Responses to External Audit Recommendations
Second Quarter 2017 Update

Strategic Environmental Issues	Recommendations (Summary)	PTFI Response	PTFI Responsible Group	Status/Timing
Tailings Management	TM1 PTFI should study the best locations for monitoring points in the downstream area of ModADA to replace Kelapa Lima and Pandan Lima. These new points will serve to monitor the retention performance in terrestrial part of Modified Ajkwa Deposition Area (ModADA) or if monitoring directly is not feasible, develop technically defensible method for estimating retention.	Discussions with Ministry of Environment and Forestry (MoEF) have been finalized to put back the compliance point which stated at KEPMENLH-431-2008. TRMP has complete the construction at Kelapa Lima. The construction at Pandan Lima is still on progress and will be complete by the end of January 2017.	TRMP/ Environmental	Complete
	TM2 Apply different methods to calculate the tailings retention in ModADA.	Appropriate methods to estimate retention are being discussed with the MoEF. We have evaluated two methods - transect survey data, LIDAR in conjunction with density estimates. We will continue to operate within the confines of our permits until we hear otherwise from MoEF.	TRMP/ Environmental	Complete

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	TM3 TRMP staff must remain highly diligent in regularly measuring, monitoring and maintaining adequate freeboard at all times on both the West and East Levees.	Daily inspections of both levees are performed. Monthly freeboard measurements are published internally.	TRMP	Complete
	TM4 Continue regular emergency response drills using and modifying (as necessary) the Tailing Incident Action Plan (TIAP) to develop the response routine necessary to quickly and effectively address potential levee breached in the future.	Name of TIAP has been changed to TRMP Emergency Procedure Manual (TEPM). The TEPM covers emergency events such as floods or levee breaches. Geochemistry items are covered in the SOP TM 09-02. Two table top drills and socialization with Emergency Group and other stakeholders have been completed in 2015.	TRMP	Complete
	TM5 Modified upstream construction of the levee embankment in Zones 1/2 should continue to be employed to improve foundation conditions and reduce fill material.	Recommended construction method is being continued.	TRMP	Complete

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	TM6 Cone penetrometer testing (CPT) should be completed in Zone 1-2 of the West Levee to provide more definitive data on the depth of the organic layer underlying the levee embankment footprint.	The specified testing in zones 1 and 2 has been completed.	TRMP	Complete
Overburden Management	OM1 Do a visual inspection of the Wanagon Drainage Drift (WDD) pipeline system and concomitant order of magnitude water balance for the Wanagon Overburden Stockpile (OBS) watershed.	Pipeline is free from any obstruction. Changes in flow rates are closely correlated to rainfall, and not plugging of the system. Present water chemistry does not indicate plugging conditions.	Geotechnical Services	Complete
	OM2 The Grasberg mine staff must confirm the recurrence interval and bedrock acceleration in relationship to the current and final slope angles for the East OBS.	The bed rock acceleration evaluation was completed by Golder in January 2013, and was subsequently reviewed by LAPI ITB in January 2013. The exercise used a return period of 475 years (SB, 475 years RP, 10% PE in 50	Geotechnical Services	Complete

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		years), with a 0.33g value determined for HighLand. The 0.66g value conveyed to the auditor duing the exercise was miscommunicated.		
	OM3 The pit slope geotechnical staff must get a detailed and comprehensive debriefing on the stages of failure leading up to, during and after the recent Bingham Canyon pit failure (Rio Tinto Mine in Salt Lake City) and establish lessons learned.	The Bingham Canyon pit failure lesson learn has been incorporated in our Working Criteria and Closure Limit.	Geotechnical Services	Complete
Waste Management	WM1 The co-deposition of waste with Heavy Sulfide Zone (HSZ) material in Koteka OBS should be evaluated to avoid dumping of hazardous waste such as electronic waste.	Additional precautions are being taken to avoid disposing of electronic wastes in Koteka landfill. SOP covering electronic waste management is final. MIS will collect all electronic waste and package to send to PPLI. Jakarta office e waste is already being collected and sent to PPLI. PPLI contract is in place. Master Site Waste Management Plan is being updated as part of	Facilities Management	Complete

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		Environmental Management Project (EMP) #8-2015 (Improvement in Waste Management) and will include this item.		
	WM2 Measuring weight of Hazardous (B3) waste in cubic container regularly for obtaining more accurate measurement.	A weight scale for the Mine Maintenance and KPI Highland have arrived and installed. Actual weights have been recorded as part of the on-line COC. Another weight scale has been purchased and installed at THWS MP-32.	Environmental	Highland - Complete Lowland – Complete
	WM3 Include information about treated waste in the database system. In relation to this, PTFI can also extract data from current database for the purpose of further analysis in respect to cleaner production improvement and maintaining best practices for obtaining information on major hazardous waste and generator activities.	Information about treated wastes is available from periodic reviews of contract disposal facilities. Data from waste disposal company will be included in on-line hazardous waste tracking system(COC). Additional training has been conducted for personnel who enter data into COC system. This information will be included in the database system. The training has been conducted for	Facilities Management/ Environmental	Complete

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		Facilities Management Lowland crew.		
	WM4 Complete information in the container labels in Lowland FM.	Lowland Facilities Management is now providing complete information on the container labels Complete	Facilities Management	Complete
	WM5 PCB Transformer and Transformer Oil Management		Environmental	
	PTFI shall make records of used transformers that were already replaced, store using special procedures and determine appropriate disposal.	A comprehensive survey of transformers and transformer oils has been completed including all PTFI and Puncak Jaya Power (PJP) equipment. The SOP draft has been completed pending availability of a treatment facility in Indonesia.		Complete
	The procedure for control of generation, identification, storage and disposal of PCB shall clearly state it is forbidden to reuse PCB containing oils as substituting fuel as applied for non-PCB used oils in Mahaka lime kiln and Dewatering Plant.			
	Disseminate knowledge on impacts, control and roles of personnel who might generate, handle, store and dispose PCB wastes (compliance commitment).			
	Determine the selected location of previously-disposed used transformers			

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	especially those indicated to contain PCBs and establish a monitoring and measurement process to ensure impact minimization in the future (compliance commitment).			
	PTFI should prevent burning (as applied to other kinds of used oils) or disposing into landfill of any transformers' used oils.			
	WM6 PTFI should make a record of the number of B3 wastes cubes being stored at Concentrating Laboratory and if possible to note the added wastes since the longer B3 wastes are kept, the higher the risk of accidental releases causing pollution.	Laboratory records of B3 wastes cubes has been modified as indicated. The fire assay wastes cubes stored at QA/QC Laboratory were sent to PPLI.	Concentrating	Complete
	WM7 Tembagapura Hospital should make an internal written standard of a maximum 2-weeks holding time for its medical	Internal hospital standards have been modified to include an internal two week holding time target.	AEA	Complete

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	wastes; deviations to this standard can be evaluated and became feedback to other functions.			
	WM8 Raise non-conformance report and carry out corrective action for the spilled fuel incidents at Kawiki vehicle washing.	Corrective actions for the spilled fuel incidents are complete.	KPI	Complete
	WM9 Location of used oils container at Kawiki Light Vehicle Shop should be placed within area covered by oil spills collection channel.	Used oils container has been located as specified.	KPI	Complete
	WM10 Light Industrial Park (LIP) electric shop should increase concentration of oil within oil-contaminated water mixture to be delivered to Dewatering Plant (DWP) by improving performance of water-oil separating unit since it is currently the separating unit which provides solution which contains more water than oil.	LIP electric shop has added a vertical gravity separator to improve water -oil separation.	Supply Chain Management	Complete

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	WM11 Manage the paint remains and cans used in LIP electrical shop as hazardous and toxic (B3) waste instead of as domestic waste.	The SOP related to paint management will be updated. All B3 Waste SOP's are being reviewed for consistency with new B3 regulation.	Environmental/ Supply Chain Management	Complete
	WM12 Electrical shop shall give appropriate identification of hazardous wastes (used absorbent, toner wastes) because two drums were without proper label and symbol.	Appropriate labels are now being used.	Supply Chain Management	Complete
	WM13 Considering that acetylene sludge is defined as hazardous waste, the generation and disposal to be mixed with tailing streams shall be supported with a record and associated permit.	Utilization permit is being discussed with MoEF and has been included in the DELH (Environmental Evaluation Document). Trials for utilization as concrete has been finalized and will be included in the utilization permit proposal.	Environmental	TBD
	WM14	Applicable regulations have been reviewed and procedures modified and socialized to ensure	Supply Chain Management	Complete

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	Cylinder color of acetylene and oxygen shall refer to applicable regulations.	compliance. Cylinder colors have been revised according to the current regulation.		
	WM15 Improve the oil contaminated rags and other containers sign in Highland KPI shops.	Signs for B3 containers in Highland KPI shops have been improved.	KPI	Complete
	WM16 Systematic approaches of domestic waste segregation could be enhanced particularly in Highland area.	A temporary domestic waste segregation facility has been put in to operation which adequately addresses separation of domestic waste. Longer term, a waste transfer station at MP73 landfill will be installed and additional segregation of recyclable materials will be made at that location.	Facilities Management	Complete
	WM17 PTFI should increase the Reduce, Reuse, Recycle (3R) activities improvement (composting, plastic recycling, metal	Additional facilities are planned and efforts to add additional contractors to carry out these programs are in progress. Programs currently in progress include plastic shredding for	Environmental	Complete

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	recycling, and biodiesel from used cooking oil).	recycle in lowland and highland as well as additional biodiesel processing facility in the highlands. PTFI will continue to investigate additional recycling opportunities. These programs are limited by lack of local market for recycled materials.		
	WM18 Master plan of landfill in PTFI should cover post operation plan and include the gas and leachate production projection of contained waste.	These items have been included in Master plan of landfill. Cell three has been constructed with a methane recovery system.	Facilities Management	Complete
	WM19 MP 73 Landfill need drainage improvement including horizontal drains to capture the leachate into the drainage channels.	MP73 landfill drainage is being improved. To reduce leachate, a compacted layer of fill over existing material will be installed. Sampling for leachate water was done to see the performance of compacted layer.	Facilities Management	Complete
	WM20	New procedures have been applied at Koteka Landfill to dedicate areas for waste	Facilities Management	Complete

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Waste Management	In Koteka landfill separate cells should be properly designed for domestic waste.	disposal. Domestic waste production at Grasberg is limited to box lunch food wastes. Separate collection containers has been established.		
	WM21 PTFI should ensure the avoidance of e-waste delivered to Koteka Landfill and MP 73.	PTFI has finalized and socialized procedures necessary to ensure e-waste is properly segregated and disposed. See WM 1 Above.	Facilities Management	Complete
	<u>WM22</u> Sludge from Leachate Treatment Plant (LTP) drying bed is disposed to domestic landfill. It is suggested to do TCLP test before placing in landfill.	TCLP test will be conducted to ensure the LTP drying bed sludge is acceptable to place in the domestic landfill. In the meantime, the LTP sludge will be managed as B3 waste.	Environmental	Complete
	WM23 At MP38 landfill, the correction factor resulting from the calibration process for weight scale should be considered for data recording.	The correction factor for weight scale calibration will be recorded. Starting in Jan 2015, correction factor is being included in reporting.	Facilities Management	Complete
	WM24	The groundwater monitoring wells have been installed at MP38 landfill.	Geotechnical Services, HL FM and Environmental	Complete

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Waste Management	Install the monitoring wells for monitoring of potential contamination of groundwater in the area of the inert landfills.	The groundwater monitoring wells have been installed at MP73 landfill		
	WM25 Continue with the operation of commissioned grey water treatment system as well as recalculate the capability of the existing Sewage Treatment Plant (STP) to treat the increased organic wastes due to increased personnel living in Ridge Camp.	The grey water system has been handed over to operating group to complete modifications. Along with this system, additional efforts to reduce other excess water consumption at Ridge Camp and the debit of the STP are in progress. This will continue to be monitored and evaluated.	Facilities Management	Complete
	WM26 In order to maintain process stability and continual compliance beyond scheduled effluent sampling, it is suggested to define in-process parameters covering debit, pH, DO, SV, MLSS, MLVSS, sludge age and colour (commitment to continual improvement). It would be better for system improvement if inlet-outlet quality is monitored periodically	All the additional process parameters listed are being monitored and compared to targets recommended by consultants.	Facilities Management	Complete

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Waste Management	for NO3, NO2, PO4, in addition to routine parameters.			
	WM27 Evaluate the new hydraulic loading to the LTP and cap Cell 1 and Cell 2 using impermeable layer to reduce water infiltration.	The potential hydraulic loading for the lined landfill cells was evaluated in the Long Term Master Plan for MP38 landfill.	Facilities Management	Complete
	WM28 Reduce the volume of rainwater falling into active landfill areas, by placing a temporary cover such as an impermeable media like HDPE.	The potential hydraulic loading for the lined landfill cells was evaluated in the Long Term Master Plan for MP38 landfill.	Facilities Management	Complete
	WM29 Ensure proper drainage of surface runoff. There is no surface drainage facility on any of the PTFI landfills.	Surface drainage on MP38 landfill was addressed in the Long Term Master Plan and whas been improved.	Facilities Management	Complete
	WM30 Ensure that effluent from LTP is not discharged to STP.	The effluent from LTP is not discharged to STP.	Facilities Management	Complete

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Waste Management	WM31 At Grasberg MegaShop, prevent external water runoff such as surface runoff flowing into OWS collection chamber.	Surface drainage around Mega Shop will be evaluated and improvements to minimize flow into the OWS will be made. Surface water falling on the Mega Shop concrete apron must be collected in OWS due to potential oil contamination. OWS will be maintained and checked routinely to ensure the effluent meets permit standards.	Mine Maintenance	Complete
	WM32 Evaluate the influence of heavy rainfall on water quality in un-covered MegaShop OWS collection chamber.	Consistent results from Mega Shop OWS meeting the discharge standard indicate the direct rainfall contribution is not significantly detrimental to OWS performance.	Mine Maintenance	Complete
	WM33 Restore the performance of the OWS in KPI.	The Oil Water Separator (OWS) in the KPI shops are monitored and corrective actions taken as required. MP 66 KPI shop changed the OWS design with positive results demonstrated in the first half of 2015. MP 38 shop	KPI	Complete

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Waste Management		OWS consistently meets standards.		
	WM34 In LIP and electric shop, give appropriate identification of hazardous wastes (used absorbent, toner wastes).	Hazardous wastes have been appropriately identified and segregated, especially in the LIP electric shop.	Environmental/ Supply Chain Management	Complete
	WM35 At dewatering plant, construct new 150 ft. thickener system to manage discharge to the environment.	Thickener system construction is complete and startup operations are under way.	Dewatering Plant Ops	Complete
	WM36 Continue excavation and processing of impacted soils through the soil washing plant, fill excavation with clean soils and cap areas with fly ash cement.	This process of soil cleanup and concrete cover is complete. Remaining materials will be capsulated by fly ash and cement mix.	Dewatering Plant Ops and Pipeline Maintenance	Complete
	WM37 Facilities Management (FM) highland need more comprehensive calibration management and add correction value as reported in the calibration result	Succofindo has been contracted to manage the calibration of all FM flowmeters at Sewage Treatment Plants, Water Treatment Plants, and for medical waste.	Facilities Management	Complete

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	certificate, which is not presently being conducted.			
	WM38 PTFI to make a matrix with details of applicable environmental regulations and other required articles and sub articles for the purpose of comparing each individual requirements with any documentation, facilities, practices and personnel, after which compliance can be fully evaluated.	The matrix is in place and compliance evaluations are conducted quarterly.	Environmental	Complete
	WM39 Increase level of implementation of Environmental Management Program Action Plan Number 06 regarding energy efficiency and conservation plan because these programs and actions have not been recognized by some of departments	A modified energy efficiency and conservation plan EMP has been established for 2015. More efficient lighting is specifically being addressed in offices and housing.	Environmental	Complete
	WM40 Proper housekeeping is recommended in all PTFI facilities.	Housekeeping improvements will continue to be pursued in all operating areas.	Concentrating	Complete

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Water Quality and Quantity	WQ1 Final water management structures will be constructed for the Lower Wanagon OBS once the valley fill has been completed. However temporary water routing channels should continue to be established and actively maintained to ensure as much surface water as possible is diverted away from the active surface of the Lower Wanagon OBS.	Lower Wanagon construction plans include rerouting surface water away from the surface of the OBS.	Grasberg Operations	Complete
	WQ2 The potential for water quality impacts in the receiving streams associated with tailings generated by processing of the partially oxidized low grade ore stockpile should be evaluated and mitigation procedures should be developed well in advance of stockpile processing.	Fine low grade ore is being used to cover the slope of Bali low grade stockpile to minimize the oxidation and layering. 1m limestone is required to minimize the risk of acid leaching. Minimizing oxidation at Bali low grade ore stockpile is required to ensure the optimum metal recovery as well as minimum ARD release. The top of each lift is compacted and layered using 1m limestone to minimize the risk of acid	Strategic Planning Phoenix	Complete

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		leaching of the underlying ore from the overlying lift.		
	WQ3 Monitoring and analysis of groundwater data from installed wells to the west of the ModADA should be continued. It is recommended for a new multi-level (nested) observation well to be installed (including logging to determine sub-surface) in east Timika.	New nested groundwater wells have been installed and a consultant has been retained to assist in modelling and interpretation of results and recommending improvements to the program.	Environmental	Complete
	WQ4 The 100-year storm event for the Macken Ditch should be reassessed/updated using the most recent meteorological data and the adjacent road's ability to adequately transfer storm events that exceed the capacity of the Macken Ditch should be quantitatively verified. Debris from the Macken and Markovich ditches must be regularly removed.	The 100-year storm event has been updated. Debris is monitored and removed as necessary.	Concentrating	Complete

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	WQ5 Recognizing the importance of sediment control from construction and fly ash storage areas at the Dewatering Plant facility, it is recommended for TSS monitoring at the discharges from the facility be instituted/continued, until the new water/sediment control structures being commissioned are demonstrated to have successfully reduced TSS loading to the estuary.	A Stormwater Management Plan is in place. Sediment control structures are being comissioned, and qualitative monitoring is being continued. Quarterly review meetings of fly ash utilization projects are planned to focus attention on improving this performance.	Concentrating	Complete
Air Quality	AQ1 PTFI CO2 emission estimations should be verified because emission factors for mobile sources would be different due to challenges of terrain/slopes and type of heavy equipment that may have higher fuel consumptions and emissions.	The estimation of CO2 total emissions based on fuel consumption minimizes any impact on efficiency due to the factors mentioned. Fuel consumption for each vehicle is monitored, allowing inefficient vehicles to be upgraded. Complete	Environmental	Complete
	AQ2	The specific activities used in estimation of GHG emissions will be listed in the next annual review.	Environmental	Complete

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	Detail the activities emitting Greenhouse Gases (GHG) for both stationary and mobile sources			
	AQ3 Develop an EMP that addresses all engines that cannot meet emission threshold limit for NOX and need to be installed with Selective Catalytic Reduction (SCR) units, although this needs longer time to complete after considering business and financial implications.	The EMP is in place for 2016 and a team has been formed to develop the long term stategy.	Concentrating	Complete
	AQ4 Define the procedures which cover the required temperature and associated records in order to prove that the operation of two SCR Units at PT Puncak Jaya Power is well managed.	Operating procedures have been reviewed and revised as necessary.	Concentrating	Complete
	AQ5	Work has been completed for Mahaka Lime Plant and will be	Concentrating	Complete

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	Define and set upper and lower temperature limits for Mahaka Lime Plant and DWP dryer DCS units since these are required to run continuously all the times.	defined and reset in the operating permit for DWP during renewal late in 2015. DWP permit renewal was expected in 2015, but actually issued by MoEF in March 2016.		
	AQ6 PTFI should make an inventory of air emission from mobile sources, specifically above-ground vehicles, to be used as the basis for reducing GHG impacts.	Generally accepted emission factors for different types of vehicles on site are being used to establish baseline emissions. Fuel consumption on individual vehicles is monitored.	Environmental	Complete
Reclamation and Mine Closure	R1 PTFI should perform a complete, repeat analyses and synthesis of terrestrial and aquatic biodiversity management and monitoring in order to include these issues in the plan for Grasberg open pit closure in approximately 2016 as well as mine closure.	The Mine Closure Plan approved by goverrnment regulators includes targets for biodiversity indicators related to closure of the open pit areas. A Biodiversity Strategic Action Plan (BSAP) has been drafted which will further address this finding.	Environmental	Complete

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	R2 Need an integrated and comprehensive SOP for reclamation, which contains detailed work instructions for the entire reclamation procedure, including plant preparation, preparation of soil medium, transplanting and monitoring.	The indicated SOPs and Work Instructions have been prepared and approved by management.	Environmental	Complete
	R3 Need clarification and further action to sequence materials genetics for F2 generation of cross-breeding earthworm species for soil fertilization and vermicomposting in reclamation.	A graduate student has studied this issue and a report signed by a university professor has finalized. Results of the study show that only endemic species were found in reclamation areas.	Environmental	Complete
	R4 Needs specific SOP for nursery activities to handle seeds/seedlings, maintenance and record/database management.	The nursery SOP E-09-32 is complete.	Environmental	Complete
	R5 Need monitoring plots in the new established island in Ajkwa delta to	Appropriate monitoring plots have been established for Ajkwa Island and surrounding area. Ajkwa Island, Serayu Island, and	Environmental	Complete

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	monitor every stage of mangrove succession, from beginning to climax.	Pasir Hitam. Monitoring was completed in 2014.		
	R6 Require additional studies and more detailed plans for critical aspects of water management and waste treatment as mine closure approaches. Additional water balance, geochemical and water quality modelling studies are required to develop a detailed post-mine water management plan and provide scientifically defensible predictions of the duration required for water treatment to meet post-closure water quality objectives. Updated closure cost estimates will also need to be developed once the detailed post-mine water management plan has been developed.	Further development of future water management and waste treatment issues will be addressed to meet closure requirements. A comprehensive water management study is in progress in order to predict water quantity and quality as part of underground mining planning.	Hydrology	TBD
	R7 Subsequent to the closure of the Grasberg open pit and start of the Grasberg Block Cave operations, subsidence within the Grasberg open pit	Subsidence area has been predicted and monitoring has been planned.	Environmental	Complete

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	and in some areas of the OBS, predominantly Carstenz OBS is expected. The potential impact of subsidence on OBS covers (ARD control) and reclamation/revegetation success will require monitoring and management measures.			
	R8 PTFI has commissioned a consultant to complete a Wanagon OBS Closure Plan. This plan should include the design basis and criteria for closure, review and rank closure design alternatives, provide a detailed design for the selected alternative and provide a cost estimate for initial closure.	Plan is being finalized. EMP #2-2015 addresses the recommendation.	Environmental	Complete
Biodiversity	B1 Need for development of Biodiversity Strategic and Action Plan for certain period of time to provide direction for all biodiversity and conservation activities. PTFI could refer to applicable rules,	A workshop has been held at site involving both national and international experts to lay the groundwork for the Biodiversity Strategic Action Plan. The draft plan has been completed using outcomes from that workshop.	Environmental	Complete

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	including Indonesia Biodiversity Strategy and Action Plan (IBSAP) 2003–2020.			
	B2 Need to determine the flagship species/keystone species for every specific bioregion based on their conservation status as an indicator for PTFI's Biodiversity Conservation efforts.	This determination is included in the Biodiversity Strategic Action Plan (BSAP) to follow initial comprehensive surveys. An SOP was developed and implemented to determine flagship/keystone species for each bioregion. Experts will be brought in to determine the flagship/keystone species of flora and fauna.	Environmental	Complete
	B3 Need further assessment/research and develop a SOP to handle the issue about an indication of alien and invasive plants and animals in PTFI's COW.	The related SOPs will be revised and socialized as they relate to the PTFI COW area. Also mentioned in BSAP document.	Environmental	Complete
	B4 For biodiversity management, there is a need for time series/periodical data from routine monitoring.	Time series data is being presented for evaluation using the existing database. The draft BSAP includes a plan to improve the biodiversity data	Environmental	Complete

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		management system incorporating the database tools currently in place for environmental monitoring. Work is underway to utilize the existing environmental monitoring database protocol for reclamation and biodiversity data.		
	B5 Need additional permanent plots to represent unique ecosystem near impacted area (e.g., transition vegetation zone in HEAT road) and to replace inaccessible permanent plots (sago forest, lowland rain forest, heath forest, etc.). Also it is necessary to establish monitoring plots or transects to understand "the edge-effect" between the impact area and pristine area, and how they affect each other in regards to ecology and biodiversity.	The establishment of additional permanent plots is included in the development of the BSAP. Permanent monitoring plots have been established and incorporated into the Reference Monitoring Program.	Environmental	Complete

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	B6 Need action plan to save PTFI's biodiversity sample collection as it is one of the important biodiversity reference collection in Indonesia and New Guinea.	Improvement of the reference collection is being done. Some conversations were made with UNIPA and LIPI for future cooperation programs for the management of reference collection.	Environmental	Complete
	B7 Need fish stock assessment and start to develop coastal integrated management plan to include all stakeholders in Timika. The coastal and fisheries management in the area eventually might directly or indirectly require the involvement of PTFI.	Fish stock assessment studies are regularly conducted. Significant preparatory work has been completed on a framework coastal management plan. The plan elements were socialized to stakeholders on 13 May 2016.	Environmental	Complete