PIGGERY PROJECTS
ENVIRONMENTAL MANAGEMENT PLAN

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMANCE OF MITIGATING MEASURES
A. Construction Phase		
A.1 Site Development		
Generation of spoils such as excess fill materials from grading and excavation activities	• Excess spoils to be hauled by third party hauler for proper disposal • Trucks should be thoroughly washed before leaving the project site to avoid the transfer of mud/dirt in the road	100% of excess spoils collected/hauled
Degradation of surface water quality due to contamination from domestic wastewater	• Provide (indicate number) of portalets for construction workers *Note: at least one (1) portalet for 60 workers where the number of male workers exceeds 500 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)* *Note: at least one (1) portalet for 25 workers where the number of male workers exceeds 100 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)* • Provision of temporary septic tank or wastewater collection system for workers • Hauling of wastewater from portalets/septic tank by third party shall be covered by a licensed/permit from LGU and with valid Discharge Permit for the wastewater treatment facility	100% no discharge of untreated domestic wastewater to nearby bodies of water
Potential siltation of nearby water bodies due to soil erosion	• Provision of drainage systems to minimize and control infiltration of sediments to the nearby water bodies • Provision of an easement from water bodies at least three (3) meters in urban areas, twenty (20) meters in agricultural areas, and forty (40) meters in forest areas in compliance to the Water Code of the Philippines	100% no erosion/siltation
Generation of dust from site preparation	• Maintain a misty access road surface within project site by sprinkling of water at least (2x) twice a day during dry season	100% no dust generation
Generation of construction debris	• Proper collection of construction debris Solid Waste Management Program in compliance to RA 9003 • Collection of construction debris third party hauler with valid permit/clearance from LGU	100% collected/hauled construction debris

Generation of used oil, paint, batteries, and other hazardous wastes	• Provision of storage for hazardous wastes with proper labelling • Ensure that there will be no leaks of hazardous wastes from the storage • Collection of hazardous wastes by DENR accredited 3rd party hauler and treater	100% compliance to RA 6969
B. Operational Phase		
Pollution of surface water from untreated wastewater	• Provision of Wastewater Treatment Facility (WTF) using the following system: ☐ Lagoon system (e.g. anaerobic lagoon, facultative lagoon, etc.) ☐ Biogas capture system (anaerobic digester, gas capture system, etc.) • The WTF shall be provided with a flow meter and an appropriate and accessible sampling stations • Zero Discharge may be adopted or re-use of the treated wastewater for flushing toilets. If the treated wastewater will be used for irrigation for non-food applications, it sould pass the DENR emission standards. If the treated wastewater will be used for irrigation, it should be certified by the Department of Agriculture that the wastewater is fit for irrigation use • Provision of water sampling probe at the outfall and facility for online transmission of effluent data to EMB RO (if necessary)	100% conformance to DENR effluent standards (RA 9275)
Generation of domestic wastewater	• Provision of sewage treatment plant with capacity based on the total personnel/workers in the plant ☐ Hygienic septic tank (for 212 occupants or less – DILG MC 2019-62) with regular desludging by third party contractor (the contractor must have a valid discharge permit of its treatment facility) ☐ Wastewater treatment facility (for more than 212 occupants – DILG MC 2019-62) • Note: For 98L per person per day water consumption; 80% will become wastewater – hence for 300 persons; at least 23.52 cubic meter per day WTF capacity shall be installed and operated	100% compliance with DENR effluent standards (RA 9275); (i.e.DAO 2016-08 and DAO 2021-19)

Generation of hazardous wastes materials	• Provision of storage facility/area and collected by hazardous wastes DENR accredited third party hauler and treater	100% compliant to RA 6969
Generation of non-hazardous solid wastes	• Provison of Materials Recovery Facility (MRF) • Segregation of wastes with proper labelling, and wastes materials manifest indicating the volume of waste and date of collection/segregation • Hauling of non-hazardous wastes/domestic wastes by third party contractor with permit/clearance from LGU for proper disposal of wastes (ie. for composting/conversion to fertilizers or as fuel in Waste to Energy Power Project)	100% compliant to RA 9003
Emission of foul odor	• Regular cleaning of pigpens. The wastewater (with excrement/feces) generated shall be treated directly to the wastewater treatment facility • Use a closed pipe system for transport of wastewater to the WTF • Sludge from the WTF shall be stored in a enclosed structure to avoid any foul odor emission. Likewise, sludge can be used as compost material and shall be made available to community for distribution through its Corporate Social Responsibility (CSR) • Use enclosed sand filter and drying bed for sludge treatment • Planting a row of evergreens and fast growing trees to serve as odor barrier and/or provision of high wall or high fence sufficient enough for non dispersion of foul odor coming from the piggery	No foul odor perceive in the community
Generation of effluents due to wastewater generation	• Monitoring of the following significant effluent quality parameters (based on PSIC Code 014): ☑ BOD ☑ Total Suspended Solids ☑ Total Coliform ☑ Ammonia ☑ Phosphate	100% compliance with DENR effluent standards (RA 9275); (i.e.DAO 2016-08 and DAO 2021-19)