

# **Environmental Management Plan / FORM 1M**

**For**

**Environment Clearance  
of**

**Nagpur Sand Ghat Mining Project**

District Mining Officer, Collector Office Nagpur

**Submitted by:**

**District Mining Officer, Nagpur**



**Prepared by:**

**Open Arch Design & Enviro Solutions LLP**

**NABET Accreditation No: NABET/EIA/2124/IA0081**

302, Big Splash, Plot No 78 & 79,  
Sector, 17, Vashi, Navi Mumbai (Maharashtra)

# Environment Management Plan

For

## Raiwadi-A Sand Ghat, Saoner Taluka, Nagpur District, State Maharashtra

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Raiwadi-A	Saoner	Kanhan	179,180,183,184&186	3.37	450x75x0.40	4770

### Project Proponent

District Mining Officer, Collector Office, Nagpur

### Environment Consultant

Open Arch Design and Enviro Solutions LLP



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December 2021

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Raiwadi-A Sand Ghat (Gut. No.179,180,183,184&186)

**Taluka** : Saoner

**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.37ha on Kanhan River adjoining Gut. No. 179,180,183,184&186, village Raiwadi A, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 4770 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4770 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

**3. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be used for regular water spraying of 1.10 km distance of road.</p> <p>Regularly road leveling and maintenance will be done.</p> <p>Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1 Brass</p>	<p><b>Unpaved Roads</b></p> <p>Water sprinkling will be done for dust suppression for 1.10 km distance from minesite.</p> <p>To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b></p> <p>The roads will be maintained regularly. Limited speed will be adopted by transport vehicles.</p> <p>The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b></p> <p>The vehicles will be kept at good condition by regular servicing and maintenance.</p> <p>PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.30,000/- Water sprinkling</p> <p>Rs.15000/- Tarpaulin</p> <p>Rs 20,000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 20,000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>                      In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets to be provided for waste water generated from labours and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the river bed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-</p>
<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazardous waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be done in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only.</p>	<p>Rs. 25650/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			33750sq m area. Sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 30,000/- water sprinkling
<p><b>Conclusions:</b></p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Positive impact due to proposed mining activity are employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,32,850/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>					
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is	No waste/ overburden will be generated from the river sand mining project.	No waste/ overburden will be generated; thus management plan is not applicable. Domestic	--



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		absent in the proposed river sand project.		waste generated to be collected in dust bins and handed over to the local authority for disposal.	
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

**4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	20000
2.	Water Sprinkling	30000
3.	Unpaved/ Haul road maintenance	25650
4.	Occupational Health & safety (Mobile toilet and PPE - Safety Shoes, Earmuffs & Mask etc.)	132850
5.	Tarpaulin	15000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>2,48,500/-</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY**  
**'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

Name of the Mining Lease site: Raiwadi A Sand Spot over an extent of 3.37 ha. at Kanhan River Bed, Gut No 179,180,183,184 &186, Village Raiwadi A, Tehsil Saoner, District Nagpur, Maharashtra

(i) Location / site (GPS Co-ordinates):

Point	Latitude	Longitude
BP 1	21°31'14.05"N	78°56'29.36"E
BP 2	21°31'7.22"N	78°56'40.03"E
BP 3	21°31'4.25"N	78°56'39.01"E
BP 4	21°31'11.30"N	78°56'28.30"E

(ii) Size of the Mining Lease (Hectare): 3.37

(iii) Capacity of Mining Lease (TPA): 4770 Brass

(iv) Period of Mining Lease: 01 years

(v) Expected cost of the Project: INR 0.60 Crores

(vi) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or roadbridge over the concerned River, Rivulet, Nalla etc.	Road Bridge, 0.40 km towards South
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> </ul>	<ul style="list-style-type: none"> <li>• Saoner railway station at a distance of ~14.81 kms</li> </ul>

	<ul style="list-style-type: none"> <li>National Highway</li> <li>State Highway</li> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<p>towards South.</p> <ul style="list-style-type: none"> <li>NH 547 at a distance of ~8.92km towards West</li> <li>Approach road at distance of 460m towards East</li> <li>NA</li> <li>Nil</li> <li>Nil</li> <li>Raiwadi village, 1.32km, North</li> <li>Raiwadi village, 1.32km, North</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Wainganga River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 547 at a distance of ~8.92km towards West
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Raiwadi village, 1.32km, North
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Wakode Hospital, Saoner-15.15 km, South Ameya Multispeciality hospital, Saoner-15.23km, South
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sand mining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	Areas susceptible to natural hazard which could cause the project to present environmental problems (Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.

	climatic conditions)	
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	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. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan****For****Wakodi Sand Ghat, Saoner Taluka, Nagpur District,  
State Maharashtra**

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Wakodi	Saoner	Kanhan	44(Part)	3.37	500x70x0.40	4946

**Project Proponent****District Mining Officer, Collector Office, Nagpur****Environment Consultant****Open Arch Design and Enviro Solutions LLP****NABET/EIA/2124/IA0081****[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)****Contact no. :9004778386****December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Wakodi Sand Ghat Gut. No.44 (Part)  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **5. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.50ha on Kanhan River adjoining Gut. No. 44 (part), village Wakodi, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 4946 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4946 Brass per annum.

### **6. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

**7. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>3. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>4. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>3. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>4. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>5. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.30,000/- Water sprinkling</p> <p>Rs.15000/- Tarpaulin</p> <p>Rs 20000/- is proposed for baseline data for one time.</p>



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>            In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 20000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>            In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets to be provided for waste water generated from labours and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the river bed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 750/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazardous waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to</p>	<p>Rs. 25,650/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			Mining activity will be done in 33750sq m area sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	0.40 m depth and dry bed only. Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be use for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 30,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p>Conclusions: Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
	<p>Conclusion: Preference given to local people for employment as labor.</p>				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,32,850/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
	<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>				
8.	Waste/	No waste will be generated	No waste/ overburden will	No waste/ overburden will be	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Overburden	from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal	
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

**8. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	20000
2.	Water Sprinkling	30000
3.	Unpaved/ Haul road maintenance	25650
4.	Occupational Health & safety (Mobile toilet and PPE - Safety Shoes, Earmuffs & Mask etc.)	132850
5.	Tarpaulin	15000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>2,48,500/-</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY**  
**'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**BASIC INFORMATION**

- I. Name of the Mining Lease site: Wakodi Sand Spot over an extent of 3.50 ha. at Kanhan River Bed, Gut No.44-part, Village Wakodi, Tehsil Saoner, District Nagpur, Maharashtra
- II. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°24'20.43"N	79°1'10.39"E
BP-2	21°24'20.33"N	79°1'11.96"E
BP-3	21°24'19.70"N	79°1'14.75"E
BP-4	21°24'16.82"N	79°1'21.42"E
BP-5	21°24'14.49"N	79°1'24.32"E
BP-6	21°24'13.35"N	79°1'26.32"E
BP-7	21°24'12.92"N	79°1'26.97"E
BP-8	21°24'11.19"N	79°1'25.51"E
BP-9	21°24'11.88"N	79°1'24.48"E
BP-10	21°24'12.15"N	79°1'23.79"E
BP-11	21°24'12.89"N	79°1'22.61"E
BP-12	21°24'14.19"N	79°1'21.12"E
BP-13	21°24'15.00"N	79°1'19.97"E
BP-14	21°24'17.15"N	79°1'15.53"E
BP-15	21°24'17.55"N	79°1'14.01"E

BP-16	21°24'18.07"N	79°1'11.68"E
BP-17	21°24'18.17"N	79°1'10.20"E

- III. Size of the Mining Lease (Hectare): 3.50
- IV. Capacity of Mining Lease (TPA): 4946 Brass
- V. Period of Mining Lease: 01 years
- VI. Expected cost of the Project: INR 1.23 Crores
- VII. Contact Information: District Mining Officer, Nagpur

### **ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or roadbridge over the concerned River, Rivulet, Nalla etc.	Nil
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Malegaon railway station at a distance of ~6.58 kms towards East.</li> <li>• NH 47 at a distance of ~6.30km towards East</li> <li>• Approach road at distance of 4.36km towards South</li> <li>• NA</li> <li>• Nil</li> <li>• Wakodi village, 2.22km, South West</li> <li>• Wakodi village, 2.22km, South West</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or	Nil



	sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 47 at a distance of ~6.30km towards East
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Wakodi village 2.22km, South West
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Wakode Hospital, Saoner-15.15 km, South Ameya Multispeciality hospital, Saoner-15.23km, South
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (d) The Forest (Conservation) Act, 1980; (e) The Wildlife (Protection) Act, 1972; (f) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (c) Name of the Court (d) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

**Date:** \_\_/12/2021

**Environment Management Plan****For****Ramdongri -B Sand Ghat, Saoner Taluka, Nagpur  
District, State Maharashtra**

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Ramdongri -B	Saoner	Kanhan	143 (Part) & 144 (Part)	4.00	400X100X0.3	4240

**Project Proponent****District Mining Officer, Collector Office, Nagpur****Environment Consultant****Open Arch Design and Enviro Solutions LLP****NABET/EIA/2124/IA0081****[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)****Contact no. :9004778386****December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Ramdongri -B Sand Ghat, Gut No143(part)&144(Part)  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **9. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.00ha on Kanhan River adjoining Gut No143 (part) & 144(Part), village Ramdongri, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 4240 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4240 Brass per annum.

### **10. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

**11. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>5. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>6. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road.</p> <p>Regularly road leveling and maintenance will be done.</p> <p>Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.75,000/- Water sprinkling</p> <p>Rs.20000/- Tarpaulin</p> <p>Rs 85000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 85000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>                      In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<p>Mobile toilet: Rs. 1,20,000/-</p> <p>Waste bin: Rs 750/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation.</p> <p>River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p> <p>Mining activity will be done in 40000 sq m area. Sand from river will be restricted to maximum depth of 0.40 m</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019.</p> <p>Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	<p>Rs. 55,750/-</p> <p>Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.		
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be use for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 75,000/- water sprinkling
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,33,200/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>					
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed	No waste/ overburden will be generated from the river sand mining project, thus not any mitigation measure or	No waste/ overburden will be generated, thus management plan does not required for Waste/ overburden. Domestic	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		river sand project.	management plan is adopted.	waste generated to be collected in dust bins and handed over to the local authority for disposal.	
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

**12. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul road maintenance	55750
4.	Occupational Health & safety (Mobile toilet and PPE - Safety Shoes, Earmuffs & Mask etc.)	133200
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>393950</b>

**APPENDIX VIII****(See paragraph 6)****FORM 1 M****APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY  
'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE****(I) BASIC INFORMATION**

- i. Name of the Mining Lease site: Ramdongri B Sand Ghat over an extent of 4.00 ha. at Gut No143(part)&144(Part), Village Ramdongari, Tehsil Soaner, District- Nagpur, Maharashtra
- ii. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°23'40.85"N	79°0'24.93"E
BP-2	21°23'37.52"N	79°0'24.39"E
BP-3	21°23'36.41"N	79°0'28.32"E
BP-4	21°23'36.00"N	79°0'34.55"E
BP-5	21°23'37.02"N	79°0'38.47"E
BP-6	21°23'40.25"N	79°0'38.43"E
BP-7	21°23'39.21"N	79°0'34.01"E
BP-8	21°23'39.61"N	79°0'28.95"E

- iii. Size of the Mining Lease (Hectare): 4.00
- iv. Capacity of Mining Lease (TPA): 4240Brass
- v. Period of Mining Lease: 01 years
- vi. Expected cost of the Project: INR 0.53 Cr.
- vii. Contact Information: District Mining Officer, Nagpur

## ENVIRONMENTAL SENSITIVITY

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or roadbridge over the concerned River, Rivulet, Nalla etc.	Kanhan Bridge 3.15 North West
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Takli railway station at a distance of ~4.55 kms towards South.</li> <li>• SH 249 at a distance of 3.17km towards South</li> <li>• The sand spot area is connected to approached Ramdongri-khapa road at a distance of 0.50km in North.</li> <li>• Nil</li> <li>• Ramdongri village, 550m, North</li> <li>• Ramdongri village, 550m, North</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	<ul style="list-style-type: none"> <li>• SH 249 at a distance of 3.17km towards South</li> </ul>
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	<ul style="list-style-type: none"> <li>• Ramdongri village, 550m, North</li> </ul>
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Ramdongri village, 550m, North Small temple in village Ramdongri at about 400 m
12.	Areas containing important, high quality or scarce resources (ground water resources,	Kanhan River (this is the case of river sand mining)

	surface resources, forestry, agriculture, fisheries, tourism, minerals)	
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (g) The Forest (Conservation) Act, 1980; (h) The Wildlife (Protection) Act, 1972; (i) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (e) Name of the Court (f) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan****For****Karajghat Sand Ghat, Saoner Taluka, Nagpur District,  
State Maharashtra**

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Karajghat	Saoner	Kanhan	15(part)	3.52	470X75X0.4	4982

**Project Proponent****District Mining Officer, Collector Office, Nagpur****Environment Consultant****Open Arch Design and Enviro Solutions LLP****NABET/EIA/2124/IA0081****[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)****Contact no. :9004778386****December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Karajghat Sand Ghat, Gut No15(part)  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **13. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.52ha on Kanhan River adjoining Gut No.15 (part) village Karajghat, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 4982 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4982 Brass per annum.

### **14. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.



**15. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>7. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>8. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>6. 1.0 KLD water will be used for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>7. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>8. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1 Brass</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.75,000/- Water sprinkling</p> <p>Rs.31500/- Tarpaulin</p> <p>Rs 62000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 62000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>                      In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the river bed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 750/-</p>
<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazardous waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be done in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only.</p>	<p>Rs. 63,650/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			35250sq m area sand from river will be restricted to maximum depth of 0.40 mas per GSDA survey. Mining activity will not done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining will not be done near river banks.	
<p><b><u>Conclusions:</u></b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be use for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 75,000/- water sprinkling
<p><b>Conclusions:</b></p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
	<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,32,850/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
	<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>				
8.	Waste/ Overburden	No waste will be generated from mining of mineral.	No waste/ overburden will be generated from the river	No waste/ overburden will be generated, thus management	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		Overburden or top soil is absent in the proposed river sand project.	sand mining project, thus not any mitigation measure or management plan is adopted.	plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	
<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.					

**16. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	62000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	63650
4.	Occupational Health & safety (Mobile toilet and PPE - Safety Shoes, Earmuffs & Mask etc.)	132850
5.	Tarpaulin	15000
6.	Plantation	31500
7.	Security	10000
<b>Total</b>		<b>3,90,000/-</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY**  
**'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**BASIC INFORMATION**

- i. Name of the Mining Lease site: Karajghat Sand Spot over an extent of 3.52 ha. at Kanhan River Bed, Gut No.15-part, Village Karajghat, Tehsil Saoner, District Nagpur, Maharashtra
- ii. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°26'34.66"N	78°58'12.12"E
BP-2	21°26'37.07"N	78°58'12.39"E
BP-3	21°26'36.48"N	78°58'14.87"E
BP-4	21°26'34.89"N	78°58'17.20"E
BP-5	21°26'31.58"N	78°58'19.36"E
BP-6	21°26'23.76"N	78°58'23.18"E
BP-7	21°26'22.79"N	78°58'21.12"E
BP-8	21°26'30.77"N	78°58'17.07"E
BP-9	21°26'33.46"N	78°58'15.24"E
BP-10	21°26'34.42"N	78°58'13.89"E

- iii. Size of the Mining Lease (Hectare): 3.52
- iv. Capacity of Mining Lease (TPA): 4982 Brass
- v. Period of Mining Lease: 01 years
- vi. Expected cost of the Project: INR 1.24 Crores
- vii. Contact Information: District Mining Officer, Nagpur



**ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road/bridge over the concerned River, Rivulet, Nalla etc.	Nil
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house/Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Saoner railway station at a distance of ~7.67 kms towards South.</li> <li>• NH 47 at a distance of ~2.40km towards South</li> <li>• SH 47 at a distance of ~6.70km towards South</li> <li>• Approach road at distance of 1.01km towards South</li> <li>• NA</li> <li>• Nil</li> <li>• Karajghat village,1.04km, South West</li> <li>• Karajghat village,1.04km, South West</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 47 at a distance of ~6.30km towards East
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Karajghat village,1.04km, South West
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Dr. Bhagat Hospital, Saoner-7.99 km, South West

12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (j) The Forest (Conservation) Act, 1980; (k) The Wildlife (Protection) Act, 1972; (l) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (g) Name of the Court (h) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

**Date:** \_\_/12/2021

# Environment Management Plan

## For

### Esapur Sand Ghat, Saoner Taluka, Nagpur District, State Maharashtra

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Esapur	Saoner	Kanhan	90 (Part), 93,94,115 & 116	3.80	475X80X0.45	6042

### Project Proponent

**District Mining Officer, Collector Office, Nagpur**

### Environment Consultant

**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Esapur A Sand Ghat, Gut No. 90 (Part), 93,94,115 & 116  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **I. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.80ha on Kanhan River, Gut No. 90 (Part), 93,94,115 & 116, village Esapur, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 6042 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 6042 Brass per annum.

### **II. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

**III. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>9. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>10. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road.</p> <p>2. Regularly road leveling and maintenance will be done.</p> <p>3. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>4. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>5. In addition to prevent spillage by tractor trolleys over loading</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.75,000/- Water sprinkling</p> <p>Rs.20000/- Tarpaulin</p> <p>Rs 85000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			should be controlled along with speed limit (1Brass /tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project, the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 85000/- is proposed for baseline data for one time

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			river bed		
<p><b>Conclusions:</b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.</p>					
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 750/-</p>
<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazardous waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand</p>	<p>Rs. 55,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		mined out sand from river.	<p>good condition by using local earth material.</p> <p>Mining activity will be done in 38000sq m area sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only.</p> <p>Monitoring will be done to meet the criteria of parameters as per norms of CPCB/SPCB.</p>	<p>policy 03.09.2019.</p> <p>Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	<p>No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed.</p> <p>Suspended particulates are only source, which has the impact on nearby crops.</p>	<p>3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible.</p> <p>Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after</p>	<p>Water spraying on haul road and time to time maintenance will be done to avoid dust generation.</p> <p>Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for</p>	Rs 75,000/- watersprinkling



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		Pit developed due to mining may be dangerous for animals	loading will be used to prevent.	maintaining ecology and environment of the area.	
<p>Conclusions: Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<p>Conclusion: Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,32,850/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
					Rs 750/- waste bin
<p><b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.</p>					
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	No waste/ overburden will be generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

#### IV. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul road maintenance	55750
4.	Occupational Health & safety (Mobile toilet and PPE - Safety Shoes, Earmuffs & Mask etc.)	133200
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>393950</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY**  
**'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**I. BASIC INFORMATION**

i. Name of the Mining Lease site: Esapur-A Sand Ghat over an extent of 3.80 ha. at Gut No: 90 (Part), 93,94,115 & 116, Village Esapur, Tehsil Soaner, District- Nagpur, Maharashtra

ii. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°20'47.75"N	79°4'26.08"E
BP-2	21°20'50.20"N	79°4'26.67"E
BP-3	21°20'49.62"N	79°4'30.52"E
BP-4	21°20'47.80"N	79°4'33.80"E
BP-5	21°20'44.03"N	79°4'36.43"E
BP-6	21°20'41.50"N	79°4'37.63"E
BP-7	21°20'38.26"N	79°4'38.44"E
BP-8	21°20'37.42"N	79°4'36.01"E
BP-9	21°20'40.88"N	79°4'35.05"E
BP-10	21°20'46.02"N	79°4'32.14"E
BP-11	21°20'47.26"N	79°4'29.88"E

iii. Size of the Mining Lease (Hectare): 3.80

iv. Capacity of Mining Lease (TPA): 6042 Brass

v. Period of Mining Lease: 01 years

- vi. Expected cost of the Project: INR 1.01 Cr.
- vii. Contact Information: District Mining Officer, Nagpur

## II. ENVIRONMENTAL SENSITIVITY

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road/bridge over the concerned River, Rivulet, Nalla etc.	Nil
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house/Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Pipla Halt railway station at a distance of ~3.71 kms towards South.</li> <li>• NH 47 at a distance of ~4.00km towards South</li> <li>• Approach road at distance of 0.37km towards South</li> <li>• NA</li> <li>• Nil</li> <li>• Esapur village,1.21km, South West</li> <li>• Esapur village,1.21km, South West</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 47 at a distance of ~4.00km towards South
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Esapur village,1.21km, South West

11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Patil Multispeciality Hospital, Saoner 15.82km, South West
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (m) The Forest (Conservation) Act, 1980; (n) The Wildlife (Protection) Act, 1972; (o) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (i) Name of the Court (j) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

**Date:** \_\_/12/2021

**Environment Management Plan****For****Rohana Sand Ghat, Saoner Taluka, Nagpur District,  
State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Rohana	Saoner	Kanhan	168, 3(Part) & 7B (Part)	2.10	350X60X0.50	3710

**Project Proponent****District Mining Officer, Collector Office, Nagpur****Environment Consultant****Open Arch Design and Enviro Solutions LLP****NABET/EIA/2124/IA0081****[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)****Contact no. :9004778386****December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Rohana Sand Ghat ,Gut No. 168, 3(Part) & 7B (Part)

**Taluka** : Saoner

**District** : Nagpur (Maharashtra)

### **17. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.10ha on Kanhan River, Gut No. 168, 3(Part) & 7B (Part), village Rohana, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 3710 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 3710 Brass per annum.

### **18. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

**19. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided. PUC certified vehicles will be used for transportation and rununder limited speed. Regular maintenance will be done of vehicles. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass /tractor trolley)</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.25,500/- Water sprinkling</p> <p>Rs.8000/- Tarpaulin</p> <p>Rs 25500/- is proposed for baseline data for one time.</p>



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p><b><u>Conclusion:</u></b> In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>				
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 25500/- is proposed for baseline data for one time
	<p><b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.</p>				

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the river bed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-</p>
<p><b><u>Conclusions:</u></b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be done in 21000 sq m area sand from</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near</p>	<p>Rs. 29,150/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/SPCB.	river banks.	
<p><b><u>Conclusions:</u></b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	1 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 32,850 /- watersprinkling
<p><b>Conclusions:</b></p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,00,000/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs.8000/- Mobile Toilet Rs 350/- waste bin
<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>					
8.	Waste/ Overburden	No waste will be generated from mining of mineral .	No waste/ overburden will be generated from the river	No waste/ overburden will be generated, thus management	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		Overburden or top soil is absent in the proposed river sand project.	sand mining project, thus not any mitigation measure or management plan is adopted.	plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

**20. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	25500
2.	Water Sprinkling	32,850
3.	Unpaved/ Haul Road maintenance	29,150
4.	Occupational Health & safety	1,00,000
5.	Tarpaulin	8000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>220500</b>

**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M  
APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY  
'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**I. BASIC INFORMATION**

- i. Name of the Mining Lease site: Rohana Sand Ghat over an extent of 2.10 ha. at Gut No. 168, 3(Part) & 7B (Part), Village Rohana, Tehsil Soaner, District- Nagpur, Maharashtra.
- ii. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°19'8.20"N	79°7'1.10"E
BP-2	21°19'9.14"N	79°7'2.96"E
BP-3	21°18'59.21"N	79°7'8.85"E
BP-4	21°18'58.35"N	79°7'7.01"E

- (iii) Size of the Mining Lease (Hectare): 2.10
- (iv) Capacity of Mining Lease (TPA): 3710Brass
- (v) Period of Mining Lease: 01 years
- (vi) Expected cost of the Project: INR 0.56 Cr
- (vii) Contact Information: District Mining Officer, Nagpur

**II. ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or roadbridge over the concerned River, Rivulet, Nalla etc.	Nil
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> </ul>	<ul style="list-style-type: none"> <li>• Saoner railway station at a distance of ~7.67 kms towards South.</li> </ul>

	<ul style="list-style-type: none"> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• NH 47 at a distance of ~2.40km towards South</li> <li>• Approach road at distance of 1.01km towards South</li> <li>• NA</li> <li>• Nil</li> <li>• Rohana village, 1.17km, West</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 47 at a distance of ~2.40km towards South
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Rohana village, 1.17km, West
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Tetramere Hospital, Saoner 9.91km, South
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sand mining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	Areas susceptible to natural hazard which could cause the project to present environmental problems	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.



	(Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (p) The Forest (Conservation) Act, 1980; (q) The Wildlife (Protection) Act, 1972; (r) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (k) Name of the Court (l) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan****For****Bawangaon-A Sand Ghat, Saoner Taluka, Nagpur  
District, State Maharashtra**

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Bawangaon-A	Saoner	Kanhan	252&253	1.94	243X80X0.40	2747

**Project Proponent****District Mining Officer, Collector Office, Nagpur****Environment Consultant****Open Arch Design and Enviro Solutions LLP****NABET/EIA/2124/IA0081****[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)****Contact no. :9004778386****December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Bawangaon Sand Ghat ,Gut No. 252 &253

**Taluka** : Saoner

**District** : Nagpur (Maharashtra)

### **21. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 1.94ha on Kanhan River, Gut No. 252&253, village Bawangaon, Tehsil Saoner, District Nagpur (Maharashtra). It has been proposed to collect approximately 2747Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 2747 Brass per annum.

### **22. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

**23. MATRIX FOR EMP**

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<ol style="list-style-type: none"> <li>1. Dust generation due to transportation material by 01 no of tractor trolley per day.</li> <li>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</li> </ol>	<ol style="list-style-type: none"> <li>1. KLD water will be use for regular water spraying of 1.10 km distance of road.</li> <li>2. Regularly road leveling and maintenance will be done.</li> <li>3. Loading material will be covered with tarpaulin and overloading will be avoided.</li> <li>4. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</li> <li>5. In addition to prevent spillage by tractor trolleys over loading</li> </ol>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.32,850/- Water sprinkling</p> <p>Rs.8000/- Tarpaulin</p> <p>Rs 25500/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			should be controlled along with speed limit (1Brass /tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 25500/- is proposed for baseline data for one time

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p><b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.</p>				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the river bed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-</p>
	<p><b><u>Conclusions:</u></b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and waste will not be met to surface water. Advised to workers to use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019.</p>	<p>Rs. 29,150/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			<p>earth material.</p> <p>Mining activity will be done in 19440sq m area. Sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only.</p> <p>Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.</p>	<p>Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	<p>No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed.</p> <p>Suspended particulates are only source, which has the impact on nearby crops.</p> <p>Pit developed due to</p>	<p>1 tractor trip per day will be used for transportation of sand. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.</p>	<p>Water spraying on haul road and time to time maintenance will be done to avoid dust generation.</p> <p>Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and</p>	Rs.32 ,800/-water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		mining may be dangerous for animals.		environment of the area.	
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Positive impact due to proposed mining activity are employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	On site anticipated hazards are health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,00,000/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 5150/- For Temporary shed Rs.90,000/- Mobile Toilet Rs 350/- waste bin
<p><b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.</p>					



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project.	No waste/ overburden will be generated, thus management plan is not applicable. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

**24. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	25500
2.	Water Sprinkling	32,850
3.	Unpaved/ Haul Road maintenance	29,150
4.	Occupational Health & safety	1,00,000
5.	Tarpaulin	8000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>220500</b>

**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M  
APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY  
'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**I. BASIC INFORMATION**

i. Name of the Mining Lease site: Bawangaon A Sand Ghat over an extent of 1.94 ha. at Gut No.252&253, Village Bawangaon , Tehsil Soaner, District- Nagpur, Maharashtra.

ii. Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°26'1.06"N	78°58'40.92"E
BP-2	21°25'59.42"N	78°58'38.60"E
BP-3	21°26'5.43"N	78°58'33.45"E
BP-4	21°26'6.93"N	78°58'35.69"E

iii. Size of the Mining Lease (Hectare): 1.94

iv. Capacity of Mining Lease (TPA): 2747 Brass

v. Period of Mining Lease: 01 years

vi. Expected cost of the Project: INR 0.426 Crores

vii. Contact Information: District Mining Officer, Nagpur

**II. ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or roadbridge over the concerned River, Rivulet, Nalla etc.	Bridge is 2.27km from sand ghat.
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> </ul>	<ul style="list-style-type: none"> <li>• Railway station and Railway line is not present within 5km radius</li> <li>• NH-547 is present at an approx. distance of 5-10 km in west of the sand ghat area</li> <li>• SH 249 at a distance of ~1.42km towards</li> </ul>

	<ul style="list-style-type: none"> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<p>South</p> <ul style="list-style-type: none"> <li>Approach road at distance of 1km towards East</li> <li>NA</li> <li>Nil</li> <li>Nil</li> <li>Bawangaon village,0.5km, North</li> <li>Bawangaon village,0.5km, North</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	<ul style="list-style-type: none"> <li>NH-547 is present at an approx. distance of 5-10 km in west of the sand ghat area</li> </ul>
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	<ul style="list-style-type: none"> <li>Bawangaon village,0.5km, North</li> </ul>
11.	Areas occupied by sensitive man-made land uses(Hospitals, schools, places of worship, community facilities)	Small temple in village Bawangaon at ~483 meter towards North
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sand mining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	Areas susceptible to natural hazard which could cause the project to present environmental problems (Earthquakes, subsidence, landslides,	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.

	erosion, flooding or extreme or adverse climatic conditions)	
15.	Is proposed mining site located over or near fissure / fracture for groundwater recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (s) The Forest (Conservation) Act, 1980; (t) The Wildlife (Protection) Act, 1972; (u) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (m) Name of the Court (n) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

## Environment Management Plan For

### Bawangaon-B Sand Ghat, Saoner Taluka, Nagpur District, State Maharashtra

Name of Sand Ghat	Tehsil	Name of river	Nearest Gut No.	Area in ha	Area in cum LxBxD (m3)	Available Sand in Brass
Bawangaon-B	Saoner	Kanhan	203,204&,208	2.70	450X60X0.60	5724

### Project Proponent

**District Mining Officer, Collector Office, Nagpur**

### Environment Consultant

**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Bawangaon B Sand Quarry (203,204,208)  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.70 Ha on Bawangaon adjoining Ghut. No. 203,204,208, Tehsil: Saoner, District: Nagpur (Maharashtra). It has been proposed to collect approximately 5724 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5724 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at allstages of a project.

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation dueto transportation material by 1 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 0.80 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 52,000/- Water sprinkling</b></p> <p><b>Rs 33000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

**Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.



2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.60 KLD for domestic and 0.80 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,60,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.6 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.6 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on near by crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 52000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,60,000/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs 1,32,750/- Mobile Toilet Rs 750/- waste bin</b>

**Conclusion:**

Suggested to provided First aid and sanitary facility to workers.

**3. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	52000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	185500/-
5.	Tarpaulin	31000/-
6.	Plantation (along haul and River Bank road )	16000/-
7.	Security	8000/-
	<b>Total</b>	<b>3,52,500/-</b>



## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Gosewadi A Sand Quarry (285,286 & 287 (Part))  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.20 Ha on Gosewadi A adjoining Ghut. No. 285,286 & 287 (Part), Tehsil: Saoner, District: Nagpur (Maharashtra). It has been proposed to collect approximately 7420 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 7420 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.40 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 48,000/- Water sprinkling</b></p> <p><b>Rs 31000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.80 KLD for domestic and 1.40 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,40,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.



4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.5 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.5 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 48000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,40,000/-</b> <b>Rs 2500/- for First Aid Box</b> <b>Rs 4000/- Personal Protective Equipment</b> <b>Rs 10000/- For Temporary shed</b> <b>Rs 1,32,750/- Mobile Toilet</b> <b>Rs 750/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	48000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	165500/-
5.	Tarpaulin	31000/-
6.	Plantation (along haul and River Bank road )	16000/-
7.	Security	8000/-
<b>Total</b>		<b>3,28,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																					
S. No.	Item	:	Details																		
1.	Name of the Mining Lease Site	:	Gosewadi A Bed Sand Ghat																		
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Gosewadi village, Tehsil- Saoner, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No.-550/3. <table border="1" style="margin: 10px auto; border-collapse: collapse; width: 80%;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="width: 20%; padding: 5px;">Boundary Point</th> <th style="width: 30%; padding: 5px;">Latitude</th> <th style="width: 30%; padding: 5px;">Longitude</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">21°21'52.95"N</td> <td style="text-align: center;">79°04'41.04"E</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">21°21'50.52"N</td> <td style="text-align: center;">79°04'43.92"E</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">21°21'39.17"N</td> <td style="text-align: center;">79°04'34.80"E</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">21°21'41.82"N</td> <td style="text-align: center;">79°04'32.30"E</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">21°21'46.69"N</td> <td style="text-align: center;">79°04'37.28"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°21'52.95"N	79°04'41.04"E	2	21°21'50.52"N	79°04'43.92"E	3	21°21'39.17"N	79°04'34.80"E	4	21°21'41.82"N	79°04'32.30"E	5	21°21'46.69"N	79°04'37.28"E
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4	21°21'41.82"N	79°04'32.30"E																			
5	21°21'46.69"N	79°04'37.28"E																			
3.	Size of the Mining Lease Area	:	4.20 Hectare																		
4.	Capacity of the Mining Lease	:	7420 Brass/Annum																		
5.	Period of the Mining Lease	:	One year																		
6.	Expected Cost of the Project	:	1.61/- (in crores)																		
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																		
<b>(II) Environmental Sensitivity</b>																					
S. No.	Areas	Name/Identity	Distance in Kilometer/Details																		
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~2.41 Km away towards NW from Project Site.																		
2.	Distance from infrastructural Facilities Railway line	Pipla Halt Railway Station	At a distance of ~ 5.54 Km away towards WSW from Project Site.																		
	National Highway	NH- 47	At a distance of ~ 5.89 Km in SW direction from project site.																		
	State Highway/Highway	SH-249	At a distance of ~ 2.27 Km in NE direction from project site.																		
	Major District Road	-	-																		
	Any Other Road	-	-																		
	Electric transmission line pole or tower	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.																		
	Canal or check dam or reservoirs or lake or ponds	No	-																		

	In-take for drinking water pump house	Gosewadi village	At a distance of ~ 0.57Km 4Km direction from the project site.
	Intake for Irrigation canal pumps	Gosewadi village	At a distance of ~0.57Km Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the studyarea.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	No	-
10.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries,	No	Quarry mine area is falls in river Kanhan.

	tourism, minerals)		
16.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.
17.	Areas occupied by sensitive man- made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																														
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																											
1.	Name of the Mining Lease Site	:	Ghatrohna Bed Sand Ghat																											
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Ghatrohna village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°16'34.01"N</td> <td>79°10'18.25"E</td> </tr> <tr> <td>2</td> <td>21°16'25.41"N</td> <td>79°10'17.72"E</td> </tr> <tr> <td>3</td> <td>21°16'20.59"N</td> <td>79°10'17.66"E</td> </tr> <tr> <td>4</td> <td>21°16'17.07"N</td> <td>79°10'18.22"E</td> </tr> <tr> <td>5</td> <td>21°16'17.47"N</td> <td>79°10'20.20"E</td> </tr> <tr> <td>6</td> <td>21°16'20.83"N</td> <td>79°10'19.73"E</td> </tr> <tr> <td>7</td> <td>21°16'25.44"N</td> <td>79°10'19.80"E</td> </tr> <tr> <td>8</td> <td>21°16'33.85"N</td> <td>79°10'20.24"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°16'34.01"N	79°10'18.25"E	2	21°16'25.41"N	79°10'17.72"E	3	21°16'20.59"N	79°10'17.66"E	4	21°16'17.07"N	79°10'18.22"E	5	21°16'17.47"N	79°10'20.20"E	6	21°16'20.83"N	79°10'19.73"E	7	21°16'25.44"N	79°10'19.80"E	8	21°16'33.85"N	79°10'20.24"E
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8	21°16'33.85"N	79°10'20.24"E																												
3.	Size of the Mining Lease Area	:	3.0 Hectare																											
4.	Capacity of the Mining Lease	:	4240 Brass/Annum																											
5.	Period of the Mining Lease	:	One yea																											
6.	Expected Cost of the Project(In Crores)	:	Rs. ~ 1.06/-																											
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																											

<b>(II) Environmental Sensitivity</b>			
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge near Bina	At a distance of ~ 118 meter away towards SSW from Project Site.
2.	Distance from infrastructural Facilities Railway line	Kamthee Railway Station	At a distance of ~ 7.15 Km away towards SE from Project Site.
	National Highway	NH- 247	At a distance of ~ 3.28 Km in SW direction from project site.
	State Highway/Highway	SH-267	At a distance of ~ 3.79 Km in W direction from project site.
	Major District Road	-	-

	Any Other Road	-	-
	Electric transmission line pole or tower	Ghatrohna village	At a distance of ~ 0.33 direction from the project site.
	Canal or check dam or reservoirs or lake or ponds	Kanhan Mahadev Dam	At a distance of ~ 2.37 direction from the project site.
	In-take for drinking water pump house	Ghatrohna village	At a distance of ~ 0.33 direction from the project site.
	Intake for Irrigation canal pumps	Ghatrohna village	At a distance of ~0.3 3 direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the studyarea.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Pench, there are number of tributes of River Pench is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	Bina Sangam	At a distance of ~0.40 Km towards WS from the Project site.
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~5.30 Km towards WNW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Ghatrohna village	At a distance of ~ 0.33 direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Army Public school, 6.40 km in SE of ML) Hospital:- Primary health centre, Chicholi at 5.79 Km, towards West of ML from quarry area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
13.	Densely populated or built-up area	Ghatrohna village	At a distance of ~ 0.33 direction



	distance from nearest human habitation		from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Army Public school, 6.40 km in SE of ML) Hospital:- Primary health centre, Chicholi at 5.79 Km, towards West of ML from quarry area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
16.	Densely populated or built-up area distance from nearest human habitation	Ghatrohna village	At a distance of ~ 0.33 direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Army Public school, 6.40 km in SE of ML) Hospital:- Primary health centre, Chicholi at 5.79 Km, towards West of ML from quarry area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Ghatrohna Sand Quarry (Ghut. No. 53 (part), 52, 46, 45 (part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.0 Ha on Ghatrohna adjoining Ghut. No. 53 (part), 52, 46, 45 (part), Village: Ghatrohna, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 4240 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4240 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 0.85 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 60,000/- Water sprinkling</b></p> <p><b>Rs 10000/- tarpaulin</b></p> <p><b>Rs 40000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.58 KLD for domestic and 0.85 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste.</p> <p>Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 2,00,000/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be done near the riverbanks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25000/- Road maintenance</b>
<p><b><u>Conclusions:</u></b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 50000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b><u>Conclusions:</u></b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b><u>Conclusion:</u></b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 200000/- Rs 5000/- for First Aid Box Rs 5000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs 1,786,00/- Mobile Toilet Rs 1400/- waste bin</b>
<b><u>Conclusion:</u></b>					
Suggested to provided First aid and sanitary facility to workers.					

#### 4. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	60000/-
3.	Unpaved/ Haul road maintenance	40000/-
4.	Occupational Health & safety	228000/-
5.	Tarpaulin	33000/-
6.	Plantation (along haul and River Bank road )	20100/-
7.	Security	8000/-
	<b>Total</b>	<b>4,19,100/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																																	
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																														
1.	Name of the Mining Lease Site	:	Singardip Bed Sand Ghat																														
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Singardip village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr><td>1</td><td>21°11'41.08"N</td><td>79°17'21.60"E</td></tr> <tr><td>2</td><td>21°11'36.09"N</td><td>79°17'22.70"E</td></tr> <tr><td>3</td><td>21°11'29.14"N</td><td>79°17'6.89"E</td></tr> <tr><td>4</td><td>21°11'33.31"N</td><td>79°17'6.20"E</td></tr> <tr><td>5</td><td>21°11'32.65"N</td><td>79°17'9.92"E</td></tr> <tr><td>6</td><td>21°11'33.49"N</td><td>79°17'13.17"E</td></tr> <tr><td>7</td><td>21°11'35.68"N</td><td>79°17'15.93"E</td></tr> <tr><td>8</td><td>21°11'39.32"N</td><td>79°17'19.39"E</td></tr> <tr><td>9</td><td>21°11'39.00"N</td><td>79°17'20.26"E</td></tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°11'41.08"N	79°17'21.60"E	2	21°11'36.09"N	79°17'22.70"E	3	21°11'29.14"N	79°17'6.89"E	4	21°11'33.31"N	79°17'6.20"E	5	21°11'32.65"N	79°17'9.92"E	6	21°11'33.49"N	79°17'13.17"E	7	21°11'35.68"N	79°17'15.93"E	8	21°11'39.32"N	79°17'19.39"E	9	21°11'39.00"N	79°17'20.26"E
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3.	Size of the Mining Lease Area	:	4.40 Hectare																														
4.	Capacity of the Mining Lease	:	4664 Brass/Annum																														
5.	Period of the Mining Lease	:	One year																														
6.	Expected Cost of the Project	:	0.97/- (in crores)																														
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																														
<b>(II) Environmental Sensitivity</b>																																	
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>																														
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~2.35Km away towards NW from Project Site.																														
2.	Distance from infrastructural Facilities Railway line	Kamthee Railway Station	At a distance of ~ 4.67 Km away towards N from Project Site.																														
	National Highway	NH- 44	At a distance of ~ 1.46 Km in W direction from project site.																														
	State Highway/Highway	SH-266	At a distance of ~ 2.53 Km in N direction from project site.																														
	Major District Road	-	-																														
	Any Other Road	-	-																														



	Electric transmission line pole or tower	Singardip village	At a distance of ~ 0.30Km direction from the project site.
	Canal or check dam or reservoirs or lake or ponds	No	-
	In-take for drinking water pump house	Singardip village	At a distance of ~ 0.30 Km direction from the project site.
	Intake for Irrigation canal pumps	Singardip village	At a distance of ~0.30 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~10.50 Km towards SE from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Singardip village	At a distance of ~ 0.30 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Pandit Jawaharlal Nehru vidyalaya Kanhan, 6.31 km in SE of ML) Hospital:- Primary health centre, Kanhan at 6.48 Km, towards NW of ML from quarry area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Singardip village	At a distance of ~ 0.30 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals,	Yes	School: - Pandit Jawaharlal Nehru vidyalaya Kanhan, 6.31 km in SE of ML)

	schools, places of worship, community facilities)		Hospital:- Primary health centre, Kanhan at 6.48 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
16.	Densely populated or built-up area distance from nearest human habitation	Singardip village	At a distance of ~ 0.30 Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Pandit Jawaharlal Nehru Vidyalaya Kanhan, 6.31 km in SE of ML) Hospital:- Primary health centre, Kanhan at 6.48 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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.

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Singardip Sand Quarry (Ghut. No. 80, 81 and 82)  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **5. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.40 Ha on Singardip adjoining Ghut. No. 80, 81 and 82, Village: Singardip, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 4664 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4664 Brass per annum.

### **6. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

## 7. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>3. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>4. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>3. 0.90 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>4. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 50,000/- Water sprinkling</b></p> <p><b>Rs 30000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	Mining activity will not intersect to ground water. Water requirement of 0.60 KLD for domestic and 0.90 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 1,50,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.30 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.30 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
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**Conclusions:**

Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.

5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 30000/- water sprinkling</b>
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		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,50,000/-</b> <b>Rs 2500/- for First Aid Box</b> <b>Rs 4000/- Personal Protective Equipment</b> <b>Rs 10000/- For Temporary shed</b> <b>Rs 1,32,750/- Mobile Toilet</b> <b>Rs 750/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

## 8. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	50000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	175500/-
5.	Tarpaulin	30000/-
6.	Plantation (along haul and River Bank road )	17000/-
7.	Security	8000/-
<b>Total</b>		<b>3,40,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																								
S. No.	Item	:	Details																					
1.	Name of the Mining Lease Site	:	Palora Bed Sand Ghat																					
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Palora village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8.																					
			<table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°22'42.15"N</td> <td>79°10'19.86"E</td> </tr> <tr> <td>2</td> <td>21°22'37.91"N</td> <td>79°10'19.28"E</td> </tr> <tr> <td>3</td> <td>21°22'34.16"N</td> <td>79°10'18.54"E</td> </tr> <tr> <td>4</td> <td>21°22'33.66"N</td> <td>79°10'21.23"E</td> </tr> <tr> <td>5</td> <td>21°22'37.48"N</td> <td>79°10'22.03"E</td> </tr> <tr> <td>6</td> <td>21°22'41.82"N</td> <td>79°10'22.60"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°22'42.15"N	79°10'19.86"E	2	21°22'37.91"N	79°10'19.28"E	3	21°22'34.16"N	79°10'18.54"E	4	21°22'33.66"N	79°10'21.23"E	5	21°22'37.48"N	79°10'22.03"E	6	21°22'41.82"N	79°10'22.60"E
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2	21°22'37.91"N	79°10'19.28"E																						
3	21°22'34.16"N	79°10'18.54"E																						
4	21°22'33.66"N	79°10'21.23"E																						
5	21°22'37.48"N	79°10'22.03"E																						
6	21°22'41.82"N	79°10'22.60"E																						
3.	Size of the Mining Lease Area	:	2.00 Hectare																					
4.	Capacity of the Mining Lease	:	2826 Brass/Annum																					
5.	Period of the Mining Lease	:	One year																					
6.	Expected Cost of the Project	:	0.44 (In crores)/-																					
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																					
<b>(II) Environmental Sensitivity</b>																								
S. No.	Areas	Name/Identity	Distance in Kilometer/Details																					
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~2.08Km away towards SE from Project Site.																					
2.	Distance from infrastructural Facilities Railway line	Amadi Railway Station	At a distance of ~ 8.27 Km away towards E from Project Site.																					
	National Highway	NH- 44	At a distance of ~ 7.86 Km in E direction from project site.																					
	State Highway/Highway	SH-249	At a distance of ~ 1.00 Km in S direction from project site.																					
	Major District Road	-	-																					
	Any Other Road	-	-																					
	Electric transmission line pole or tower	Palora village	At a distance of ~ 0.80 Km direction from the project site.																					
	Canal or check dam or reservoirs or lake or ponds	No																						

			-
	In-take for drinking water pump house	Palora village	At a distance of ~ 0.80 Km direction from the project site.
	Intake for Irrigation canal pumps	Palora village	At a distance of ~0.80 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Pench and Kanhan, there are number of tributaries of River Pench is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	No	-
10.	Densely populated or built-up area distance from nearest human habitation	Palora village	At a distance of ~ 0.80 km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Collage: - Anand Collage, Bakhari, Maharashtra, 6.31 km in SSE of ML) Hospital:- Primary health centre, Ghat Khairi at 8.80 Km, towards N of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
13.	Densely populated or built-up area distance from nearest human habitation	Palora village	At a distance of ~ 0.80 direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Collage: - Anand Collage, Bakhari, Maharashtra, 6.31 km in SSE of ML) Hospital:- Primary health centre, Ghat Khairi at 8.80 Km, towards N of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

16.	Densely populated or built-up area distance from nearest human habitation	Palora village	At a distance of ~ 0.80 direction from the project site.
17.	Areas occupied by sensitive man- made land uses (hospitals, schools, places of worship, community facilities)	Yes	Collage: - Anand Collage, Bakhari, Maharashtra, 6.31 km in SSE of ML) Hospital:- Primary health centre, Ghat Khairi at 8.80 Km, towards N of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Palora Sand Quarry (Ghut. No. 43 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **9. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.00 Ha on Palora adjoining Ghut. No. 43 (Part), Village: Palora, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 2826 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 2826. The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

## 10. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>5. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>6. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>5. 0.55 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>6. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 35,000/- Water sprinkling</b></p> <p><b>Rs 15000/- tarpaulin</b></p> <p><b>Rs 25000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.40 KLD for domestic and 0.55 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,00,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 20750/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 45000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,13,000/-</b> <b>Rs 1250/- for First Aid Box</b> <b>Rs 3000/- Personal Protective Equipment</b> <b>Rs 8000/- For Temporary shed</b> <b>Rs 1,00,000/- Mobile Toilet</b> <b>Rs 750/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					



## 11. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	45000/-
3.	Unpaved/ Haul road maintenance	35000/-
4.	Occupational Health & safety	1,13,000/-
5.	Tarpaulin	15000/-
6.	Plantation (along haul and River Bank road )	17100/-
7.	Security	8000/-
<b>Total</b>		<b>2,63,100/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
S. No.	Item	:	Details															
1.	Name of the Mining Lease Site	:	Pimpla Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Pimpla village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°19'50.33"N</td> <td>79°11'8.88"E</td> </tr> <tr> <td>2</td> <td>21°19'48.11"N</td> <td>79°11'10.89"E</td> </tr> <tr> <td>3</td> <td>21°19'43.27"N</td> <td>79°11'5.52"E</td> </tr> <tr> <td>4</td> <td>21°19'45.50"N</td> <td>79°11'3.50"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°19'50.33"N	79°11'8.88"E	2	21°19'48.11"N	79°11'10.89"E	3	21°19'43.27"N	79°11'5.52"E	4	21°19'45.50"N	79°11'3.50"E
Boundary Point	Latitude	Longitude																
1	21°19'50.33"N	79°11'8.88"E																
2	21°19'48.11"N	79°11'10.89"E																
3	21°19'43.27"N	79°11'5.52"E																
4	21°19'45.50"N	79°11'3.50"E																
3.	Size of the Mining Lease Area	:	1.93 Hectare															
4.	Capacity of the Mining Lease	:	2734 Brass/Annum															
5.	Period of the Mining Lease	:	One Year															
6.	Expected Cost of the Project	:	0.43 (In crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
S. No.	Areas	Name/Identity	Distance in Kilometer/Details															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~1.35Km away towards SSW from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Khaperkhed Railway Station	At a distance of ~ 9.27 Km away towards E from Project Site.															
	National Highway	NH- 44	At a distance of ~ 3.96 Km in E direction from project site.															
	State Highway/Highway	SH-249	At a distance of ~ 3.80 Km in N direction from project site.															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Pimpla village	At a distance of ~ 0.55 direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
In-take for drinking water pump house	Pimpla village	At a distance of ~ 0.55 direction from the project site.																

	Intake for Irrigation canal pumps	Pimpla village	At a distance of ~0.55 direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Pench and Kanhan, there are number of tributaries of River Pench is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	No	-
10.	Densely populated or built-up area distance from nearest human habitation	Pimpla village	At a distance of ~ 0.55 direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Collage: - Anand Collage, Bakhari, Maharashtra, 1.60 km in SE of ML) Hospital:- Primary health centre, Sataki at 8.14 Km, towards E of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
13.	Densely populated or built-up area distance from nearest human habitation	Pimpla village	At a distance of ~ 0.55 direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Collage: - Anand Collage, Bakhari, Maharashtra, 1.60 km in SE of ML) Hospital:- Primary health centre, Sataki at 8.14 Km, towards E of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
16.	Densely populated or built-up area distance from nearest human habitation	Pimpla village	At a distance of ~ 0.55 direction from the project site.
17.	Areas occupied by sensitive man-		Collage: - Anand Collage, Bakhari, Maharashtra,

	made land uses (hospitals, schools, places of worship, community facilities)	Yes	1.60 km in SE of ML) Hospital:- Primary health centre, Sataki at 8.14 Km, towards E of ML from quarry area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Pimla Sand Quarry (Ghut. No. 353 (Part), 354 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **12. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 1.93 Ha on Pimla adjoining Ghut. No. 353 (Part), 354 (Part), Village: Pimla, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 2734 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 2734 Brass per annum.

### **13. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

#### 14. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>7. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>8. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>7. 0.8 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>8. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 25,000/- Water sprinkling</b></p> <p><b>Rs 20000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 0.80 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 1,00,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.50 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25750/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	2 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 25000/- water sprinkling</b>



		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,13,000/-</b> <b>Rs 1250/- for First Aid Box</b> <b>Rs 3000/- Personal Protective Equipment</b> <b>Rs 8000/- For Temporary shed</b> <b>Rs 1,00,000/- Mobile Toilet</b> <b>Rs 750/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					

## 15. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	25000/-
3.	Unpaved/ Haul road maintenance	20000/-
4.	Occupational Health & safety	113000/-
5.	Tarpaulin	15000/-
6.	Plantation (along haul and River Bank road )	7500/-
7.	Security	8000/-
<b>Total</b>		<b>2,18,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																														
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																											
1.	Name of the Mining Lease Site	:	Sihora Bed Sand Ghat																											
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Sihora village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°11'57.15"N</td> <td>79° 15'14.42"E</td> </tr> <tr> <td>2</td> <td>21°11'57.20"N</td> <td>79° 15'09.99"E</td> </tr> <tr> <td>3</td> <td>21°11'56.72"N</td> <td>79° 15'06.68"E</td> </tr> <tr> <td>4</td> <td>21°11'57.67"N</td> <td>79° 15'03.95"E</td> </tr> <tr> <td>5</td> <td>21°11'57.62"N</td> <td>79° 15'01.19"E</td> </tr> <tr> <td>6</td> <td>21°11'58.75"N</td> <td>79° 14'58.19"E</td> </tr> <tr> <td>7</td> <td>21°11'54.89"N</td> <td>79° 15'58.29"E</td> </tr> <tr> <td>8</td> <td>21°11'53.67"N</td> <td>79° 15'13.87"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°11'57.15"N	79° 15'14.42"E	2	21°11'57.20"N	79° 15'09.99"E	3	21°11'56.72"N	79° 15'06.68"E	4	21°11'57.67"N	79° 15'03.95"E	5	21°11'57.62"N	79° 15'01.19"E	6	21°11'58.75"N	79° 14'58.19"E	7	21°11'54.89"N	79° 15'58.29"E	8	21°11'53.67"N	79° 15'13.87"E
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7	21°11'54.89"N	79° 15'58.29"E																												
8	21°11'53.67"N	79° 15'13.87"E																												
3.	Size of the Mining Lease Area	:	4.50 Hectare																											
4.	Capacity of the Mining Lease	:	4770 Brass/Annum																											
5.	Period of the Mining Lease	:	One year																											
6.	Expected Cost of the Project	:	0.99/- (in crores)																											
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																											
<b>(II) Environmental Sensitivity</b>																														
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>																											
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~1.43Km away towards NE from Project Site.																											
2.	Distance from infrastructural Facilities Railway line	Kanhan Railway Station	At a distance of ~ 3.00 Km away towards NW from Project Site.																											
	National Highway	NH- 247	At a distance of ~ 1.13 Km in SW direction from project site.																											
	State Highway/Highway	SH-266	At a distance of ~ 2.55 Km in N direction from project site.																											
	Major District Road	-	-																											
	Any Other Road	-	-																											
	Electric transmission line pole or tower	Sihora village	At a distance of ~ 1.0Km direction from the project site.																											

	Canal or check dam or reservoirs or lake or ponds	No	-
	In-take for drinking water pump house	Sihora village	At a distance of ~ 1.00 Km direction from the project site.
	Intake for Irrigation canal pumps	Sihora village	At a distance of ~1.00 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~6.90 Km towards NW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Sihora village	At a distance of ~ 1.00 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Pandit jawaharlal nehru vidyalaya kanhan, 3.18 km in SE of ML) Hospital:- Primary health centre, Kanhan at 3.40 Km, towards NW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Sihora village	At a distance of ~ 1.00 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Pandit jawaharlal nehru vidyalaya kanhan, 3.18 km in SE of ML) Hospital:- Primary health centre, Kanhan at 3.40 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground		Quarry mine area is falls in river Kanhan.

	water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	
16.	Densely populated or built-up area distance from nearest human habitation	Sihora village	At a distance of ~ 1.00 Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Pandit jawaharlal nehru vidyalaya kanhan, 3.18 km in SE of ML) Hospital:- Primary health centre, Kanhan at 3.40 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Sihora Sand Quarry (Ghut. No. 170/1,170/2 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **16. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.50 Ha on Sihora adjoining Ghut. No. 170/1,170/2 (Part), Village: Sihora, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 4770 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 4770 Brass per annum.

### **17. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

## 18. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>9. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>10. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>9. 0.90 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>10. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 51,000/- Water sprinkling</b></p> <p><b>Rs 33000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.60 KLD for domestic and 0.90 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 1,50,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.



4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.30 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.30 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 30000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,50,000/-</b> <b>Rs 2500/- for First Aid Box</b> <b>Rs 4000/- Personal Protective Equipment</b> <b>Rs 10000/- For Temporary shed</b> <b>Rs 1,32,750/- Mobile Toilet</b> <b>Rs 750/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

## 19. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	51000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	175500/-
5.	Tarpaulin	33000/-
6.	Plantation (along haul and River Bank road )	17000/-
7.	Security	8000/-
<b>Total</b>		<b>3,44,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Waghoda Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Waghoda village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°17'58.58"N</td> <td>79°11'57.37"E</td> </tr> <tr> <td>2</td> <td>21°18'6.35"N</td> <td>79°12'4.06"E</td> </tr> <tr> <td>3</td> <td>21°18' 2.31"N</td> <td>79°12'6.94"E</td> </tr> <tr> <td>4</td> <td>21°17'55.65"N</td> <td>79°12'0.13"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°17'58.58"N	79°11'57.37"E	2	21°18'6.35"N	79°12'4.06"E	3	21°18' 2.31"N	79°12'6.94"E	4	21°17'55.65"N	79°12'0.13"E
Boundary Point	Latitude	Longitude																
1	21°17'58.58"N	79°11'57.37"E																
2	21°18'6.35"N	79°12'4.06"E																
3	21°18' 2.31"N	79°12'6.94"E																
4	21°17'55.65"N	79°12'0.13"E																
3.	Size of the Mining Lease Area	:	4.00 Hectare															
4.	Capacity of the Mining Lease	:	12746 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	1.74/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Pench River Bridge	At a distance of ~2.50Km away towards NW from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Khaparkheda Railway Station	At a distance of ~ 4.67 Km away towards SW from Project Site.															
	National Highway	NH- 44	At a distance of ~ 3.00 Km in E direction from project site.															
	State Highway/Highway	SH-267	At a distance of ~ 6.00 Km in W direction from project site.															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Waghoda village	At a distance of ~ 2.00 Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
	In-take for drinking water pump house	Waghoda village	At a distance of ~ 2.00 Km direction from the project site.															

	Intake for Irrigation canal pumps	Waghoda village	At a distance of ~2.00 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River PENCH, there are number of tributes of River PENCH is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~8.00 Km towards SSW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Waghoda village	At a distance of ~ 2.00 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.81 km in NW of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river PENCH.
13.	Densely populated or built-up area distance from nearest human habitation	Waghoda village	At a distance of ~ 2.00 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.81 km in NW of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river PENCH.
16.	Densely populated or built-up area	Waghoda village	At a distance of ~ 2.00 Km

	distance from nearest human habitation		direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.81 km in NW of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Waghoda Sand Quarry (127/1 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **20. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.00 Ha on Waghoda adjoining Ghut. No. 127/1 (Part), Village: Waghoda, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 12746 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 12746 Brass per annum.

### **21. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

## 22. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>11. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>12. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>11. 1.20 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>12. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 80,000/- Water sprinkling</b></p> <p><b>Rs 57000/- tarpaulin</b></p> <p><b>Rs 45000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.



2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.90 KLD for domestic and 1.20 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 400,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.90 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.90 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 30750/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 80000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 448500/-</b> <b>Rs 4500/- for First Aid Box</b> <b>Rs 8600/- Personal Protective Equipment</b> <b>Rs 33000/- For Temporary shed</b> <b>Rs 400,000/- Mobile Toilet</b> <b>Rs 2400/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

### 23. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	40,000/-
2.	Water Sprinkling	80,000/-
3.	Unpaved/ Haul road maintenance	40,000/-
4.	Occupational Health & safety	4,48,500/-
5.	Tarpaulin	57,000/-
6.	Plantation (along haul and River Bank road )	16,700/-
7.	Security	8,000/-
<b>Total</b>		<b>6,90,200/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Yesamba Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Yesamba village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°17'47.62"N</td> <td>79°11'39.17"E</td> </tr> <tr> <td>2</td> <td>21°17'49.63"N</td> <td>79°11'37.71"E</td> </tr> <tr> <td>3</td> <td>21°17'53.47"N</td> <td>79°11'43.72"E</td> </tr> <tr> <td>4</td> <td>21°17'51.45"N</td> <td>79°11'45.17"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°17'47.62"N	79°11'39.17"E	2	21°17'49.63"N	79°11'37.71"E	3	21°17'53.47"N	79°11'43.72"E	4	21°17'51.45"N	79°11'45.17"E
Boundary Point	Latitude	Longitude																
1	21°17'47.62"N	79°11'39.17"E																
2	21°17'49.63"N	79°11'37.71"E																
3	21°17'53.47"N	79°11'43.72"E																
4	21°17'51.45"N	79°11'45.17"E																
3.	Size of the Mining Lease Area	:	1.57 Hectare															
4.	Capacity of the Mining Lease	:	5008 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	1.38/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Pench River Bridge	At a distance of ~2.33Km away towards NW from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Khaparkheda Railway Station	At a distance of ~ 8.44 Km away towards SW from Project Site.															
	National Highway	NH- 44	At a distance of ~ 3.79 Km in E direction from project site.															
	State Highway/Highway	SH-267	At a distance of ~ 5.55 Km in W direction from project site.															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Yesamba village	At a distance of ~ 0.90 Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
	In-take for drinking water pump house	Yesamba village	At a distance of ~ 0.90 Km direction from the project site.															

	Intake for Irrigation canal pumps	Yesamba village	At a distance of ~0.90 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River PENCH, there are number of tributes of River PENCH is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~7.79 Km towards SSW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Yesamba village	At a distance of ~ 0.90 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 2.00 km in N of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river PENCH.
13.	Densely populated or built-up area distance from nearest human habitation	Yesamba village	At a distance of ~ 0.90 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 2.00 km in N of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river PENCH.
16.	Densely populated or built-up area	Yesamba village	At a distance of ~ 0.90 Km

	distance from nearest human habitation		direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 2.00 km in N of ML) Hospital:- Primary health centre, Khamthi at 7.00 Km, towards SE of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Yesamba Sand Quarry (207 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **24. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 1.57 Ha on Yesamba adjoining Ghut. No. 207 (Part), Village: Yesamba, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 5008 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5008 Brass per annum.

### **25. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.



## 26. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>13. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>14. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>13. 0.8 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>14. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 90,000/- Water sprinkling</b></p> <p><b>Rs 45000/- tarpaulin</b></p> <p><b>Rs 35000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.50 KLD for domestic and 0.8 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 3,00,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.90 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.90 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 30750/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 30000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 3,38,000/- Rs 7500/- for First Aid Box Rs 9000/- Personal Protective Equipment Rs 19400/- For Temporary shed Rs 3,00,000/- Mobile Toilet Rs 2100/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					

## 27. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30,000/-
2.	Water Sprinkling	90,000/-
3.	Unpaved/ Haul road maintenance	50,000/-
4.	Occupational Health & safety	3,38,000/-
5.	Tarpaulin	45,000/-
6.	Plantation (along haul and River Bank road )	20,900/-
7.	Security	10,000/-
<b>Total</b>		<b>5,83,900/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																								
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																					
1.	Name of the Mining Lease Site	:	Garanda Bed Sand Ghat																					
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Garanda village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3 & 550/8. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°18'34.92"N</td> <td>79°11'27.13"E</td> </tr> <tr> <td>2</td> <td>21°18'36.72"N</td> <td>79°11'29.08"E</td> </tr> <tr> <td>3</td> <td>21°18'31.13"N</td> <td>79°11'34.85"E</td> </tr> <tr> <td>4</td> <td>21°18'27.90"N</td> <td>79°11'39.40"E</td> </tr> <tr> <td>5</td> <td>21°18'26.19"N</td> <td>79°11'37.32"E</td> </tr> <tr> <td>6</td> <td>21°18'29.25"N</td> <td>79°11'32.95"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°18'34.92"N	79°11'27.13"E	2	21°18'36.72"N	79°11'29.08"E	3	21°18'31.13"N	79°11'34.85"E	4	21°18'27.90"N	79°11'39.40"E	5	21°18'26.19"N	79°11'37.32"E	6	21°18'29.25"N	79°11'32.95"E
Boundary Point	Latitude	Longitude																						
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4	21°18'27.90"N	79°11'39.40"E																						
5	21°18'26.19"N	79°11'37.32"E																						
6	21°18'29.25"N	79°11'32.95"E																						
3.	Size of the Mining Lease Area	:	3.20 Hectare																					
4.	Capacity of the Mining Lease	:	7915 Brass/Annum																					
5.	Period of the Mining Lease	:	One year																					
6.	Expected Cost of the Project	:	2.11/- (in crores)																					
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																					
<b>(II) Environmental Sensitivity</b>																								
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>																					
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Pench River Bridge	At a distance of ~ 1.23Km away towards SW from Project Site.																					
2.	Distance from infrastructural Facilities Railway line	Khaparkheda Railway Station	At a distance of ~ 9.17 Km away towards SW from Project Site.																					
	National Highway	NH- 44	At a distance of ~ 3.96 Km in E direction from project site.																					
	State Highway/Highway	SH-267	At a distance of ~ 5.16 Km in W direction from project site.																					
	Major District Road	-	-																					
	Any Other Road	-	-																					
	Electric transmission line pole or tower	Garanda village	At a distance of ~ 0.67 Km direction from the project site.																					
	Canal or check dam or reservoirs or lake or ponds	No	-																					

	In-take for drinking water pump house	Garanda village	At a distance of ~ 0.67 Km direction from the project site.
	Intake for Irrigation canal pumps	Garanda village	At a distance of ~0.67 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Pench, there are number of tributes of River Pench is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~9.00 Km towards S from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Garanda village	At a distance of ~ 0.67 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.70 km in SE of ML) Hospital:- Primary health centre, Khamthi at 11.00 Km, towards SE of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.
13.	Densely populated or built-up area distance from nearest human habitation	Garanda village	At a distance of ~ 0.67 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.70 km in SE of ML) Hospital:- Primary health centre, Khamthi at 11.00 Km, towards SE of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries,	No	Quarry mine area is falls in river Pench.

	tourism, minerals)		
16.	Densely populated or built-up area distance from nearest human habitation	Garanda village	At a distance of ~ 0.67 Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Anand Collage Bhakari, 1.70 km in SE of ML) Hospital:- Primary health centre, Khamthi at 11.00 Km, towards SE of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Pench.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Garanda Sand Quarry (Ghut. No. 104 (Part))  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **28. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.20 Ha on Garanda adjoining Ghut. No. 104 (Part), Village: Garanda, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 7915 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 7915 Brass per annum.

### **29. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

### 30. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>15. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>16. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>15. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>16. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 90,000/- Water sprinkling</b></p> <p><b>Rs 70000/- tarpaulin</b></p> <p><b>Rs 35000/-</b> is proposed for baseline data for one time.</p>

**Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle’s engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 45000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work. <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.60 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 4,00,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.70 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.70 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 30750/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 30000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 4,00,000/- Rs 5500/- for First Aid Box Rs 15000/- Personal Protective Equipment Rs 35000/- For Temporary shed Rs 1,20,000/- Mobile Toilet Rs 3000/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					

### 31. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	40,000/-
2.	Water Sprinkling	90,000/-
3.	Unpaved/ Haul road maintenance	70,000/-
4.	Occupational Health & safety	4,58,500/-
5.	Tarpaulin	69,000/-
6.	Plantation (along haul and River Bank road )	15,200/-
7.	Security	15,000/-
<b>Total</b>		<b>7,57,700/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Saholi-A Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Saholi-A village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3. <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°17'03.79"N</td> <td>79°07'25.49"E</td> </tr> <tr> <td>2</td> <td>21°16'48.69"N</td> <td>79°07'32.02"E</td> </tr> <tr> <td>3</td> <td>21°16'48.16"N</td> <td>79°07'30.39"E</td> </tr> <tr> <td>4</td> <td>21°17'03.23"N</td> <td>79°07'23.88"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°17'03.79"N	79°07'25.49"E	2	21°16'48.69"N	79°07'32.02"E	3	21°16'48.16"N	79°07'30.39"E	4	21°17'03.23"N	79°07'23.88"E
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1	21°17'03.79"N	79°07'25.49"E																
2	21°16'48.69"N	79°07'32.02"E																
3	21°16'48.16"N	79°07'30.39"E																
4	21°17'03.23"N	79°07'23.88"E																
3.	Size of the Mining Lease Area	:	2.5 Hectare															
4.	Capacity of the Mining Lease	:	7067 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	1.44/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~0.79Km away towards ESE from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Khapri Kheda Railway Station	At a distance of ~ 1.40 Km away towards SW from Project Site.															
	National Highway	NH- 247	At a distance of ~ 1.07 Km in SW direction from project site.															
	State Highway/Highway	SH-267	At a distance of ~ 0.79Km in ESE direction from project site.															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Saholi-A village	At a distance of ~ 0.94Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
In-take for drinking water pump house	Saholi-A village	At a distance of ~ 0.94Km direction from the project site.																

	Intake for Irrigation canal pumps	Saholi-A village	At a distance of ~ 0.94Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~8.92 Km towards SE from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Saholi-A village	At a distance of ~ 0.94Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.28 km in SW of ML) Hospital:- Primary Health Centre, Chicholi (Khaparkheda) at 1.84 Km, towards SW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Saholi-A village	At a distance of ~ 0.30 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.28 km in SW of ML) Hospital:- Primary Health Centre, Chicholi (Khaparkheda) at 1.84 Km, towards SW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground		Quarry mine area is falls in river Kanhan.



	water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	
16.	Densely populated or built-up area distance from nearest human habitation	Saholi-A village	At a distance of ~ 0.94Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.28 km in SW of ML) Hospital:- Primary Health Centre, Chicholi (Khaparkheda) at 1.84 Km, towards SW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Saholi-A Sand Quarry (Ghut. No. 15, 16, 17, 18 & 19 (Part),)  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **32. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.5Ha on Saholi-A adjoining Ghut. No. 15, 16, 17, 18 & 19 (Part), Village: Saholi-A, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 7067 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 7067 Brass per annum.

### **33. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

### 34. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>17. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>18. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>17. 1.00 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>18. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 45,000/- Water sprinkling</b></p> <p><b>Rs 30000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.70 KLD for domestic and 1.00 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 1,50,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.30 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.50 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 45000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,75,000/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs 1,57,750/- Mobile Toilet Rs 750/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

### 35. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	45000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	175000/-
5.	Tarpaulin	30000/-
6.	Plantation (along haul and River Bank road )	17000/-
7.	Security	8000/-
<b>Total</b>		<b>3,35,000/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																														
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																											
1.	Name of the Mining Lease Site	:	Saholi-B Bed Sand Ghat																											
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Saholi-B village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3. <table border="1"> <thead> <tr> <th><b>Boundary Point</b></th> <th><b>Latitude</b></th> <th><b>Longitude</b></th> </tr> </thead> <tbody> <tr> <td align="center"><b>1</b></td> <td align="center">21°16'22.16"N</td> <td align="center">79°08'24.62"E</td> </tr> <tr> <td align="center"><b>2</b></td> <td align="center">21°16'22.95"N</td> <td align="center">79°08'32.91"E</td> </tr> <tr> <td align="center"><b>3</b></td> <td align="center">21°16'24.30"N</td> <td align="center">79°08'38.98"E</td> </tr> <tr> <td align="center"><b>4</b></td> <td align="center">21°16'27.74"N</td> <td align="center">79°08'44.31"E</td> </tr> <tr> <td align="center"><b>5</b></td> <td align="center">21°16'26.01"N</td> <td align="center">79°08'44.96"E</td> </tr> <tr> <td align="center"><b>6</b></td> <td align="center">21°16'22.45"N</td> <td align="center">79°08'39.85"E</td> </tr> <tr> <td align="center"><b>7</b></td> <td align="center">21°16'21.03"N</td> <td align="center">79°08'33.07"E</td> </tr> <tr> <td align="center"><b>8</b></td> <td align="center">21°16'20.43"N</td> <td align="center">79°08'24.77"E</td> </tr> </tbody> </table>	<b>Boundary Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>1</b>	21°16'22.16"N	79°08'24.62"E	<b>2</b>	21°16'22.95"N	79°08'32.91"E	<b>3</b>	21°16'24.30"N	79°08'38.98"E	<b>4</b>	21°16'27.74"N	79°08'44.31"E	<b>5</b>	21°16'26.01"N	79°08'44.96"E	<b>6</b>	21°16'22.45"N	79°08'39.85"E	<b>7</b>	21°16'21.03"N	79°08'33.07"E	<b>8</b>	21°16'20.43"N	79°08'24.77"E
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3.	Size of the Mining Lease Area	:	3.6 Hectare																											
4.	Capacity of the Mining Lease	:	12720 Brass/Annum																											
5.	Period of the Mining Lease	:	One year																											
6.	Expected Cost of the Project	:	2.60/- (in crores)																											
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																											
<b>(II) Environmental Sensitivity</b>																														
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>																											
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~0.92 Km away towards NW from Project Site.																											
2.	Distance from infrastructural Facilities Railway line	Khapri Kheda Railway Station	At a distance of ~ 2.27 Km away towards WSW from Project Site.																											
	National Highway	NH- 247	At a distance of ~ 1.29 Km in SW direction from project site.																											
	State Highway/Highway	SH-267	At a distance of ~ 0.92 Km in NW direction from project site.																											
	Major District Road	-	-																											
	Any Other Road	-	-																											
	Electric transmission line pole or tower	Saholi-B village	At a distance of ~ 0.64Km direction from the project site.																											



	Canal or check dam or reservoirs or lake or ponds	No	-
	In-take for drinking water pump house	Saholi-B village	At a distance of ~ 0.64Km direction from the project site.
	Intake for Irrigation canal pumps	Saholi-B village	At a distance of ~0.64Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~6.96 Km towards SE from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Saholi-B village	At a distance of ~ 0.64Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.98 km in WSW of ML) Hospital:- Primary Health Centre, Chicholi (Khaparkheda) at 2.69 Km, towards NW of ML from quarry area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Saholi-B village	At a distance of ~ 0.64Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.98 km in WSW of ML) Hospital:- Primary Health Centre, Chicholi

			(Khaparkheda) at 2.69 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
16.	Densely populated or built-up area distance from nearest human habitation	Saholi-B village	At a distance of ~ 0.64Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 1.98 km in WSW of ML) Hospital:- Primary Health Centre, Chicholi (Khaparkheda) at 2.69 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Saholi B Sand Quarry (115/2, 112/2, 136/2, 141/2,)  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **36. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.6 Ha on Saholi B adjoining Ghut. No. 115/2, 112/2, 136/2, 141/2, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 12720 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 12720 Brass per annum.

### **37. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

### 38. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>19. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>20. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>19. 1.50 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>20. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 90,000/- Water sprinkling</b></p> <p><b>Rs 45000/- tarpaulin</b></p> <p><b>Rs 35000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.80 KLD for domestic and 1.50 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 3,30,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 1.0 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 1.0 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 35500/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 30000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 3,68,000/-</b> <b>Rs 7500/- for First Aid Box</b> <b>Rs 9000/- Personal Protective Equipment</b> <b>Rs 19400/- For Temporary shed</b> <b>Rs 3,30,000/- Mobile Toilet</b> <b>Rs 2100/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

### 39. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30,000/-
2.	Water Sprinkling	90,000/-
3.	Unpaved/ Haul road maintenance	50,000/-
4.	Occupational Health & safety	3,68,000/-
5.	Tarpaulin	45,000/-
6.	Plantation (along haul and River Bank road )	20,900/-
7.	Security	10,000/-
<b>Total</b>		<b>6,13,900/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Paradi K Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Paradi K village, Tehsil- Parseoni, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°19'30.05"N</td> <td>79°05'26.52"E</td> </tr> <tr> <td>2</td> <td>21°19'19.42"N</td> <td>79°05'37.31"E</td> </tr> <tr> <td>3</td> <td>21°19'17.25"N</td> <td>79°05'34.79"E</td> </tr> <tr> <td>4</td> <td>21°19'27.99"N</td> <td>79°05'23.97"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°19'30.05"N	79°05'26.52"E	2	21°19'19.42"N	79°05'37.31"E	3	21°19'17.25"N	79°05'34.79"E	4	21°19'27.99"N	79°05'23.97"E
Boundary Point	Latitude	Longitude																
1	21°19'30.05"N	79°05'26.52"E																
2	21°19'19.42"N	79°05'37.31"E																
3	21°19'17.25"N	79°05'34.79"E																
4	21°19'27.99"N	79°05'23.97"E																
3.	Size of the Mining Lease Area	:	4.50 Hectare															
4.	Capacity of the Mining Lease	:	12720 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	2.60/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~1.6 Km away towards E from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Pipla Halt Railway Station	At a distance of ~ 2.55 Km away towards SW from Project Site.															
	National Highway	NH- 47	At a distance of ~ 2.82 Km in SW direction from project site.															
	State Highway/Highway	SH-267	At a distance of ~ 4.43 Km in E direction from project site.															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Paradi K village	At a distance of ~ 0.38 Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
In-take for drinking water pump house	Paradi K village	At a distance of ~ 0.38 Km direction from the project site.																

	Intake for Irrigation canal pumps	Paradi K village	At a distance of ~0.38 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~14.52 Km towards SE from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Paradi K village	At a distance of ~ 0.38 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 3.55 km in S of ML) Hospital:- Primary Health Centre, Dahegaon at 4.70 Km, towards NW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Paradi K village	At a distance of ~ 0.38 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 3.55 km in S of ML) Hospital:- Primary Health Centre, Dahegaon at 4.70 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground		Quarry mine area is falls in river Kanhan.

	water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	
16.	Densely populated or built-up area distance from nearest human habitation	Paradi K village	At a distance of ~ 0.38 Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Shankarrao Chavhan School And Collage – School, Khaperkheda, 3.55 km in S of ML) Hospital:- Primary Health Centre, Dahegaon at 4.70 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Paradi K Sand Quarry (153)  
**Taluka** : Parseoni  
**District** : Nagpur (Maharashtra)

### **40. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.50 Ha on Paradi K adjoining Ghut. No. 153, Tehsil: Parseoni, District: Nagpur (Maharashtra). It has been proposed to collect approximately 12720 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 12720 Brass per annum.

### **41. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

## 42. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>21. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>22. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>21. 1.50 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>22. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 85,000/- Water sprinkling</b></p> <p><b>Rs 45000/- tarpaulin</b></p> <p><b>Rs 35000/-</b> is proposed for baseline data for one time.</p>

### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.80 KLD for domestic and 1.50 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 3,30,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.8 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.8 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 35500/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 85000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 3,58,000/-</b> <b>Rs 7500/- for First Aid Box</b> <b>Rs 9000/- Personal Protective Equipment</b> <b>Rs 19400/- For Temporary shed</b> <b>Rs 3,20,000/- Mobile Toilet</b> <b>Rs 2100/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					



### 43. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30,000/-
2.	Water Sprinkling	85,000/-
3.	Unpaved/ Haul road maintenance	50,000/-
4.	Occupational Health & safety	3,58,000/-
5.	Tarpaulin	45,000/-
6.	Plantation (along haul and River Bank road )	20,100/-
7.	Security	10,000/-
<b>Total</b>		<b>5,98,100/-</b>

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## APPENDIX VIII

### FORM 1M

#### Application for Mining of Minor Minerals under Category 'B2' for less than and Equal to Five Hectare

#### (I) BASIC INFORMATION

(i) Name of the Mining Lease site: Juni Kamptee(Gadeghat)-B Sand Ghat over an extent of 2.00 ha. at Gut No. 230 & 241/2, Village Juni Kamptee (Gadeghat), Tehsil Parshivni, District-Nagpur, Maharashtra.

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°13'45.61"N	79°12'26.32"E
BP-2	21°13'43.54"N	79°12'26.38"E
BP-3	21°13'43.93"N	79°12'15.77"E
BP-4	21°13'46.08"N	79°12'15.92"E

(iii) Size of the Mining Lease (Hectare): 2.00

(iv) Capacity of Mining Lease (TPA): 5653Brass

(v) Period of Mining Lease: 01 years

(vi) Expected cost of the Project: INR 0.56 Cr

(vii) Contact Information: District Mining Officer, Nagpur

#### (II) ENVIRONMENTAL SENSITIVITY

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	<ul style="list-style-type: none"><li>• Kanhan river new bridge 2.30km, South</li><li>• Kamptee Kanhan road bridge, 2.44km, South</li><li>• Kanhan Rail bridge, 2.47km, South</li></ul>
2.	Distance from infrastructural facilities	<ul style="list-style-type: none"><li>• Kanhan railway station at a distance of ~3.14</li></ul>

	<ul style="list-style-type: none"> <li>Railway line</li> <li>National Highway</li> <li>State Highway</li> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house</li> <li>Intake for Irrigation canal pumps</li> </ul>	<p>kms towards East.</p> <ul style="list-style-type: none"> <li>NH 44 at a distance of ~3.75km towards East</li> <li>No SH present within 2km.</li> <li>Approach road at distance of 237m towards North which connects to NH44 towards East.</li> <li>NA</li> <li>Nil</li> <li>Nil</li> <li>Juna Kamptee village,2.0km, North</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 44 at a distance of ~3.75km towards East
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Juna Kamptee village,2.0km, North Kamptee village,1.00km, South Kanhan village,1.80km, East
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Kanhan PHC, 2.88km, East Gadeghat Amma Ki Dargah,0.81km, West Juna Kamptee village,2.0km, North Kamptee village,1.00km, South Kanhan village,1.80km, East
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	Areas susceptible to natural hazard which could cause the project to present	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning

	environmental problems (Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	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. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** :Juni Kamptee (Gadeghat)-B Sand Ghat ,Gut No. 230 & 241/2  
**Taluka** : Parshivni  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is Juni Kamptee (Gadeghat)-B Sand Ghat over an extent of 2.00 ha. at Gut No. 230 & 241/2, Village Juni Kamptee (Gadeghat), Tehsil Parshivni District Nagpur, Maharashtra. It has been proposed to collect approximately 5653 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5653 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a projec

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will beused for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass /tractor trolley)</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.25,000/- Water sprinkling</p> <p>Rs.8000/- Tarpaulin</p> <p>Rs 20000/- is proposed for baseline data for one time.</p>
<b><u>Conclusion:</u></b>					

	In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.				
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 20000/- is proposed for baseline data for one time
	<b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be	Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0	Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the	Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-

		<p>generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal.</p> <p>Mining activity will be done in dry bed only.</p>	<p>riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	
<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation.</p> <p>River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p> <p>Mining activity will be done in 20000 sq m area sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be done in dry</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019.</p> <p>Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	<p>Rs. 18,650/- Roadmaintenance</p>



			bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.		
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in theriver and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	1 tractor trips per day will be use for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dustgeneration. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs25,000/- water sprinkling
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of	Employment will be given to localpeople for unskilled and skilled labors.	Preference to be given to local people.	

		sand.			
	<b>Conclusion:</b> Preference given to local people for employment as labor.				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 132850/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs120000/- Mobile Toilet Rs 350/- waste bin
	<b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.				
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	No waste/ overburden will be generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
	<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.				

#### 4. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	25500/-
2.	Water Sprinkling	32,850/-
3.	Unpaved/ Haul Road maintenance	29,150/-
4.	Occupational Health & safety	1,00,000/-
5.	Tarpaulin	8000/-
6.	Plantation	15000/-
7.	Security	10000/-
<b>Total</b>		<b>220500/-</b>

**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																					
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>																		
1.	Name of the Mining Lease Site	:	Gosewadi A Bed Sand Ghat																		
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Gosewadi village, Tehsil- Saoner, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No.-550/3. <table border="1"> <thead> <tr> <th><b>Boundary Point</b></th> <th><b>Latitude</b></th> <th><b>Longitude</b></th> </tr> </thead> <tbody> <tr> <td align="center"><b>1</b></td> <td align="center">21°21'52.95"N</td> <td align="center">79°04'41.04"E</td> </tr> <tr> <td align="center"><b>2</b></td> <td align="center">21°21'50.52"N</td> <td align="center">79°04'43.92"E</td> </tr> <tr> <td align="center"><b>3</b></td> <td align="center">21°21'39.17"N</td> <td align="center">79°04'34.80"E</td> </tr> <tr> <td align="center"><b>4</b></td> <td align="center">21°21'41.82"N</td> <td align="center">79°04'32.30"E</td> </tr> <tr> <td align="center"><b>5</b></td> <td align="center">21°21'46.69"N</td> <td align="center">79°04'37.28"E</td> </tr> </tbody> </table>	<b>Boundary Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>1</b>	21°21'52.95"N	79°04'41.04"E	<b>2</b>	21°21'50.52"N	79°04'43.92"E	<b>3</b>	21°21'39.17"N	79°04'34.80"E	<b>4</b>	21°21'41.82"N	79°04'32.30"E	<b>5</b>	21°21'46.69"N	79°04'37.28"E
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<b>5</b>	21°21'46.69"N	79°04'37.28"E																			
3.	Size of the Mining Lease Area	:	4.20 Hectare																		
4.	Capacity of the Mining Lease	:	7420 Brass/Annum																		
5.	Period of the Mining Lease	:	One year																		
6.	Expected Cost of the Project	:	1.61/- (in crores)																		
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>																		
<b>(II) Environmental Sensitivity</b>																					
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>																		
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~2.41 Km away towards NW from Project Site.																		
2.	Distance from infrastructural Facilities Railway line	Pipla Halt Railway Station	At a distance of ~ 5.54 Km away towards WSW from Project Site.																		
	National Highway	NH- 47	At a distance of ~ 5.89 Km in SW direction from project site.																		
	State Highway/Highway	SH-249	At a distance of ~ 2.27 Km in NE direction from project site.																		
	Major District Road	-	-																		
	Any Other Road	-	-																		
	Electric transmission line pole or tower	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.																		
	Canal or check dam or reservoirs or lake or ponds	No	-																		
In-take for drinking water pump house	Gosewadi village	At a distance of ~ 0.57Km 4Km direction from the project site.																			

	Intake for Irrigation canal pumps	Gosewadi village	At a distance of ~0.57Km Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	No	-
10.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from quarry area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from quarry area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
16.	Densely populated or built-up area distance from nearest human habitation	Gosewadi village	At a distance of ~ 0.57Km direction from the project site.

17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Zilla Parishad Primary School, 0.75 km in SW of ML) Hospital:- Primary Health Centre, Dahegaon at 0.40 Km, towards NE of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Gosewadi A Sand Quarry (285,286 & 287 (Part))  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **44. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.20 Ha on Gosewadi A adjoining Ghut. No. 285,286 & 287 (Part), Tehsil: Saoner, District: Nagpur (Maharashtra). It has been proposed to collect approximately 7420 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 7420 Brass per annum.

### **45. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

**46. MATRIX FOR EMP**

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>23. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>24. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>23. 1.40 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>24. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 48,000/- Water sprinkling</b></p> <p><b>Rs 31000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

**Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle’s engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.



2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.80 KLD for domestic and 1.40 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,40,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.5 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.5 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 48000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,40,000/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs 1,32,750/- Mobile Toilet Rs 750/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					

#### 47. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	48000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	165500/-
5.	Tarpaulin	31000/-
6.	Plantation (along haul and River Bank road )	16000/-
7.	Security	8000/-
<b>Total</b>		<b>3,28,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Bawangaon B Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Bawangaon village, Tehsil- Saoner, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 550/3. <table border="1"> <thead> <tr> <th><b>Boundary Point</b></th> <th><b>Latitude</b></th> <th><b>Longitude</b></th> </tr> </thead> <tbody> <tr> <td align="center"><b>1</b></td> <td align="center">21°25'32.50"N</td> <td align="center">78°59'05.47"E</td> </tr> <tr> <td align="center"><b>2</b></td> <td align="center">21°25'22.91"N</td> <td align="center">79°59'17.65"E</td> </tr> <tr> <td align="center"><b>3</b></td> <td align="center">21°25'21.36"N</td> <td align="center">79°59'16.57"E</td> </tr> <tr> <td align="center"><b>4</b></td> <td align="center">21°25'30.49"N</td> <td align="center">79°59'04.67"E</td> </tr> </tbody> </table>	<b>Boundary Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>1</b>	21°25'32.50"N	78°59'05.47"E	<b>2</b>	21°25'22.91"N	79°59'17.65"E	<b>3</b>	21°25'21.36"N	79°59'16.57"E	<b>4</b>	21°25'30.49"N	79°59'04.67"E
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<b>4</b>	21°25'30.49"N	79°59'04.67"E																
3.	Size of the Mining Lease Area	:	2.70Hectare															
4.	Capacity of the Mining Lease	:	5724 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	1.17/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~0.48 Km away towards SE from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Saoner Railway Station	At a distance of ~ 7.29 Km away towards SW from Project Site.															
	National Highway	NH- 249	At a distance of ~ 0.48 Km in SE direction from project site.															
	State Highway/Highway	-	-															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Bawangaon village	At a distance of ~ 1.65Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
In-take for drinking water pump house	Bawangaon village	At a distance of ~ 1.65Km direction from the project site.																

	Intake for Irrigation canal pumps	Bawangaon village	At a distance of ~1.65Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	No	-
10.	Densely populated or built-up area distance from nearest human habitation	Bawangaon village	At a distance of ~ 1.65Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Jawahar High School & Junior College - High school Khapa, 0.77 km in SW of ML) Hospital:- Primary Health Centre, Khapa at 0.91 Km, towards SW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Bawangaon village	At a distance of ~ 1.65Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Jawahar High School & Junior College - High school Khapa, 0.77 km in SW of ML) Hospital:- Primary Health Centre, Khapa at 0.91 Km, towards SW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
16.	Densely populated or built-up area	Bawangaon	At a distance of ~ 1.65Km direction

	distance from nearest human habitation	village	from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - Jawahar High School & Junior College - High school Khapa, 0.77 km in SW of ML) Hospital:- Primary Health Centre, Khapa at 0.91 Km, towards SW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Bawangaon B Sand Quarry (203,204,208)  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **48. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.70 Ha on Bawangaon adjoining Ghut. No. 203,204,208, Tehsil: Saoner, District: Nagpur (Maharashtra). It has been proposed to collect approximately 5724 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5724 Brass per annum.

### **49. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.



**50. MATRIX FOR EMP**

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>25. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>26. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>25. 0.80 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>26. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 52,000/- Water sprinkling</b></p> <p><b>Rs 33000/- tarpaulin</b></p> <p><b>Rs 30000/-</b> is proposed for baseline data for one time.</p>

**Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 25000/-</b> is proposed for baseline data for one time
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water.</p> <p>Water requirement of 0.60 KLD for domestic and 0.80 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.</p>	Worker to be advised for use the waste bin and Mobile toilet.	<p><b>Mobile toilet: Rs 1,60,000/-</b></p> <p><b>Waste bin: Rs 750/-</b></p>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.6 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.6 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 25500/- Road maintenance</b>
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.</p>					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 52000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b>					
Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b>					
<b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,60,000/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs 1,32,750/- Mobile Toilet Rs 750/- waste bin</b>
<b>Conclusion:</b>					
Suggested to provided First aid and sanitary facility to workers.					

## 51. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	52000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	185500/-
5.	Tarpaulin	31000/-
6.	Plantation (along haul and River Bank road )	16000/-
7.	Security	8000/-
<b>Total</b>		<b>3,52,500/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Chikna-A Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Chikna-A village, Tehsil- Kamptee, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 55K/15. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°6'39.52"N</td> <td>79°24'43.45"E</td> </tr> <tr> <td>2</td> <td>21°6'41.43"N</td> <td>79°24'43.69"E</td> </tr> <tr> <td>3</td> <td>21°6'37.06"N</td> <td>79°24'54.79"E</td> </tr> <tr> <td>4</td> <td>21°6'34.91"N</td> <td>79°24'54.38"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°6'39.52"N	79°24'43.45"E	2	21°6'41.43"N	79°24'43.69"E	3	21°6'37.06"N	79°24'54.79"E	4	21°6'34.91"N	79°24'54.38"E
Boundary Point	Latitude	Longitude																
1	21°6'39.52"N	79°24'43.45"E																
2	21°6'41.43"N	79°24'43.69"E																
3	21°6'37.06"N	79°24'54.79"E																
4	21°6'34.91"N	79°24'54.38"E																
3.	Size of the Mining Lease Area	:	2.25 Hectare															
4.	Capacity of the Mining Lease	:	3975 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	0.99/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~ 3.67Km away towards NW from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Nawegaon, Railway Station	At a distance of ~ 15.60 Km away towards N from Project Site.															
	National Highway	NH- 53	At a distance of ~ 3.28 Km in N direction from project site.															
	State Highway/Highway	-	-															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.															
	Canal or check dam or reservoirs or lake or ponds	No	-															
In-take for drinking water pump house	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.																

	Intake for Irrigation canal pumps	Chikna-A village	At a distance of ~0.63 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the study area.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~26.00 Km towards NW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St. Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St. Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
16.	Densely populated or built-up area	Chikna-A village	At a distance of ~ 0.63 Km

	distance from nearest human habitation		direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Chikna-A Sand Quarry (Ghut. No. 8,9/1,9/2,10/1,10/2,11,12 (Part))  
**Taluka** : Kamptee  
**District** : Nagpur (Maharashtra)

### **52. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.25 Ha on Chikna-A adjoining Ghut. No. 8, 9/1,9/2,10/1,10/2,11,12 (Part), Village: Chikna-A, Tehsil: Kamptee, District: Nagpur (Maharashtra). It has been proposed to collect approximately 3975 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 3975 Brass per annum.

### **53. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.

#### 54. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>27. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>28. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>27. 0.9 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>28. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b>Unpaved Roads</b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b>Paved Roads</b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b>Transportation vehicles</b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs 45,000/- Water sprinkling</p> <p>Rs 33000/- tarpaulin</p> <p>Rs 35000/- is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.60 KLD for domestic and 0.90 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,00,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.50 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.50 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 30750/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are in negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 45000/- water sprinkling</b>
		Pit developed due to mining may be dangerous for animals.			

<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,78,000/- Rs 5500/- for First Aid Box Rs 9000/- Personal Protective Equipment Rs 12000/- For Temporary shed Rs 1,50,000/- Mobile Toilet Rs 1500/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

## 55. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	45000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	178000/-
5.	Tarpaulin	33000/-
6.	Plantation (along haul and River Bank road )	14200/-
7.	Security	8000/-
<b>Total</b>		<b>3,38,200/-</b>

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**Environment Management Plan**  
**For**  
**Nerighat Sand Ghat, Kamptee Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Nerighat	Kamptee	Kanhan	217/2/3,219,220,221/1 /2,223 & 224/1 (Part)	4.85	565x86x1.5	25754

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**  
**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** :Neri Sand Ghat ,Gut No. 217/2/3,219,220,221/1/2,223 & 224/1 (Part)  
**Taluka** : Kamptee  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of ha on Kanhan River, Gut No. 252&253, village Neri, Tehsil Kamptee, District Nagpur (Maharashtra). It has been proposed to collect approximately 25754Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 25754 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.



### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will beused for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.50,000/- Water sprinkling</p> <p>Rs.20000/- Tarpaulin</p> <p>Rs 45000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 25000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>                      In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,350/- Waste bin: Rs 350/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and waste will not be met to surface water. Advised to workers to use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up</p>	<p>Rs. 45,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			<p>Mining activity will be done in 48590 sq m area. Sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only.</p> <p>Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.</p>	<p>to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	<p>No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed.</p> <p>Suspended particulates are only source, which has the impact on nearby crops.</p> <p>Pit developed due to mining may be dangerous</p>	<p>1 tractor trip per day will be used for transportation of sand. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.</p>	<p>Water spraying on haul road and time to time maintenance will be done to avoid dust generation.</p> <p>Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.</p>	Rs.50,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		for animals.			
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Positive impact due to proposed mining activity are employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	On site anticipated hazards are health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 133200/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs.120350/- Mobile Toilet Rs 350/- waste bin
<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project.	No waste/ overburden will be generated, thus management plan is not applicable. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
<p><b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.</p>					

#### 4. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	55750
4.	Occupational Health & safety	157250
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>418000</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2'**  
**FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

(i) Name of the Mining Lease site: Neri Sand Ghat over an extent of 4.85 ha. at Gut No. 217/2/3,219,220,221/1/2,223 & 224/1 (Part), Village Neri, Tehsil Kamptee, District- Nagpur, Maharashtra.

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°12'34.65"N	79°16'14.61"E
BP-2	21°12'30.82"N	79°16'13.82"E
BP-3	21°12'29.89"N	79°16'20.05"E
BP-4	21°12'28.44"N	79°16'26.65"E
BP-5	21°12'32.31"N	79°16'27.22"E
BP-6	21°12'34.33"N	79°16'20.54"E

- (iii) Size of the Mining Lease (Hectare): 4.85
- (iv) Capacity of Mining Lease (TPA): 25754 Brass
- (v) Period of Mining Lease: 01 years
- (vi) Expected cost of the Project: INR 15,814,000/-
- (vii) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Bridge is 0.7km from sand ghat, South
2.	Distance from infrastructural facilities <ul style="list-style-type: none"><li>• Railway line</li><li>• National Highway</li></ul>	<ul style="list-style-type: none"><li>• Kanhan railway station ,3.94 km, North</li><li>• Kampte kapsi is present at an approx. distance of 1.02 km in south of the sand ghat area</li></ul>



	<ul style="list-style-type: none"> <li>State Highway</li> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>Kampte kapsi is present at an approx. distance of 1.02 km in south of the sand ghat area</li> <li>Kampte kapsi is present at an approx. distance of 1.02 km in south of the sand ghat area</li> <li>Nil</li> <li>Nil</li> <li>Neri village,2.21km, South</li> <li>Neri village,2.21km, South</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH-547 is present at an approx. distance of 3.80 km in south of the sand ghat area
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Neri village,2.21km, South
11.	Areas occupied by sensitive man-made land uses(Hospitals, schools, places of worship, community facilities)	Small temple at dis. 1.34 km South
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations	No

	or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	
17.	Forest land involved (hectares)	No forest land involved
18.	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. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan**  
**For**  
**Ungaon Sand Ghat, Kamptee Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Ungaon	Kamptee	Kanhan	212,217,218,219,222,211 (Part)	4.81	650x74x0.30	5098

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Ungaon Sand Ghat, Gut No. 212,217,218,219,222,211 (Part),  
**Taluka** : Kamptee  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.81 ha on Kanhan River, Gut No. 212,217,218,219,222,211 (Part), village Ungaon, Tehsil Kamptee, District Nagpur (Maharashtra). It has been proposed to collect approximately 5098 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5098 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be used for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.50,000/- Water sprinkling</p> <p>Rs.15000/- Tarpaulin</p> <p>Rs 45000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			(1Brass /tractor trolley).		
<p><b><u>Conclusion:</u></b> In this proposed mining project, the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 45000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 2 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 750/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be done in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed</p>	<p>Rs. 45,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			48100 sq m area sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	only. Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 50,000/- water sprinkling



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
	<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,37,250/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
	<p><b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.</p>				
8.	Waste/	No waste will be generated	No waste/ overburden will	No waste/ overburden will be	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Overburden	from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	
	<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.				

#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	55750
4.	Occupational Health & safety	157250
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>418000</b>

**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M**

**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2' FOR  
LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

(i) Name of the Mining Lease site: Ungaon Sand Ghat over an extent of 4.81 ha. at Gut No. 212,217,218,219,222,211 (Part), village Ungaon, Tehsil Kamptee, District Nagpur (Maharashtra).

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°11'49.38"N	79°17'54.56"E
BP-2	21°11'51.79"N	79°17'54.36"E
BP-3	21°11'50.26"N	79°18'4.62"E
BP-4	21°11'44.52"N	79°18'15.12"E
BP-5	21°11'41.98"N	79°18'14.30"E
BP-6	21°11'47.79"N	79°18'4.04"E

(iii) Size of the Mining Lease (Hectare): 4.81

(iv) Capacity of Mining Lease (TPA): 5098 Brass

(v) Period of Mining Lease: 01 years

(vi) Expected cost of the Project: INR 1.06 Crores

(vii) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Kanhan River bridge, 3.54km towards North
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> </ul>	<ul style="list-style-type: none"> <li>• Kanhan railway station is at distance of 7.03 km towards North</li> <li>• Kamptee railway station is at distance of 10.66km towards West</li> <li>• NH 247 at a distance of ~4.49km towards South</li> <li>• SH-266 at distance of 2.28km towards North</li> <li>• The sand spot area is connected to approached</li> </ul>

	<ul style="list-style-type: none"> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house Intake for Irrigation canal pumps</li> </ul>	<p>road at a distance of ~33.75meter in South direction, this road is further connected to Kamptee Kapsi road at a distance of ~2.87km. in West of the sand ghat spot.</p> <ul style="list-style-type: none"> <li>NA</li> <li>Nil</li> <li>Undgaon village,1.42km, South</li> <li>Sonegaon village,1.14km, South</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 247 at a distance of ~4.49km towards South
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	<ul style="list-style-type: none"> <li>Undgaon village,1.42km, South</li> <li>Sonegaon village,1.14km, South</li> </ul>
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Kanhan PHC at a distance of ~7.40km towards North
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.

16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	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. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan**  
**Chikna A Sand Ghat, Kamptee Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Chikna A	Kamptee	Kanhan	8,9/1,9/2,10/1,10/2,11,12 (Part)	2.25	450X50X0.5	3975

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Chikna-A Sand Quarry (Ghut. No. 8,9/1,9/2,10/1,10/2,11,12 (Part))  
**Taluka** : Kamptee  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 2.25 Ha on Chikna-A adjoining Ghut. No. 8, 9/1,9/2,10/1,10/2,11,12 (Part), Village: Chikna-A, Tehsil: Kamptee, District: Nagpur (Maharashtra). It has been proposed to collect approximately 3975 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 3975 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user friendly activity chart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details are captured and documented at all stages of a project.



### 3. MATRIX FOR EMP

S No	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 1 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 0.9 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from mine site. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicles will be used. Over loading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p><b>Rs 45,000/- Water sprinkling</b></p> <p><b>Rs 33000/- tarpaulin</b></p> <p><b>Rs 35000/-</b> is proposed for baseline data for one time.</p>

#### **Conclusion:**

In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.

2.	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicles will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed.	Vehicle will be maintained in good condition to avoid unnecessary noise. Road leveling will be done time to time.	<b>Rs 35000/-</b> is proposed for baseline data for one time.
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**Conclusions:**

In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.

3.	Water Environment	<b>Ground water:</b> Ground water will not be intersected during mining work.  <b>Surface water:</b> no impact anticipated for surface water.	Mining activity will not intersect to ground water. Water requirement of 0.60 KLD for domestic and 0.90 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilet and Waste bins will be provided for domestic waste. Mining activity will be done in dry bed only.	Worker to be advised for use the waste bin and Mobile toilet.	<b>Mobile toilet: Rs 1,00,000/-</b> <b>Waste bin: Rs 750/-</b>
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**Conclusions:**

In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.

4.	Land Environment	Road will be degraded due to transportation. River course erosion due to mined out sand from river.	Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be restricted to maximum depth of 0.50 m as per GSDA survey. Mining activity will not be done near the river banks. Mining activity will be done in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	Mining activity will be done as per Rule 23 of MMME (D&R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.50 m depth and dry bed only. Mining will not be done near river banks.	<b>Rs 30750/- Road maintenance</b>
<b>Conclusions:</b>					
Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface.					
5.	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on near by crops.	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation.	<b>Rs 45000/- water sprinkling</b>

		Pit developed due to mining may be dangerous for animals.			
<b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
<b>Conclusion:</b> <b>Preference given to local people for employment as labor.</b>					
7.	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spadesand heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	<b>Total Amount: Rs 1,78,000/-</b> <b>Rs 5500/- for First Aid Box</b> <b>Rs 9000/- Personal Protective Equipment</b> <b>Rs 12000/- For Temporary shed</b> <b>Rs 1,50,000/- Mobile Toilet</b> <b>Rs 1500/- waste bin</b>
<b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.					

#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures:

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	30000/-
2.	Water Sprinkling	45000/-
3.	Unpaved/ Haul road maintenance	30000/-
4.	Occupational Health & safety	178000/-
5.	Tarpaulin	33000/-
6.	Plantation (along haul and River Bank road )	14200/-
7.	Security	8000/-
<b>Total</b>		<b>3,38,200/-</b>

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**APPENDIX VIII**

**(See paragraph - 6) FORM 1M**

**Application for Mining of Minor Minerals under  
Category 'B2' for less than and Equal to Five Hectare**

<b>(I) Basic Information</b>																		
<b>S. No.</b>	<b>Item</b>	<b>:</b>	<b>Details</b>															
1.	Name of the Mining Lease Site	:	Chikna-A Bed Sand Ghat															
2.	Location/Site (GPS Co-ordinate)	:	The proposed sand quarry area is situated in Chikna-A village, Tehsil- Kamptee, District- Nagpur (Maharashtra).The project site falls within the Survey of India Toposheet No. 55K/15. <table border="1"> <thead> <tr> <th>Boundary Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°6'39.52"N</td> <td>79°24'43.45"E</td> </tr> <tr> <td>2</td> <td>21°6'41.43"N</td> <td>79°24'43.69"E</td> </tr> <tr> <td>3</td> <td>21°6'37.06"N</td> <td>79°24'54.79"E</td> </tr> <tr> <td>4</td> <td>21°6'34.91"N</td> <td>79°24'54.38"E</td> </tr> </tbody> </table>	Boundary Point	Latitude	Longitude	1	21°6'39.52"N	79°24'43.45"E	2	21°6'41.43"N	79°24'43.69"E	3	21°6'37.06"N	79°24'54.79"E	4	21°6'34.91"N	79°24'54.38"E
Boundary Point	Latitude	Longitude																
1	21°6'39.52"N	79°24'43.45"E																
2	21°6'41.43"N	79°24'43.69"E																
3	21°6'37.06"N	79°24'54.79"E																
4	21°6'34.91"N	79°24'54.38"E																
3.	Size of the Mining Lease Area	:	2.25 Hectare															
4.	Capacity of the Mining Lease	:	3975 Brass/Annum															
5.	Period of the Mining Lease	:	One year															
6.	Expected Cost of the Project	:	0.99/- (in crores)															
7.	Contact Information	:	District Mining Officer (DMO), Nagpur Collectorate, Nagpur (Maharashtra) Email: <a href="mailto:Dmonagpur1@gmail.com">Dmonagpur1@gmail.com</a>															
<b>(II) Environmental Sensitivity</b>																		
<b>S. No.</b>	<b>Areas</b>	<b>Name/Identity</b>	<b>Distance in Kilometer/Details</b>															
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	Kanhan River Bridge	At a distance of ~ 3.67Km away towards NW from Project Site.															
2.	Distance from infrastructural Facilities Railway line	Nawegaon, Railway Station	At a distance of ~ 15.60 Km away towards N from Project Site.															
	National Highway	NH- 53	At a distance of ~ 3.28 Km in N direction from project site.															
	State Highway/Highway	-	-															
	Major District Road	-	-															
	Any Other Road	-	-															
	Electric transmission line pole or tower	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.															
Canal or check dam or reservoirs or lake or ponds	No	-																

	In-take for drinking water pump house	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
	Intake for Irrigation canal pumps	Chikna-A village	At a distance of ~0.63 Km direction from the project site.
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No such area is located within the studyarea.
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	The quarry area is itself part of water body i.e. River Kanhan, there are number of tributes of River Kanhan is also available in Study Area.
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	---
6.	Inland, coastal, underground waters	Marine	Or
7.	State, National boundaries	No	None
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	-
9.	Defense installations	Yes	Cantonment Board Office Kamptee, At a distance of ~26.00 Km towards NW from the Project site.
10.	Densely populated or built-up area distance from nearest human habitation	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St. Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.
13.	Densely populated or built-up area distance from nearest human habitation	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
14.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St. Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
15.	Areas containing important, high quality or scarce resources (ground water resources, surface resources,	No	Quarry mine area is falls in river Kanhan.

	forestry, agriculture, fisheries, tourism, minerals)		
16.	Densely populated or built-up area distance from nearest human habitation	Chikna-A village	At a distance of ~ 0.63 Km direction from the project site.
17.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	School: - St. Rossello's School (CBSE) - School, 5.12 km in NW of ML) Hospital:- Primary health centre, Mauda at 4.28 Km, towards NW of ML from query area.
18.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Quarry mine area is falls in river Kanhan.

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

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**Environment Management Plan**  
**For**  
**Chichghat Sand Ghat, Kuhu Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Chichghat	Kuhu	Kanhan	43	4.85	300x100x0.5	5300

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Chichghat Sand Ghat over an extent of 3.00 ha. at Gut No. 43, Village Chichghat.

**Taluka** : Kuhi

**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 3.00ha on Kanhan River, at Gut No. 43, Village Chichghat, Tehsil Kuhi, District- Nagpur, Maharashtra. It has been proposed to collect approximately 5300 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 5300 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will beused for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.20,000/- Water sprinkling</p> <p>Rs.15000/- Tarpaulin</p> <p>Rs 20000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			(1Brass /tractor trolley)		
<p><b><u>Conclusion:</u></b> In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 20000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up</p>	<p>Rs. 25,650/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			<p>Mining activity will be done from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be done in dry bed only.</p> <p>Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.</p>	to 0.40 m depth and dry bed only. Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in theriver and nearby land surface</p>					
5	Biological Environment	<p>No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed.</p> <p>Suspended particulates are only source, which has the impact on nearby crops.</p> <p>Pit developed due to mining may be dangerous for animals</p>	<p>1 tractor trips per day will be use for transportation of sand. So anticipated suspended particulates are in negligible.</p> <p>Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.</p>	<p>Water spraying on haul road and time to time maintenance will be done to avoid dustgeneration.</p> <p>Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.</p>	Rs 3 0,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
	<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,33,200/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 350/-
	<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>				
8.	Waste/	No waste will be generated	No waste/ overburden will	No waste/ overburden will be	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Overburden	from mining of mineral . Overburden or top soil is absent in the proposed river sand project.	be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	
<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.					



#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	23500
2.	Water Sprinkling	33500
3.	Unpaved/ Haul Road maintenance	25650
4.	Occupational Health & safety	132850
5.	Tarpaulin	8000
6.	Plantation	15000
7.	Security	10,000
	<b>Total</b>	<b>248500</b>

**APPENDIX VIII**  
**(See paragraph 6)**  
**FORM 1 M**  
**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2'**  
**FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

(i) Name of the Mining Lease site: Chichghat Sand Ghat over an extent of 3.00 ha. at Gut No. 43, Village Chichghat, Tehsil Kuhi, District- Nagpur, Maharashtra

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°6'33.84"N	79°27'18.97"E
BP-2	21°6'30.45"N	79°27'19.32"E
BP-3	21°6'30.47"N	79°27'29.30"E
BP-4	21°6'33.66"N	79°27'29.53"E

(iii) Size of the Mining Lease (Hectare): 3.00

(iv) Capacity of Mining Lease (TPA): 5300Brass

(v) Period of Mining Lease: 01 years

(vi) Expected cost of the Project: INR 1.43 Cr

(vii) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Nil
2.	Distance from infrastructural facilities <ul style="list-style-type: none"><li>• Railway line</li><li>• National Highway</li><li>• State Highway</li></ul>	<ul style="list-style-type: none"><li>• Railway line and Railway station is not present within 2-5 km radius. Kuhi railway station at distance of 15 km towards South.</li><li>• NH 247 at a distance of ~12km towards West</li><li>• No SH within 2-5 km is present</li></ul>

	<ul style="list-style-type: none"> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>Nil</li> <li>Approach road at distance of 0.94km towards South</li> <li>NA</li> <li>Chichghat village,2.45km, South</li> <li>Chichghat village,2.45km, South</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 247 at a distance of ~12km towards West
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Rohana village,1.17km, West
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Kuhi rural Hospital, Saoner 14.23km, South Small temple towards South at distance of 4.16 km
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980;	No

	(b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	
17.	Forest land involved (hectares)	No forest land involved
18.	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. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

**Environment Management Plan**  
**For**  
**Chiknaghat Sand Ghat, Mouda Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Chiknaghat	Mouda	Kanhan	543/1, 542, 541, 543/2	4.86	540x90x0.6	10303

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Chiknaghat Sand Ghat, Gut No. 543/1,542,541,543/2  
**Taluka** : Saoner  
**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of 4.860ha on Kanhan River, Gut No. 543/1,542,541,543/2, village Chiknaghat, Tehsil Mouda, District Nagpur (Maharashtra). It has been proposed to collect approximately 10303 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 10303 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 2 no of tractor trolley per day.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be used for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will be used for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transport vehicles. The loaded vehicles will be covered with tarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.40,000/- Water sprinkling</p> <p>Rs.15000/- Tarpaulin</p> <p>Rs 45000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			(1Brass /tractor trolley).		
<p><b><u>Conclusion:</u></b> In this proposed mining project, the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 45000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b> In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 2 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water. Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,000/- Waste bin: Rs 750/-</p>
<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and any hazards waste will not be met to surface water. Advised to workers use the dust bin to dispose any domestic solid waste.</p>					
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material. Mining activity will be done in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed</p>	<p>Rs. 40,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			48600 sq m area sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	only. Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops. Pit developed due to mining may be dangerous for animals	3 tractor trips per day will be used for transportation of sand. So anticipated suspended particulates are negligible. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.	Rs 40,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>				
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Over all positive impact will be done due to proposed mining activity like employment, availability of sand.	Employment will be given to local people for unskilled labor.	Advise to lease given preference to local people.	
	<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>				
7	Occupational Health & Safety	Hazards on site are anticipated like health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 1,37,250/- Rs 2500/- for First Aid Box Rs 4000/- Personal Protective Equipment Rs 10000/- For Temporary shed Rs.1,20,000/- Mobile Toilet Rs 750/- waste bin
	<p><b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.</p>				
8.	Waste/	No waste will be generated	No waste/ overburden will	No waste/ overburden will be	--

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	Overburden	from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	be generated from the river sand mining project, thus not any mitigation measure or management plan is adopted.	generated, thus management plan does not required for Waste/ overburden. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	
	<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.				

#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	55750
4.	Occupational Health & safety	157250
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>418000</b>

**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M**

**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2'  
FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

- (i) Name of the Mining Lease site: Chiknaghat Sand Ghat over an extent of 4.86 ha. at Gut No. 543/1,542,541,543/2, Village Chiknaghat, Tehsil Mouda, District- Nagpur, Maharashtra
- (ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°6'50.30"N	79°23'46.10"E
BP-2	21°6'48.03"N	79°23'47.81"E
BP-3	21°6'46.17"N	79°23'49.87"E
BP-4	21°6'44.05"N	79°23'53.14"E
BP-5	21°6'40.56"N	79°23'59.32"E
BP-6	21°6'38.20"N	79°23'59.32"E
BP-7	21°6'41.50"N	79°23'51.64"E
BP-8	21°6'43.90"N	79°23'47.92"E
BP-9	21°6'46.18"N	79°23'45.41"E
BP-10	21°6'48.15"N	79°23'43.99"E

- (iii) Size of the Mining Lease (Hectare): 4.86ha
- (iv) Capacity of Mining Lease (TPA): 10303Brass
- (v) Period of Mining Lease: 01 year
- (vi) Expected cost of the Project: INR 3.21 Crores
- (vii) Contact Information: District Mining Officer, Nagpur

## (II) ENVIRONMENTAL SENSITIVITY

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Not present within 2-5km radius
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> <li>• State Highway</li> <li>• Major District Road</li> <li>• Any Other Road</li> <li>• Electric transmission line pole or tower</li> <li>• Canal or check dam or reservoirs or lake or ponds</li> <li>• In-take for drinking water pump house</li> <li>• Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>• There is no railway line and railway station within 2km-5km.</li> <li>• NH 53 at a distance of ~2.9km towards North</li> <li>• SH-253 at distance of 4.34km towards North</li> <li>• The sand spot area is connected to small village kachaa road towards North at distance of 444metres which further connects to NH53.</li> <li>• NA</li> <li>• Not present nearby the area</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH 53 at a distance of ~2.9km towards North.
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	Wanjra village,2.06km, East Chikna village,1.00km, South
11.	Areas occupied by sensitive man-made land uses (Hospitals, schools, places of worship, community facilities)	Maitri hospital at a distance of ~3.85km towards North
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture,	Kanhan River (this is the case of river sandmining)

	fisheries, tourism, minerals)	
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

**Date:** \_\_/12/2021



**Environment Management Plan**  
**For**  
**Kirnapur Sand Ghat, Mouda Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Kirnapur	Mouda	Kanhan	103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5	4.95	620x80x0.8	14021

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Kirnapur Sand Ghat over an extent of 4.95 ha. at Gut No. 103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5.

**Taluka** : Mouda

**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is Kirnapur Sand Ghat over an extent of 4.95 ha. at Gut No. 103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5, Village Kirnapur, Tehsil Mouda, District- Nagpur, Maharashtra. It has been proposed to collect approximately 14021 Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 14021 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will beused for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.50,000/- Water sprinkling</p> <p>Rs.20000/- Tarpaulin</p> <p>Rs 45000/- is proposed for baseline data for one time.</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
	<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>				
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 25000/- is proposed for baseline data for one time
	<p><b><u>Conclusions:</u></b></p>				

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,350/- Waste bin: Rs 350/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and waste will not be met to surface water. Advised to workers to use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand</p>	<p>Rs. 45,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		mined out sand from river.	good condition by using local earth material. Mining activity will be done in 49500 sq m area. Sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only. Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.	policy 03.09.2019. Mining activity will be done up to 0.40 m depth and dry bed only. Mining will not be done near river banks.	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed. Suspended particulates are only source, which has the impact on nearby crops.	1 tractor trip per day will be used for transportation of sand. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.	Water spraying on haul road and time to time maintenance will be done to avoid dust generation. Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for	Rs.50,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		Pit developed due to mining may be dangerous for animals.		maintaining ecology and environment of the area.	
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Positive impact due to proposed mining activity are employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	On site anticipated hazards are health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 133200/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs.120350/- Mobile Toilet Rs 350/- waste bin

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	<b><u>Conclusion:</u></b> Suggested to provided First aid and sanitary facility to workers.				
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project.	No waste/ overburden will be generated, thus management plan is not applicable. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
	<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.				

#### 4. FUND PROVISION FOR EMP

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

S No	Particulars	Amount in Rs
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	55750
4.	Occupational Health & safety	157250
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
	<b>Total</b>	<b>418000</b>



Kirnapur Sand Ghat over an extent of 4.95 ha. at Gut No. 103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5, Village Kirnapur, Tehsil Mouda, District- Nagpur, Maharashtra

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**Environmental  
Management Plan**



**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M**

**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

(i) Name of the Mining Lease site: Kirnapur Sand Ghat over an extent of 4.95 ha. at Gut No. 103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5, Village Kirnapur, Tehsil Mouda, District- Nagpur, Maharashtra.

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°10'1.86"N	79°20'33.95"E
BP-2	21°10'3.29"N	79°20'37.11"E
BP-3	21°10'5.34"N	79°20'40.14"E
BP-4	21°10'10.88"N	79°20'45.78"E
BP-5	21°10'8.09"N	79°20'48.32"E
BP-6	21°10'5.99"N	79°20'46.40"E
BP-7	21°10'3.56"N	79°20'44.07"E
BP-8	21°10'1.33"N	79°20'40.61"E
BP-9	21°9'59.22"N	79°20'35.50"E

(iii) Size of the Mining Lease (Hectare): 4.95

(iv) Capacity of Mining Lease (TPA): 14021 Brass

(v) Period of Mining Lease: 01 years

(vi) Expected cost of the Project: ~ INR 15,814,000/

(vii) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Kanhan river Bridge, Mouda is ~ at 5.70km from sand ghat towards South.
2.	Distance from infrastructural facilities	

	<ul style="list-style-type: none"> <li>Railway line</li> <li>National Highway</li> <li>State Highway</li> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>Railway station/Railway line is not present within 2-5km of project site. Tarsa railway station is at dis of ~ 7.27 km towards North.</li> <li>NH-247 is present at an approx. distance of 5.8 km in West of the sand ghat area.</li> <li>SH253 at distance of ~4.30km towards East.</li> <li>SH257 at distance of~ 5.27km towards North</li> <li>Kirnapur village road is present at an approx. distance of ~375 m in North of the sand ghat area which further connects to SH 253 and SH257 towards East and North respectively.</li> <li>Nil</li> <li>Nil</li> </ul> <p>} Kirnapur village,0.61km, West Zullar village ,0.67km, South West Sukali village ,1.5 km ,North East</p>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	<ul style="list-style-type: none"> <li>NH-247 is present at an approx. distance of 5.8 km in West of the sand ghat area.</li> <li>SH253 at distance of ~4.30km towards East.</li> <li>SH257 at distance of~ 5.27km towards North</li> </ul>
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	<ul style="list-style-type: none"> <li>Kirnapur village,0.61km, West</li> <li>Zullar village ,0.67km, South West</li> <li>Sukali village ,1.5 km ,North East</li> </ul>
11.	Areas occupied by sensitive man-made land uses(Hospitals, schools, places of worship, community facilities)	<ul style="list-style-type: none"> <li>Kirnapur village,0.61km, West</li> <li>Zullar village ,0.67km, South West</li> <li>Sukali village ,1.5 km ,North East</li> <li>Small temple ,906m South in Zullar village</li> <li>PHC Mouda ,6km ,South</li> <li>Borkar hospital,6.14km, South</li> </ul>

12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	This is River sand mining project.
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: - (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	No
17.	Forest land involved (hectares)	No forest land involved
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. Orders or directions of the Court, if any, and its relevance with the proposed project.	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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 give, if any to the project will be revoked at our risk and cost.

**Date:** \_\_/12/2021

**Environment Management Plan**  
**For**  
**Mohkhedi Sand Ghat, Mouda Taluka, Nagpur District,**  
**State Maharashtra**

<b>Name of Sand Ghat</b>	<b>Tehsil</b>	<b>Name of river</b>	<b>Nearest Gut No.</b>	<b>Area in ha</b>	<b>Area in cum LxBxD (m3)</b>	<b>Available Sand in Brass</b>
Mohkhedi	Mouda	Kanhan	117,118 & 119	4.90	490x100x0.7	12120

**Project Proponent**  
**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**  
**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

**December 2021**

## **ENVIRONMENT MANAGEMENT PLAN**

**Name of Sand Ghat** : Mohkhedi Sand Ghat over an extent of 4.90 ha. at Gut No. 117, 118 & 119.

**Taluka** : Mouda

**District** : Nagpur (Maharashtra)

### **1. INTRODUCTION**

The proposed mining method is of manual nature and the lease area is not so big. The Proposed project is river bed sand mining project of area of ha on Kanhan River, Gut No. 117,118 & 119, village Mohkhedi, Tehsil Mouda, District Nagpur (Maharashtra). It has been proposed to collect approximately Brass/Annum of sand.

In this chapter, an attempt has been made to quantify the possible environmental impacts on various features such as air, water, noise, land, ecology and socio-economies. The following aspects have been studied to identify the possible impacts while achieving the total production of 12120 Brass per annum.

### **2. PURPOSE OF EMP**

The purpose of an EMP is to

- Assists project proponent in the preparation of an effective and user-friendly activitychart for environment management.
- Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- Ensure that environment management details is captured and documented at all stages of a project.

### 3. MATRIX FOR EMP

Environment Management plan matrix is given in Table no.1.

**Table 1: Environmental Management Plan Matrix**

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
1.	Air Environment	<p>1. Dust generation due to transportation material by 01 no of tractor trolley perday.</p> <p>2. In mining activities, the only source of gaseous emissions is from the engines of transport vehicles.</p>	<p>1. 1.0 KLD water will be use for regular water spraying of 1.10 km distance of road. Regularly road leveling and maintenance will be done. Loading material will be covered with tarpaulin and overloading will be avoided.</p> <p>2. PUC certified vehicles will beused for transportation and run under limited speed. Regular maintenance will be done of vehicles.</p> <p>3. In addition to prevent spillage by tractor trolleys over loading should be controlled along with speed limit (1Brass</p>	<p><b><u>Unpaved Roads</u></b> Water sprinkling will be done for dust suppression for 1.10 km distance from minesite. To maintain the uniform speed of the trucks/tippers. Leveling will be done.</p> <p><b><u>Paved Roads</u></b> The roads will be maintained regularly. Limited speed will be adopted by transportvehicles. The loaded vehicles will be covered withtarpaulin.</p> <p><b><u>Transportation vehicles</u></b> The vehicles will be kept at good condition by regular servicing and maintenance. PUC certified vehicle will be used. Overloading will be avoided. Air monitoring will be done to check the criteria of air pollutants.</p>	<p>Rs.50,000/- Water sprinkling</p> <p>Rs.20000/- Tarpaulin</p> <p>Rs 45000/- is proposed for baseline data for one time.</p>



#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			/tractor trolley).		
<p><b><u>Conclusion:</u></b>                      In this proposed mining project the suspended particulates from unpaved road and emission from transportation vehicle's engine are the source air pollution. The proposed mining operations are not anticipated to raise the concentration of the pollutants beyond prescribed limits. However, the measures are suggested to mitigate any harmful impacts of pollutants like planning transportation routes of mined material so as to reach the nearest paved roads by shortest route and avoid over speed and over loading.</p>					
2	Noise Environment	1 no of tractor trolley and a tractor for water sprinkling will be source of noise pollution. The impact of noise pollution will be for very short time. No machinery will be use for mining operation.	Noise generated by the transport vehicle will be intermittent and for very short time, it will not cause much adverse impact. Vehicles will be maintained to avoid unnecessary noise. Periodical monitoring of noise will be done to adopt corrective actions wherever needed. Mining shall not be carried out night time, only permitted for day time. No heavy machinery is allowed for excavation only tractor with trolley will be used for transportation of sand from river bed	Vehicle to be maintained in good condition to avoid unnecessary noise. Timely maintenance of vehicles and their silencers to minimize vibration and Sound. Road leveling will be done time to time. Phasing out of old and worn-out tractor trolleys. Provision of green belts along the road networks. Care to be taken to produce minimum sound during sand loading. Use of Backhoe and ear plugs may be provided to protect the labours working at the site. Minimum use of Horns in village area.	Rs 25000/- is proposed for baseline data for one time
<p><b><u>Conclusions:</u></b>                      In conclusion, the main source of noise for project will be transportation. Measures are suggested to minimize the noise pollution limited</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
	speed of vehicles and regular maintenance of vehicles and approach road.				
3.	Water Environment	<p><b>Ground water:</b> Ground water will not be intersected during mining work. No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of sand from river quarry in dry state.</p> <p><b>Surface water:</b> no impact anticipated for surface water.</p>	<p>Mining activity will not intersect to ground water. Water requirement of 0.50 KLD for domestic and 1.0 KLD for water sprinkling will be met through water tanker. Low water demand will not be affected to ground water.</p> <p>Mobile Toilets will be provided for waste water and Domestic waste to be collected in dust bins and handed over to the local authority for disposal. Mining activity will be done in dry bed only.</p>	<p>Mining is stopped during the monsoon season and at the time of floods. This helps in replenishment of sand in the riverbed.</p> <p>Worker to be advised for use the waste bin and Mobile toilets.</p>	<p>Mobile toilet: Rs. 1,20,350/- Waste bin: Rs 350/-</p>
	<p><b>Conclusions:</b> In this mining project in the entire lease period the ground water table will not be intersected hence there will be no impact on the ground water environment and waste will not be met to surface water. Advised to workers to use the dust bin to dispose any domestic solid waste.</p>				
4	Land Environment	<p>Road will be degraded due to transportation. River course erosion due to mined out sand from river.</p>	<p>Regular water sprinkling will be done. Road of 1.10 km length will be maintained in good condition by using local earth material.</p>	<p>Mining activity will be done as per Rule 23 of MMME (D&amp;R) Rule 2013 and Maharashtra Sand policy 03.09.2019. Mining activity will be done up</p>	<p>Rs. 45,750/- Road maintenance</p>

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
			<p>Mining activity will be done in 49000 sq m area. Sand from river will be restricted to maximum depth of 0.40 m as per GSDA survey. Mining activity will not be carried near the river banks. Mining activity will be carried in dry bed only.</p> <p>Monitoring will be done to meet the criteria of parameters as per norms of CPCB/ SPCB.</p>	<p>to 0.40 m depth and dry bed only. Mining will not be done near river banks.</p>	
<p><b>Conclusions:</b> Suggested to workers working with prescribed manner only use the dustbin and mobile toilet to prevent disposal of solid waste and waste water in the river and nearby land surface</p>					
5	Biological Environment	<p>No impact anticipated on biological environment due to proposed mining activity as mining activity will be carried out in running dry river bed.</p> <p>Suspended particulates are only source, which has the impact on nearby crops.</p> <p>Pit developed due to mining may be dangerous</p>	<p>1 tractor trip per day will be used for transportation of sand. Protective measures like water spraying on unpaved road, leveling of unpaved road and sand covered after loading will be used to prevent.</p>	<p>Water spraying on haul road and time to time maintenance will be done to avoid dust generation.</p> <p>Greenbelt Development and Bio-Diversity Preservation Plantation activities will be carried out at the bank of the river and along the haul roads. This activity will help for maintaining ecology and environment of the area.</p>	Rs.50,000/- water sprinkling

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
		for animals.			
<p><b>Conclusions:</b> Not any impact is anticipated on nearby fauna and Flora due to proposed mining activity. Suggested to lease adopt the mitigation measures for dust suppression.</p>					
6.	Socio-Economic Environment	Negative impact is not anticipated on socio-economic environment. Positive impact due to proposed mining activity are employment, availability of sand.	Employment will be given to local people for unskilled and skilled labors.	Preference to be given to local people.	
<p><b>Conclusion:</b> Preference given to local people for employment as labor.</p>					
7	Occupational Health & Safety	On site anticipated hazards are health issue due to dust, dehydration, heat expose and rest shed. Accident from spades and heavy boulder.	First aid box to be provided for initial treatment. Temporary shed will be provided. Notice board will be placed at mining site, and guard will be posted in three shifts to prevent any accident.	First aid and sanitary facility provide to workers.	Total Amount: Rs 133200/- Rs 2500/- for First Aid Box Rs 2000/- Personal Protective Equipment Rs 8000/- For Temporary shed Rs.120350/- Mobile Toilet Rs 350/- waste bin
<p><b>Conclusion:</b> Suggested to provided First aid and sanitary facility to workers.</p>					

#	Particulars	Impact	Mitigations Measures	Management Plan	Budget
8.	Waste/ Overburden	No waste will be generated from mining of mineral. Overburden or top soil is absent in the proposed river sand project.	No waste/ overburden will be generated from the river sand mining project.	No waste/ overburden will be generated, thus management plan is not applicable. Domestic waste generated to be collected in dust bins and handed over to the local authority for disposal.	--
<b><u>Conclusion:</u></b> Waste is not anticipated in River sand mining activity as well as top soil and overburden also absent in the proposed river sand project.					

#### **4. FUND PROVISION FOR EMP**

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures. Fund provision for EMP is given in below.

**Table 2: Environmental Management Plan Budget**

<b>S No</b>	<b>Particulars</b>	<b>Amount in Rs</b>
1.	Environment Monitoring (Air, Water, Soil and Noise)	85000
2.	Water Sprinkling	75000
3.	Unpaved/ Haul Road maintenance	55750
4.	Occupational Health & safety	157250
5.	Tarpaulin	20000
6.	Plantation	15000
7.	Security	10000
<b>Total</b>		<b>418000</b>

**APPENDIX VIII  
(See paragraph 6)  
FORM 1 M**

**APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE**

**(I) BASIC INFORMATION**

(i) Name of the Mining Lease site: Mohkhedi Sand Ghat over an extent of 4.90 ha. at Gut No. 117, 118 & 119, Village Mohkhedi, Tehsil Mouda, District- Nagpur, Maharashtra.

(ii) Location / site (GPS Co-ordinates):

Points	Longitude	Latitude
BP-1	21°5'57.24"N	79°26'45.18"E
BP-2	21°5'54.85"N	79°26'47.70"E
BP-3	21°5'59.47"N	79°26'53.46"E
BP-4	21°6'5.32"N	79°26'56.69"E
BP-5	21°6'8.23"N	79°26'53.83"E
BP-6	21°6'4.74"N	79°26'51.92"E
BP-7	21°6'1.15"N	79°26'49.32"E

(iii) Size of the Mining Lease (Hectare): 4.95

(iv) Capacity of Mining Lease (TPA): 12120 Brass

(v) Period of Mining Lease: 01 years

(vi) Expected cost of the Project: INR 15,814,000/

(vii) Contact Information: District Mining Officer, Nagpur

**(II) ENVIRONMENTAL SENSITIVITY**

S. N	ITEMS	DETAILS
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nalla etc.	Kanhan Bridge is 7.23km from sand ghat, North
2.	Distance from infrastructural facilities <ul style="list-style-type: none"> <li>• Railway line</li> <li>• National Highway</li> </ul>	<ul style="list-style-type: none"> <li>• Railway station/Railway line is not present within 2-5km of project site .</li> <li>• AH-46/NH-53 is present at an approx. distance of 5.46 km in North of the sand ghat area.</li> </ul>

	<ul style="list-style-type: none"> <li>State Highway</li> <li>Major District Road</li> <li>Any Other Road</li> <li>Electric transmission line pole or tower</li> <li>Canal or check dam or reservoirs or lake or ponds</li> <li>In-take for drinking water pump house.</li> <li>Intake for Irrigation canal pumps</li> </ul>	<ul style="list-style-type: none"> <li>SH253 at distance of 8.5km towards North West.</li> <li>Bhandara road is present at an approx. distance of 6.12 km in North of the sand ghat area</li> <li>Approach road 66m towards North East which further connects to Bhandara road towards North at distance of 6.12km.</li> <li>Nil</li> <li>Nil</li> <li>Mohkhedi village,1.89km, West</li> <li>Wadhana village,1.06km, North</li> </ul>
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water bodies: this is the case of river sand mining in Kanhan River bed Nag river at distance of 1km towards South of project
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil
6.	Inland, coastal, marine or underground waters	Kanhan River Bed
7.	State, National boundaries	Nil
8.	Routes or facilities used by the public for access to recreation or other tourist, Pilgrim areas	NH-53 is present at an approx. distance of 5.46 km in North of the sand ghat area
9.	Defense installations	Nil
10.	Densely populated or built-up area, distance from nearest human habitation	<ul style="list-style-type: none"> <li>Mohkhedi village,1.89km, West</li> <li>Wadhana village,1.06km, North</li> </ul>
11.	Areas occupied by sensitive man-made land uses(Hospitals, schools, places of worship, community facilities)	<ul style="list-style-type: none"> <li>Mohkhedi village,1.89km, West</li> <li>Wadhana village,1.06km, North</li> <li>Small temple at dis. 2.75 km Southwest</li> </ul>
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Kanhan River (this is the case of river sandmining)
13.	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	The area is not subjected to the pollution or environmental damage.
14.	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)	The mine lease area falls in Seismic Zone II (Least Active), according to the Indian Standard Seismic Zoning Map.
15.	Is proposed mining site located over or near	This is River sand mining project.



	fissure / fracture for ground water recharge	
16.	<p>Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: -</p> <p>(a) The Forest (Conservation) Act, 1980;                  (b) The Wildlife (Protection) Act, 1972;                  (c) The Coastal Regulation Zone Notification, 2011.</p> <p>If yes, details of the same and their status to be given.</p>	No
17.	Forest land involved (hectares)	No forest land involved
18.	<p>Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?</p> <p>(a) Name of the Court                  (b) Case No.                  Orders or directions of the Court, if any, and its relevance with the proposed project.</p>	No litigation pending against the project and/or land in any court

"I hereby give undertaking that the data and information given in the application and enclosures 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.

**Date:** \_\_/12/2021

## कार्यकारी सारांश

रेती उत्खननाच्या पर्यावरणीय व्यवस्थापन आराखडयाचा मसुदा

जिल्हा – नागपूर, महाराष्ट्र राज्य

नागपूर जिल्हयातील प्रस्तावित २८ रेती घाटांच्या पर्यावरणीय  
जनसुनावणीकरिता

प्रकल्प प्रवर्तक

जिल्हा खनिकर्म अधिकारी, जिल्हाधिकारी कार्यालय, नागपूर

पर्यावरण सल्लागार

**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

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## १.० प्रस्तावना

मा. जिल्हाधिकारी नागपूर यांनी रेती/वाळू निर्गमीतीचे धोरण दि.०३.०९.२०१९ अनुसार २८ रेती घाट उत्खननासाठी प्रस्तावित केलेले असून जिल्हा खनिकर्म अधिकारी नागपूर यांना विविध अनुमती घेणेकरिता प्रकल्प प्रवर्तक म्हणून नेमलेले आहे.

सदर २८ रेती घाट तालुकास्तरावर मा. तहसीलदार यांच्या अध्यक्षतेखाली नेमलेल्या व भुवैद्यन्यायिक, म. प्र.नि.म. यांचे प्रतिनिधी, जलसंधारण विभागाचे प्रतिनिधी असलेल्या तालुका तांत्रिक समिती द्वारे ओपन कास्ट पध्दतीने घेले, पावडे यांच्या साहाय्याने उत्खनन करण्याचे प्रस्तावित केलेले आहे.

पर्यावरण अनुमतीसाठी प्रस्तावित २८ रेती घाटांची यादी खालील प्रमाणे आहे.

S. No.	Name of Sand Ghat	Name of Village	Taluka	Nearest Gut. No.	Name of River/ Stream	Dimension of sand Gat in Cum			Are of Sand Ghat in Ha	Sand Proposed for scoping in Brass	Width of approach road	Length of approach Road	No. of workers	No. of Tractors	No. of trees along bank and transportation road	Water requirement in cum/day	EMP cost in Rs.
1	Ghatrohna	Ghatrohna	Parseoni	53 (Part),52,46,45(Part)	Pench	500	60	0.4	3	4240	3-6 m	360	13	4	501	2.44	4,19,100/-
2	Singardip	Singardip	Parseoni	80,81 and 82	Kanhan	550	80	0.3	4.4	4664	3-6 m	250	13	5	480	2.5	3,40,500/-
3	Palora	Palora	Parseoni	43 (Part)	Pench	250	80	0.4	2	2826	3-6 m	260	13	3	378	1.75	2,63,100/-
4	Pipla	Pipla	Parseoni	353 (Part), 354 (Part)	Pench	215	90	0.4	1.93	2734	3-6 m	500	13	2	300	2.2	2,18,500/-
5	Sihora	Sihora	Parseoni	170/1,170/2 (Part)	Kanhan	500	90	0.3	4.5	4770	3-6 m	700	13	5	850	2.5	3,44,500/-
6	Waghoda	Waghoda	Parseoni	127/1 (Part)	Pench	334	120	0.9	4	12746	3-6 m	800	13	7	980	3.1	6,90,200/-
7	Yesamba	Yesamba	Parseoni	207 (Part)	Pench	210	75	0.9	1.57	5008	3-6 m	530	13	4	655	2.3	5,83,900/-
8	Garada	Garada	Parseoni	104(Part)	Pench	400	80	0.7	3.2	7915	3-6 m	720	13	5	840	2.6	7,57,700/-
9	Saholi-A	Saholi	Parseoni	15, 16, 17, 18 & 19 (Part)	Kanhan	500	50	0.8	2.5	7067	3-6 m	370	13	5	585	2.7	3,35,000/-
10	Saholi-B	Saholi	Parseoni	115/2, 112/2, 136/2, 141/2	Kanhan	600	60	1	3.6	12720	3-6 m	800	13	8	920	3.5	6,13,900/-
11	Paradi K	Paradi K	Parseoni	153	Kanhan	450	100	0.8	4.5	12720	3-6 m	750	13	4	890	3.5	5,98,100/-
12	Juni Kamthi	Juni Kamthi	Parseoni	230,240/2(Part)	Kanhan	200	100	0.8	2	5653	3-6 m	680	13	4	799	3	2,18,500/-
13	Riwadi	Riwadi	Saoner	179,180,183,184,&186	Kanhan	450	75	0.4	3.37	4770	3-6 m	900	13	4	1000	3	248500/-
14	Wakodi	Wakodi	Saoner	44 (Part)	Kanhan	500	70	0.4	3.5	4946	3-6 m	580	13	4	760	3	248500/-
15	Ramdongri-B	Ramdongri	Saoner	143 (Part) &144(Part)	Kanhan	400	100	0.3	4	4240	3-6 m	890	13	4	999	3	393950/-
16	Karajghat	Karajghat	Saoner	15(Part)	Kanhan	470	75	0.4	3.52	4982	3-6 m	700	13	3	850	3	390000/-
17	Esapur	Esapur	Saoner	90 (Part),93,94,11	Kanhan	475	80	0.45	3.8	6042	3-6 m	340	13	4	510	3	393950/-



• रेतीघाटांसाठी प्राप्त आवश्यक अनुमती/परवानग्या व गोषवारा.

प्रकल्प प्रवर्तक	जिल्हा खनिकर्म अधिकारी, नागपूर
प्रकल्प स्थिती	नवीन, प्रस्तावित रेती घाट
उत्खनन करावयाचे खनिज	रेती / वाळू
रेतीघाट प्रस्तावित करणारी समिती	मा. तहसीलदार यांच्या अध्यक्षतेखाली नेमलेल्या व भुवैद्यन्यायिक, म.प्र.नि.म. यांचे प्रतिनिधी, जलसंधारण विभागाचे प्रतिनिधी असलेल्या तालुका तांत्रिक समिती
ग्रामपंचायत ना हरकत	ग्रामपंचायतीकडून वाळू निर्गमितीच्या धोरणानुसार प्राप्त
उत्खननाकरिता ठरवून दिलेला कालावधी	दि. १० जून ते ३० सप्टेंबर पर्यंतचा मान्सून कालावधी वगळता जास्तीत जास्त १ वर्ष.

• प्रस्तावित व उत्खनन पध्दत:

रेती उत्खनन टोपले, पावडे द्वारे मजुरांकरवी करण्याचे प्रस्तावित आहे.

अ. मातीचे ढिगारा किंवा मातीचे उत्खनन करता येणार नाही.

ब. रेती उत्खनन टोपले, पावडे द्वारे मजुरांकरवी करण्याचे प्रस्तावित आहे.

क. उचललेली रेती ट्रॅक्टर द्वारे वाहण्याचे प्रस्तावित आहे.

ड. ट्रॅक्टर वगळता कोणतीही अवजड व यांत्रिक मशीनरी उपयोगात आणता येणार नाही.

इ. उत्खननाकरिता ठरवून दिलेला कालावधी हा दि. १०जून ते ३० सप्टेंबर पर्यंतचा मान्सून कालावधी वगळता जास्तीत जास्त १ वर्षाकरिता प्रस्तावित आहे.

## •वायू प्रदूषण उपाय योजना

अ. क्र.	प्रदूषणाचे स्रोत	अपेक्षित परिणाम	व्यवस्थापन योजना
१	ट्रान्सपोर्ट रोड/रेती वहन मार्ग	हवा <u>गुणवत्ता/जमिन</u> रास्ता मजबूती रस्त्याचा —हास	<ul style="list-style-type: none"> <li>• वहन मार्गाचे मजबूती करण</li> <li>• वहन मार्गाची देखभाल</li> <li>• ट्रॅक्टर मध्ये मान्यता क्षमतेनुसार खनिज वहन</li> <li>• उत्खनन कालवाधी दरम्यान हवा दर्जा</li> <li>• उत्खनन कालवाधी दरम्यान हवा दर्जा तपासणी</li> </ul>
२	ट्रक / ट्रॅक्टर यांचे चलन	हवा दर्जा /गुणवत्ता	<ul style="list-style-type: none"> <li>• मान्यता प्राप्त क्षमते पेक्षा ट्रॅक्टर मध्ये खनिज न भरणे.</li> <li>• रेती वाहन करणा—या ट्रॅक्टर ट्रॉलीज टरपोलिन ने वहन दरम्यान झाकणे.</li> <li>• वाहनांना गती नियंत्रक बसविणे.</li> <li>• रेती घाटावर रेती ट्रॅक्टर मध्ये भरताना इंजिन बंद ठेवणे.</li> </ul>
३	रेती घाट व रेती घाट मार्ग	उत्खनन प्रक्रिया	<ul style="list-style-type: none"> <li>• रेतीघाट होलेज मार्गाची वारंवार दुरुस्ती व देखभाल .</li> <li>• कामगारांना डस्ट मास्क देणे.</li> <li>• रेती उत्खनन व वहन दिवसांच करणे.</li> </ul>
४	नदी किना—याचे व्यवस्थापन	नदी किना—याची झीज पूर रेषा व्यवस्थापन	<ul style="list-style-type: none"> <li>• नदी किना—यावर झाडे लावणे.</li> <li>• नदी किना—याच्या उतारावर हिरवळ — ग्रास लावणे.</li> </ul>

१.	धूळ कन श्वसन विषयी व्यवसाय सुरक्षितता, आरोग्य व सेवा योजना	कामगारांची सुरक्षितता व उत्खनन	<ul style="list-style-type: none"> <li>• कामगारांसाठी पय्यवरण पूरक व सुरक्षित वातावरण तयार करणे.</li> <li>• असे वातावरण व उपाययोजना अमल बजावणीसाठी मान्यता प्राप्त निविदाधारक / ठेकेदार उपाययोजना करेल.</li> <li>• कामगारांना वैयक्तिक संरक्षण उपकरणे प्रदान करण्याचे प्रस्तावित आहे.</li> <li>• कामगारांना आवश्यक प्रशिक्षण देण्याचे प्रस्तावित आहे.</li> <li>• प्रथोमपचार पेटी, पिण्या योग्य पाणी, तात्पुरत्या निवार्याची सोय करण्याचे प्रस्तावित.</li> </ul>
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## • व्यवसाय, आरोग्य व सेवा योजना

### • ध्वनी प्रदूषण

- कामगारांना कांन बुचे देण्याचे प्रस्तावित आहे.
- ट्रॅक्टर / ट्रक व्यतिरिक्त कोणत्याही ध्वनी प्रदूषण करणा—या मशीनरी प्रतिबंधीत आहेत.
- ट्रॅक्टर चे इंजिने रेतीघाटावर रेती भरते वेळेस बंद ठेवण्यात येईल.
- कामगारांना व अभ्यंगताना वैयक्तिक संरक्षक उपकरणे देण्यात येईल.



## • वाहतूक व्यवस्थापन

- खनिज वाहतूक करणारे वाहन फॉरेस्ट व महसूल विभागाकडे नोंदणीकृत करणे प्रस्तावित आहे.
- अशा सर्व वाहनाकडे प्रदूषण नियंत्रण प्रमाणपत्र असण्याचे बंधनकारक असेल.
- अशी सर्व वाहने ध्वनी उत्सर्जन व धूळ / इतर उत्सर्जन संबंधी मानक द्वारे उच्च प्रतीच्या देखभाली खाली प्रमाणित असतील.
- असे सर्व वाहनचालक वाहतुकीसंबंधी नियमांचे पालन करण्यास बध्य असतील.
- अशा सर्व वाहनांची गती नियंत्रित केलेली असेल.
- क्षमतेपेक्षा जास्त खनिजाचे वाहन करता येणार नाही.
- खनिज वाहन करणा—या वाहनांचे खनिज टरपोलिन ने झाकण्याचे प्रस्तावित आहे.
- इतर रेती ठेकेदरांसोबत समनव्य साधून रेतीचे वाहन करण्याचे प्रस्तावित आहे जेणेकरून वाहतुकीचा खोळंबा होणार नाही.

## • वृक्षारोपण योजना

- मान्सून दरम्यान दि. १० जून ते ३० सप्टेंबर नदी किना—यावर व वाहन मार्गावर झाडे लावण्याचे प्रस्तावित आहे.
- नीम, पिंपळ, करंज, गुलमोहर अशी स्थानिक झाडे लावण्याचे प्रस्तावित आहे.
- मान्य निविदाधारक/रेती ठेकेदार ह्या पर्यावरण व्यवस्थापन योजनेचे टेबल करा. १ अनुसार दिलेल्या व्यवस्थापन अंदाजानुसार क्रियान्वयन करण्याचे प्रस्तावित आहे.
- मान्य निविदाधारक /रेती ठेकेदार सादर पर्यावरण व्यवस्थापन योजना क्रियान्वयनाचा अनुपालन अहवाल जिल्हा खनिकर्म अधिकारी, तत्सम तहसीलदार यांना सादर करेल.
- जिल्हा खनिकर्म अधिकारी / तत्सम तहसीलदार हा पर्यावरण व्यवस्थापन योजनेच्या क्रियान्वयनाची वेळोवेळी खात्री करतील व मा. जिल्हा अधिकारी यांच्या अध्यक्षतेखाली समितीला अहवाल वाळू निर्गमिती च्या धोरण मध्ये सुचविल्याप्रमाणे सादर करतील.

**Executive Summary on Environment Management Plan**

**For**

**Sand Ghats**

**At**

**Nagpur District, State Maharashtra**

**For**

**Public Hearing for 28 Sand Ghats**

**Project Proponent**

**District Mining Officer, Collector Office, Nagpur**

**Environment Consultant**

**Open Arch Design and Enviro Solutions LLP**



**NABET/EIA/2124/IA0081**

**[openarchdesign@gmail.com](mailto:openarchdesign@gmail.com)**

**Contact no. :9004778386**

## **1. Introduction:**

District Collector, Nagpur intends to auction sand ghats and appointed District Mining Officer, Nagpur as project proponent as per Sand Mining Guidelines dated 03<sup>rd</sup> September 2019. Total 28 sand ghats are identified by Taluka level Technical committee chaired by Tehsildar and Dy. Engineer, Irrigation and Junior Geologist, Directorate of Geology and Mining, Junior Geologist G.S.DA., representative of Maharashtra Pollution Control Board for scoping of sand by manual method.

List of Sand ghats proposed for auction prior Environment Clearance are as given below in Table no. 1.0:

### **Table 1.0 Details of Sand Ghats**

S. No.	Name of Sand Ghat	Name of Village	Taluka	Nearest Gut. No.	Name of River/ Stream	Dimension of sand Gat in Cum			Are of Sand Ghat in Ha	Sand Proposed for scopin g in Brass	Width of app roc h road	Lengt h of app roc h Road	No. of work ers	No. of Tracto res	No. of trees along bank and trasport ion road	Water require ment in cum/da y	EMP cost in Rs.
1	Ghatrohna	Ghatrohna	Parseo ni	53 (Part),52, 46, 45(Part)	Pench	500	60	0.4	3	4240	3-6 m	360	13	4	501	2.44	4,19,100/-
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6	Waghoda	Waghoda	Parseo ni	127/1 (Part)	Pench	334	120	0.9	4	12746	3-6 m	800	13	7	980	3.1	6,90,200/-
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10	Saholi-B	Saholi	Parseo ni	115/2, 112/2, 136/2, 141/2	Kanhan	600	60	1	3.6	12720	3-6 m	800	13	8	920	3.5	6,13,900/-
11	Paradi K	Paradi K	Parseo ni	153	Kanhan	450	100	0.8	4.5	12720	3-6 m	750	13	4	890	3.5	5,98,100/-
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17	Esapur	Esapur	Saoner	90 (Part),93,94,115&116	Kanhan	475	80	0.45	3.8	6042	3-6 m	340	13	4	510	3	393950/-
18	Rohana	Rohana	Saoner	168, 3 (Part), 7B (Part)	Kanhan	350	60	0.5	2.1	3710	3-6 m	430	13	4	620	3	2,18,500/-
19	Bawangaon -A	Bawangaon	Saoner	252&253	Kanhan	243	80	0.4	1.94	2747	3-6 m	320	13	3	460	3	2,18,500/-
20	Gosewadi-A	Gosewadi	Saoner	285,286 & 287 (Part)	Kanhan	420	100	0.5	4.2	7420	3-6 m	370	13	5	480	3.4	3,28,500/-
21	Bawangaon -B	Bawangaon -B	Saoner	20,32,04,208	Kanhan	450	60	0.6	2.7	5724	3-6 m	760	13	4	535	2.4	3,52,500/-
22	Chiknaghat	Chiknaghat	Mouda	543/1,542,541,543/2	Kanhan	540	90	0.6	4.86	10303	3-6 m	690	13	3	890	3	418000/-
23	Kiranpur	Kiranpur	Mouda	103, 104, 105, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 4 & 5	Kanhan	620	80	0.8	4.95	14021	3-6 m	680	13	4	810	3	418000/-
24	Mohkhedi	Mohkhedi	Mouda	117, 118 & 119	Kanhan	490	100	0.7	4.9	12120	3-6 m	350	13	3	480	3	418000/-
25	Unagaon	Unagaon	Kamptee	212,217,218,219,222,211 (Part)	Kanhan	650	74	0.3	4.81	5098	3-6 m	300	13	3	520	3	418000/-
26	Chikna A	Chikna A	Kamptee	8,9/1,9/2,10/1,10/2,11,12	Kanhan	450	50	0.5	2.25	3975	3-6 m	980	13	4	900	2.5	3,38,200/-

S. No.	Name of Sand Ghat	Name of Village	Taluka	Nearest Gut. No.	Name of River/ Stream	Dimension of sand Gat in Cum			Area of Sand Ghat in Ha	Sand Proposed for scoping in Brass	Width of approach road	Length of approach Road	No. of workers	No. of Tractors	No. of trees along bank and transportation road	Water requirement in cum/day	EMP cost in Rs.
				(Part)													
27	Neri Ghat	Neri Ghat	Kamptee	217/2/3, 219, 220, 221/1/2, 223, 224/1 (Part)	Kanhan	565	86	1.5	4.85	25754	3-6 m	450	13	3	790	3	418000/-
28	Chichghat	Chichghat	Kuhi	43	Kanhan	300	100	0.5	3	5300	3-6 m	230	13	3	420	3	248500/-

## 2. Status of Statuary Clearances for Sand Ghat

The status of Statuary Clearances for Sand Ghat is given below in Table no .2.0

**Table 2.0: Status of Statuary Clearances for Sand Ghat**

S. No	Particulars	Details
1	Name and address of Allottee	District Mining Officer, Nagpur/Successful Bidder Nagpur District, Nagpur.
2	Status of lease	New, Individual /Project Proponent/Successful Bidder for auction of sand ghat by District Collector, Nagpur
3	Mineral for which lessee intends to mine	Ordinary Sand for Construction purpose
4	Name and Address of Prospecting Agency	Taluka Level Technical Committee chaired by Tehsildar and Dy. Engineer Irrigation, Junior Geologist, Directorate of Geology and Mining, Junior Geologist G.S.DA., representative of Maharashtra Pollution Control Board.
5	Gram Panchayat NOC	Received from Gramsabha as per Public consultation procedure defined in Sand Mining Guidelines of Maharashtra State dated 03 <sup>rd</sup> September 2019.
6	Plan Period for activity	Upto one year from the date of allocation of Sand ghat or upto scoping of Allotted /Permitted quantity mined out which ever is earlier excluding stipulated monsoon period between 10 June to 30 September.

## 3. Method Of Mining

The mining will be manual opencast mining method of scoping using simple tool like spade/pawada.

- a. Overburden/Soil Removal  
No Overburden/Soil is anticipated
- b. Scooping of Sand/Loading  
The ordinary sand will be loaded manually by labours
- c. Hauling  
Ordinary sand is transported through the tractors/trucks with permissible quantity.
- d. No machinery will be utilized.
- e. Period of scooping of sand will be for one year excluding monsoon period of 10<sup>th</sup> June - 30<sup>th</sup> September or as defined by District Collector.
- f. About 13 labours per ghat will be required
- g. The site services will be provided by allottee/Successful Bidder, Office, First Aid and Rest Shelter will be temporarily constructed 20 m away from the bank of river.
- h. Applied area for sand extraction is covered by dark basalt and which has been derived /transported from basalt of surrounding flat and well tilled area. The sand of the applied area is found to be underlain by dark basalt of river bed.

## 4. Anticipated Environment Impacts and Management Plan

- **Air**

A summary of Air Pollution control measures is given below:

Sr. No	Impact Sources	Impact	Control Measures
1.	Transport Road	On Air Quality On Land River bed stability River bed Degradation	<ul style="list-style-type: none"> <li>• Compaction, gradation and drainage on both sides &amp; green belt development.</li> <li>• Proper Maintenance</li> <li>• Regular water spraying</li> <li>• Avoiding overfilling of tractor and consequent spillage on the roads.</li> <li>• Air Quality will be monitoring at impacted village</li> </ul>
2.	Truck/Tractor movement	Air quality	<ul style="list-style-type: none"> <li>• No overloading of trucks</li> <li>• And carrying trucks will be effectively covered by tarpaulin to avoid escape of fines to the atmosphere.</li> <li>• Enforcing speed limit</li> <li>• Regular monitoring of the exhaust fumes</li> <li>• No Engine of tractor/truck will be kept on during the filing</li> <li>• If possible, entry be restricted to river bed.</li> </ul>
3.	Ramp and Sand Reach	Mining operations	<ul style="list-style-type: none"> <li>• Regular ramp inspection and ramp maintenance</li> <li>• Provision of dusk masks</li> <li>• Mining will be done during day time between fixed hours only.</li> </ul>
4.	Bank Management	Bank Erosion/Flood Plain management	<ul style="list-style-type: none"> <li>• Green belt along bank</li> <li>• Plantation of wide leaf tall trees on bank and grass along slanting portion of bank.</li> </ul>

• **Occupational Health and Services**

A summary of Occupational Health and Services is given below:

Sr. No	Impact Sources	Impact	Control Measures
a.	Occupational Health and Services	Safety of workers and Mining Operations	<ul style="list-style-type: none"> <li>• Providing a working environment that is conducted to safety &amp; health</li> <li>• The management of occupational safety and health is prime responsibility of mine owner.</li> <li>• Provision of necessary personal protective equipments.</li> <li>• Ensuring employees at all levels receive appropriate training and are competent to carry out their duties and responsibilities</li> <li>• Provision of First aid and drinking</li> </ul>



Sr. No	Impact Sources	Impact	Control Measures
			water, temporary rest room.

- **Noise**

Noise control measures will be provided in the proposed crushing and screening plant.

- In addition, personnel working near high noise generating sources will be provided with ear muffs.
- No equipments generating, Noise excluding tractor/trucks will be permitted
- No Tractor engine will be kept idle.
- Conduct periodic audiometric tests for employees working close to high noise generating areas such as compressors, loading and unloading sections etc.
- Provision of PPE will be made and their proper usage will be ensured for hearing protection of the workers as well as visitors.

- **Traffic Management**

- The mineral transporting vehicles will be registered with Forest Department/Revenue Department and only registered vehicles will be used for mineral transport
- The PUC certificate for exhaust emissions for all the transport vehicles will be made mandatory.
- All the vehicles will be properly maintained to control emissions and noise generation
- Drivers of all vehicles will strictly follow traffic rules
- Speed of mineral transport vehicles will be regulated.
- Overloading of the tractors will not be allowed.
- The mineral transporting tractors vehicles will be properly covered with tarpaulin to avoid fugitive emissions
- Batch transport system will be adopted in consultation with other sand ghat operations in the area to avoid excess traffic at time on road.
- Mineral Transportation will be done only during day time
- Strict action will be taken against any driver, who do not comply with traffic rules.

- **Plantation Programme**

- It is proposed to plant local species during monsoon period along the bank of river and village roads.
- List of species proposed for greenbelt development plantation are Neem, Peepal, Banyan tree

Successful Bidder/Sand ghat allottee will submit compliance to terms of conditions stipulated in the prior Environment Clearance to the District Mining officer and respective Tehsildars with the expense made on implementation of EMP.

District Mining officer/Respective Tehsildar will monitor the implementation of approved Environment Management Plan along with District Level Committee headed by District Collector as stipulated in Sand Mining rules 2019.

