELABUHAN PATIMBAN DIREKTORAT JENDERAL PERHUBUNGAN LAUT, JL. Medan Merdeka Barat No.8 Jakarta - 10110 FAX: 021 384963 Email: pelayananpatimban@yahoo.com

Informasi Pemohoon

Nama:	Desa:
Tanggal Pengajuan:	

Ringkasan Keluhan

Respon/Solusi/Hasil Investigasi

Tanggal Publikasi:

Nama Orang yang Bertanggung-Jawab:

Tandatangan:

Source : Directorate General of Sea Transportation, 2019