

FORM - 1

APPENDIX I
(See paragraph – 6)
FORM - 1

I Basic Information												
S. No.	Item	:	Details									
1.	Name of the Project	:	Masonry Stone Mine (Quarry) project of M/s Parackal Rock Products									
2.	S. No. in the schedule	:	1(a)									
3.	Proposed capacity/ area/ length/ tonnage to be handled /command area/ lease area /number of wells to be drilled	:	Proposed Capacity 1,44,000 MTA Area 3.3068 hectares Mineable reserves 19,04,721 MT Life of Mine About 15 years									
4.	New/ Expansion / Modernization	:	New Quarry Project									
5.	Existing capacity/ Area etc.	:	New Quarry Project (Not applicable)									
6.	Category of project i.e. 'A' or 'B'	:	"B"									
7.	Does it attract the general condition? If yes, please specify.	:	No									
8.	Does it attract the specific condition? If yes, please specify.	:	No									
9.	Location	:	The proposed building stone quarry project is situated at Survey Nos. 284/2-3 (Part), 284/2-4, 284/2-2, 279/2-1 (Part), 279/2-2, 279/2-1 (part), Mazhuvannoor Village, Kunnathunadu Taluk, Ernakulam District, Kerala in an area of 3.3068 hectares. The geographical location of the mine with respect to the pillar boundary area is given below:- <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Latitude (N)</td> <td>10°02'32.1"N to 10°02'41.4"N</td> </tr> <tr> <td>Longitude (E)</td> <td>76°28'31.9"E to 76°28'40.1"E</td> </tr> </table>	Latitude (N)	10°02'32.1"N to 10°02'41.4"N	Longitude (E)	76°28'31.9"E to 76°28'40.1"E					
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	Plot/ Survey/ Khasra no.	:	Survey Nos. 284/2-3 (Part), 284/2-4, 284/2-2, 279/2-1 (Part), 279/2-1 (part), 279/2-2 Land status : Private own land (3.3068 hectares)									
	Village	:	Mazhuvannoor									
	Tehsil	:	Kunnathunadu									
	District	:	Ernakulam									
	State	:	Kerala									
10.	Nearest Railway station/ Airport along with distance in kms.	:	<table border="1"> <thead> <tr> <th>Particulars</th> <th>Name</th> <th>Distance (From lease)</th> </tr> </thead> <tbody> <tr> <td>Railway Station</td> <td>Aluva Station</td> <td>18 km, NW</td> </tr> <tr> <td>Airport</td> <td>Cochin Airport</td> <td>20 km., NW</td> </tr> </tbody> </table>	Particulars	Name	Distance (From lease)	Railway Station	Aluva Station	18 km, NW	Airport	Cochin Airport	20 km., NW
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Railway Station	Aluva Station	18 km, NW										
Airport	Cochin Airport	20 km., NW										

11.	Nearest Town, City, District Headquarters along with distance in kms.	:	Particulars	Name	Distance, Direction (From lease)
			Nearest City	Ernakulam	22 km, SW
12.	Village Panchayat, Zilla Parishad, Municipal Corporation, Local body (Complete postal address with telephone no. to be given).	:	<p><u>Village Office address :-</u> Village Officer, South Mazhuvannoor Village Office, Airapuram, Kunnathunadu, Ernakulam, Kerala- 683541.</p> <p><u>Panchayat Office address :-</u> Panchayat Secretary, Mazhuvannor Panchayat Office, Airapuram College Junction - Kilikulam Rd, Airapuram, Ernakulam, Kerala 683541 Tel. No. 0484-2767309</p>		
13.	Name of the applicant	:	M/s Parackal Rock Products.		
14.	Registered address	:	Nil		
15.	Address for correspondence				
	Name	:	Shri. P. K. Prasad		
	Designation (Owner / Partner / CEO)	:	Proprietor		
	Address	:	Shri. P. K. Prasad, Proprietor, M/s Parackal Rock Products, Parackal House, North Mazhuvannoor P.O, North Mazhuvannoor, Ernakulam District, Kerala – 686 689		
	Pin Code	:	686 689		
	E-mail	:	parackalrockproducts@gmail.com		
	Telephone no.	:	094477 47315		
	Fax No.	:	Nil		
16.	Details of alternative sites examined, if any. Location of these sites should be shown on a Toposheet.	:	The proposal is for the mineral specific hence no alternate site was examined.		
17.	Interlinked projects	:	Nil		
18.	Whether separate application of interlinked project has been submitted?	:	Not applicable		
19.	If yes, date of submission	:	Not applicable		
20.	If no, reason	:	Not applicable		
21.	Whether the proposal involves approval / Clearance under: if yes, details of the same and their	:			

	status to be given. (a) The Forest (Conservation) Act, (1980)? (b) The Wildlife (Protection) Act, 1972? (c) The C.R.Z. Notification, 1991?		Not Applicable Not Applicable Not Applicable
22.	Whether there is any Government Order / Policy relevant / relating to the site:	:	The following Govt. Orders / Policies are to be followed:- ➤ Kerala Minor Mineral Concession Rules, 2015. ➤ Mines Act, 1952 ➤ Explosive Rules, 2008 ➤ Kerala Panchayat Raj Act, 1994 ➤ Central Ground Water Authority ➤ Water Pollution (Prevention & Control) Act, 1974 ➤ Air Pollution (Prevention & Control) Act, 1981 ➤ Environment Protection Act, 1986 ➤ EIA Notification, 2006 / 2009 ➤ The Kerala Promotion of Tree Growth in Non-Forest Areas (Amendment) Act, 2007.
23.	Forest land involved (hectare)	:	No
24.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (a) Name of the Court (b) Case No. (c) Orders / directions of the court, if any and its relevance with the proposed project.	:	No litigation is pending against the lease area/ applicant of the proposed lease area in any court of law.
25.	Expected cost of the project	:	Rs. 2 Crores
*Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)			
II		Activity	
	1.	Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)	

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change on land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Land use: - The project site is private owned land. There is expected to be change in the land use as mining area in the core zone. The highest elevation of the lease area is 86 m MSL and lowest is 70 m MSL. As the proposed area is hilly, the drainage is towards East. However, any other significant impact will be confined within the lease area.
1.2	Clearance of existing land, vegetation and buildings?	Yes	The part of proposed rocky area has native trees, climbers, grass, shrubs, herbs etc. There is no existing building in the proposed area.
1.3	Creation of new land uses?	Yes	The present land use as per the revenue record is private owned land. The new land use pattern will be as follows as per post operational use :- 1. Excavated Pit : 2.3446 ha. (reclaimed by plantation). 2. Drainage : 0.03 ha 3. Green belt: 0.6922 ha. 4. Top soil dump : 0.24 ha.
1.4	Pre-construction investigations e.g. bore holes, soil testing?	No	Not applicable
1.5	Construction works?	Yes	Facilities like site office, labour quarters and magazine area will be developed.
1.6	Demolition works?	No	Not applicable
1.7	Temporary sites used for construction works or housing of construction workers?	No	Not applicable
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations.	Yes	The proposed project activity involves about 71% of the pit area for exploiting the building stone up to the conceptual phase. As the area is devoid of any structures above ground so there will not be any impact due to mining activity. The production will have in 2.3446 ha. area as pit at the conceptual stage. The extent of impact will however be confined to lease area only.

1.9	Underground works including mining or tunneling?	No	There will be no underground mining activities. The mining will be done by open cast semi-mechanized method of mining.
1.10	Reclamation works?	Yes	At the end of life of mine, the total excavated area will be 2.3446 ha. and the same will be reclaimed by plantation with a water body.
1.11	Dredging?	No	Not Applicable
1.12	Offshore structures?	No	Not Applicable
1.13	Production and manufacturing processes?	Yes	<p>The mining will be done by semi - mechanized opencast method as per approved Mining Plan. It includes blasting, loading, transport and excavation activities.</p> <ul style="list-style-type: none"> ➤ The working will be done by forming benches of 5.0m (average) height. ➤ Mining will be started from the first year with systematic working. ➤ The height & width of the bench will not be kept more than 5 m to 6 m respectively. ➤ The mining will be done with the help of tools such as drills, jack – hammer, compressors, picks, excavators etc. <p>The impact on physical environment will be significant and confined to lease area. There will be change in land cover, topography & vegetal cover as depicted in point no. 1.3.</p>
1.14	Facilities for storage of goods or materials?	Yes	<p>Facilities will be developed for :-</p> <ol style="list-style-type: none"> 1. Mineral will be transported to designated place. 2. Top soil and waste generated during the plan period will be dumped outside the mining area at pre determined place and will be utilized over reclaimed areas for plantation. 3. Overburden will be utilized within the pit for lying of haul road and at the end, it will be use for soil base for plantation.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p><u>Solid Waste</u></p> <p>A total quantity of 56,260 cu. m. of topsoil and 61,886 cu. m of over burden will be removed during the mining operations. The topsoil</p>

				excavated from the quarry will be dumped separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation. OB will be utilized for laying internal haul road and will form base in reclamation / plantation. <u>Liquid Effluent</u> The sewage to a tune of 0.80 KLD generated from the mine office will be diverted to the septic tank followed by soak pit.
1.16	Facilities for long term housing of operational workers?	Yes	Labour quarters will be provided within the complex but outside the proposed mining area.	
1.17	New road, rail or sea traffic during construction or operation?	Yes	For the purposes of mining activities, existing roads are sufficient. However, haul road will be suitably developed within the proposed area.	
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	Yes	For the purposes of mining activities, existing roads are sufficient. However, haul road will be suitably developed within the proposed area.	
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not Applicable	
1.20	New or diverted transmission lines or pipelines?	No	Not Applicable	
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of water courses or aquifers?	Yes	The run-off from the lease area will be suitably collected through channels and will be stored in storm water pond for further utilization in Mine/ Crusher units. However, all measures will be taken to not to disturb the natural drainage system of the surrounding area	
1.22	Stream crossings?	No	Not applicable	
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	The water to a tune of 1 KLD will be drawn from the wells for domestic purpose.	
1.24	Change in water bodies or the land surface affecting drainage or run - off?	No	There will be no change in water bodies. The change in the land surface due to mining will not affect the surface drainage or run off.	
1.25	Transport of personnel or materials for construction, operation or	Yes	Vehicles will be engaged for mineral and material transport. About 24 trips of 20 T capacity will be	

	decommissioning?		utilized for transporting the mineral on daily basis.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	At the end of life of mine, excavated pit will be backfilled and reclaimed and rehabilitated by plantation with native species so as to restore the natural eco-system.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	Yes	At the end of life of mine, reclamation of the area will be carried out. Suitable plantation with shrubs, herbs & trees will be done as a part of eco-restoration work.
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Due to the mining activity and due to the attached ancillary unit, there will be workers attracted to the project area. It is proposed to employ 20 persons in the project.
1.29	Introduction of alien species?	No	Not applicable
1.30	Loss of native species or genetic diversity?	Yes	Due to the mining activities, there will be loss of some native species and vegetation. However, some of these species will be planted at the end use for eco-restoration.
1.31	Any other actions?	No	Nil
2.	Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):-		
	Information/ checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The lease area consists of 3.3068 hectares which is private land and present land use is rocky land with mining activities.
2.2	Water (expected source & competing users) unit: KLD	Yes	The daily water demand will be only 5 KLD. Well water to meet the drinking water and other domestic water requirement about 1 KLD of the workers and the staff. A storm water collection pond for meeting the water requirements of ancillary units and other dust separation systems will be developed.
2.3	Minerals (MT)	Yes	It is a mining project for excavation of building stone. Production will be about 1,44,000 MTA in phase 1 (first 5 years) and 1,18,000 MTA in phase 2 (6 th year to 15 th year). This product is available in abundance in Kerala and some other

				states and is being used in construction of roads and buildings.
	2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	The small scale infrastructure facilities like mine office, labour shed, canteen, etc. will be developed within own property.
	2.5	Forests and timber (source – MT)	No	Not applicable
	2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Electricity:- The total power requirement will be 75 kW, which will be drawn from diesel engine. Fuel Quantity – 16 to 20 lt/ hr.
	2.7	Any other natural resources (use appropriate standard units)	Yes	Use of solar energy for external lightings.
	3.	Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.		
	S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
	3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	Nitrate mixture which is an explosive substance and is hazardous. Also the detonators used for blasting is a hazardous chemical. However, a limited quantity in compliance with Explosives Act will be stored in the magazine for safety of the workers.
	3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not applicable
	3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	The present project will directly / indirectly develop the area by providing employment opportunities. With the proposed development in and around the area there will be many supporting facilities / infrastructure eventually leading to the development of the area.
	3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	Yes	The nearest habitation is about 101m toward East side; all necessary measures will be taken to operate the mine in compliance with air, water, noise and vibration standards from time to time.
	3.5	Any other causes	No	Not applicable
	4.	Production of solid wastes during construction or operation or decommissioning (MT/month)		
	S.	Information/Checklist	Yes/	Details thereof (with approximate quantities /

No.	confirmation	No	rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	About 56,260 cu.m of top soil and 61,886 cu.m. of overburden will be generated from the proposed mine.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	The municipal solid waste generated from the labour quarter will be suitably disposed along with reclamation or back filling.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Negligible in quantity like used oil which will be disposed to the local recyclers.
4.4	Other industrial process wastes.	No	Not applicable
4.5	Surplus product.	No	Not applicable
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	The sludge generated from the septic tank on a periodical basis will be dried and will be used as manure in plantation.
4.7	Construction or demolition wastes.	No	Not applicable
4.8	Redundant machinery or equipment.	No	Not applicable
4.9	Contaminated soils or other materials.	No	Not applicable
4.10	Agricultural wastes.	No	Not applicable
4.11	Other solid wastes.	No	Not applicable
5.	Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)		
S. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources.	Yes	<p>Diesel engine emissions rates (Unit - g/kWhr) are given below: PM - 0.3; NO_x - 9.2; CO - 3.5; HC - 1.3</p> <p>Transportation: Movement of vehicles will generate dust. The transportation activities on unpaved area results in fugitive emissions to the tune (Unit - kg/Veh.mT) of 1.261 for PM₁₀ and 0.126 for PM_{2.5} (USEPA-AP42 series).</p> <p>Gaseous Emission rate (Unit - g/kWh) due to transportation: CO - 5.45; HC - 0.78; NO_x - 5.0</p> <p>All measures will be taken to restrict the emission within CPCB norms.</p>

5.2	Emissions from production processes.	Yes	<p>The proposed production will be 1,44,000 MTA. Dust is the main pollutant, which will be generated mainly from mining activities (drilling, blasting & excavation) and vehicle movement. The different measures taken to control dust emissions are given below:-</p> <ul style="list-style-type: none"> ➤ Water sprinkling on haul roads ➤ Wet drilling ➤ Limiting the speed of the vehicles ➤ Regular maintenance of vehicles/ equipments ➤ Loaded Trucks will be covered with tarpaulin sheets during transportation ➤ Greenbelt development
5.3	Emissions from materials handling including storage or transport.	Yes	<p>There will be fugitive emissions generated during material handling, transportation, loading and unloading etc. Regular water sprinkling on haul road will suppress the dust particles and prevent them from getting air-borne.</p> <p><u>Transportation</u></p> <p>Movement of vehicles like dumpers, trucks, tankers etc. will also generate dust. The transportation activities on unpaved area results in fugitive emissions to the tune of 1.261 kg / VkmT for PM₁₀ and 0.126 kg/VkmT for PM_{2.5}.</p>
5.4	Emissions from construction activities including plant and equipment	No	Not applicable
5.5	Dust or odors from handling of materials including construction materials, sewage and waste.	Yes	<p>There is no odor from handling of material. Only dust will be generated from transportation & handling materials. The dust emission will be controlled by adopting suitable measures viz. water sprinkling, plantation, making enclosures & maintaining roads. Personnel Protective Equipment (PPE's) will be provided to the workers. Periodical medical examination will be arranged to the employees at intervals of not more than 5 years.</p>
5.6	Emissions from incineration of waste	No	Not applicable

	5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not applicable
	5.8	Emissions from any other sources	No	Not applicable
	6.	Generation of Noise and Vibration, and Emissions of Light and Heat		
	S. No.	Information/ Checklist confirmation	Yes / No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Mining operation is being carried out by semi-mechanized method. However based on production capacity mining equipments configuration with expected noise levels (in dB(A)) will be as under:- Excavator - 95 - 100 Compressor - 81 Tippers/ Trucks - 84 - 86 Mobile Crane - 83 Mitigation Measures:- ➤ Maintenance of machinery ➤ Enclosed cabins in excavator ➤ Earmuff & earplug ➤ Periodical medical checkup ➤ Noise level maintained to 85dB(A)
	6.2	From industrial or similar processes	No	Not applicable
	6.3	From construction or demolition	No	Not applicable
	6.4	From blasting or piling	Yes	Controlled Blasting (Milli second electric) technique will be adopted to restrict PPV levels well below DGMS standards of <15 mm/ sec at all times. The blasting will be done at designated hours i.e. 10:00 am, 01:00 & 05:00 pm.
	6.5	From construction or operational traffic	Yes	Due to vehicular traffic and material transportation within the lease area, noise will be generated. However, the expected noise levels will be well maintained within the DGMS and CPCB norms.
	6.6	From lighting or cooling systems	No	Not applicable
	6.7	From any other sources	No	Not applicable
	7.	Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:-		
	S.	Information / Checklist	Yes/	Details thereof (with approximate quantities /

No.	confirmation	No	rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	NFO Mixture is proposed to be used for blasting purpose. Due care will be taken to avoid risk during handling, storage, use or spillage of explosives.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	There is no risk of contamination of land and water due to discharge of untreated wastewater. However, no untreated sewage will be discharged in the open land causing the contamination to ground water. The wastewater generated will be channelized in the septic tank followed by soak pit.
7.3	By deposition of pollutants emitted to air into the land or into water	No	During operation phase there will be mainly dust emissions from excavation, loading, unloading, mineral handling, transportation and mobile sources. Measures like controlled blasting, water sprinkling, green belt development etc. will be adopted to minimize the same.
7.4	From any other sources	No	There will not be any other sources, which will contaminate land and water resources.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Nothing will be significant.
8.	Risk of accidents during construction or operation of the project, which could affect human health or the environment.		
S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc. from storage, handling, use or production of hazardous substances	Yes	The stone quarry mine will result in increase in frequency of blasting for mining the mineral. However, controlled blasting with optimum charge of holes will be carried out to loosen the rock. Explosion hazards are envisaged due to mishandling of explosives. Explosives will be handled with utmost care in compliance of conditions imposed by Chief Controller of Explosive & Metalliferous Mines Regulation, 1961. NFO mixture, slurry explosive, safety fuse, and detonators will be used for blasting.
8.2	From any other causes	Yes	The risks of accidents are envisaged due to the

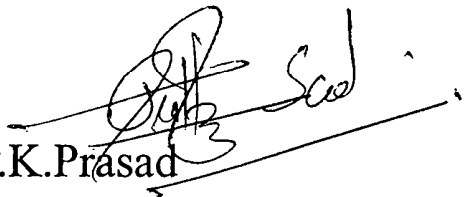
				operation of equipments, failure of mine pit etc. Pit slope will be kept at 45°. Face slope will be kept at 70°. No loose stone will be allowed near the edges of excavation and along the sites of haul road. However, good safety practices will be adopted at the site. All precautionary measures will be adopted and use of protective equipments will be mandatory. However, for minor accidents first aid measures will be provided at site.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g Floods, earthquakes, landslides, cloudburst etc)?	Yes	Zone-III, Moderate damage risk zone as per BMTPC, vulnerability atlas seismic zone of India IS: 1893-2002. There is no history of flood, earthquake, cloud burst and landslide reported so far.	
9.	Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality			
S. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data	
9.1	Lead to development of supporting cities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other 	Yes	The proposed project will directly / indirectly develop the area by providing employment opportunities. With the proposed development in and around the area there will be many supporting facilities/ infrastructure eventually leading to the development of the area.	
9.2	Land to after use of the site, which could have an impact on environment.	Yes	The land used will be fully reclaimed and rehabilitated by backfilling the pits by plantation and water body. Plantation and afforestation will add to the improvement in environment and aesthetic beauty of the area.	
9.3	Set a precedent for later developments.	Yes	There will be other ancillary developments which spring up due to the coming of the project, resulting in setting a precedent for later development.	
9.4	Have cumulative effects due to proximity to other existing or	No	Not Applicable	

		planned projects with similar effects.		
III	Environmental Sensitivity			
	S. No.	Areas	Name/ Identity	Aerial distance (within 15 km) proposed project location boundary
	1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	None within the study area
	2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	Water body: Water Canal, 4 km, W Airapuram Canal, 3 km, E Periyar River, 10 km, N Muvattupuzha, 15 km, SE
	3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migratio	No	None within the study area
	4	Inland, coastal, marine or underground waters	Yes	Water body: Water Canal, 4 km, W Airapuram Canal, 3 km, E Periyar River, 10 km, N Muvattupuzha, 15 km, SE
	5	State, National boundaries	No	None within the study area
	6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Yes	Religious places :- St. George Jacobite Church, 3 km, N Valayanchirangara Temple, 4 km, NE Juma Masjid, Kummanodu, 3 km, SW.
	7	Defense installations	No	None within the study area
	8	Densely populated or built-up area	Yes	Ernakulam City, 22 km, SW and the nearest house is 101 m towards E
	9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Nearest Hospital :- Parathuvayalil Hospital, 8 km, NE Nearest School :- St. George Public School, 7 km, E
	10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	None within the study area
	11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	None within the study area
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	Earth Quake Zone	Zone-III, Moderate damage risk zone as par BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002.	

“I hereby give undertaking that the data and information given in the application and enclosure are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage , the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.”

Place : North Mazhuvannoor

Date: 24/05/2016


P.K.Prasad