# **Executive Summary on Environment Management Plan**

### For

## **Sand Ghats**

At

## Nagpur District, State Maharasthra

For

**Public Hearing for 28 Sand Ghats** 

## **Project Proponent**

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

# Environment Consultant Open Arch Design and Enviro Solutions LLP



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### 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.<br>No. | Name of<br>Sand Ghat | Name<br>of<br>Villag<br>e | Taluk<br>a   | Nearest Gut.<br>No.           | Name<br>of<br>River/<br>Stream |     | nsion o<br>Gat in C |     | Are<br>of<br>San<br>d<br>Gha<br>t in<br>Ha | Sand<br>Propos<br>ed for<br>scopin<br>g in<br>Brass | Wi<br>dth<br>of<br>app<br>roc<br>h<br>roa<br>d | Lengt<br>h of<br>appro<br>ch<br>Road | No. of<br>work<br>ers | No. of<br>Tracto<br>res | No. of<br>trees<br>along<br>bank<br>and<br>trasport<br>ion road | Water<br>require<br>ment in<br>cum/da<br>y | EMP cost<br>in Rs. |
|-----------|----------------------|---------------------------|--------------|-------------------------------|--------------------------------|-----|---------------------|-----|--|---|--|--------------------------------------|-----------------------|-------------------------|---|--|--------------------|
| 1         | Ghatrohna            | Ghatr<br>ohna             | Parseo<br>ni | 53 (Part),52,<br>46, 45(Part) | Pench                          | 500 | 60                  | 0.4 | 3  | 4240  | 3-6<br>m                                       | 360                                  | 13                    | 4                       | 501   | 2.44                                       | 4,19,100/<br>-     |
| 2         | Singardip            | Singar<br>dip             | Parseo<br>ni | 80,81 and 82                  | Kanhan                         | 550 | 80                  | 0.3 | 4.4  | 4664  | 3-6<br>m                                       | 250                                  | 13                    | 5                       | 480   | 2.5  | 3,40,500/<br>-     |
| 3         | Palora               | Palor<br>a                | Parseo<br>ni | 43 (Part)                     | Pench                          | 250 | 80                  | 0.4 | 2  | 2826  | 3-6<br>m                                       | 260                                  | 13                    | 3                       | 378   | 1.75                                       | 2,63,100/          |
| 4         | Pipla                | Pipla                     | Parseo<br>ni | 353 (Part),<br>354 (Part)     | Pench                          | 215 | 90                  | 0.4 | 1.93                                       | 2734  | 3-6<br>m                                       | 500                                  | 13                    | 2                       | 300   | 2.2  | 2,18,500/          |
| 5         | Sihora               | Sihor<br>a                | Parseo<br>ni | 170/1,170/2<br>(Part)         | Kanhan                         | 500 | 90                  | 0.3 | 4.5  | 4770  | 3-6<br>m                                       | 700                                  | 13                    | 5                       | 850   | 2.5  | 3,44,500/<br>-     |
| 6         | Waghoda              | Wagh<br>oda               | Parseo<br>ni | 127/1 (Part)                  | Pench                          | 334 | 120                 | 0.9 | 4  | 12746   | 3-6<br>m                                       | 800                                  | 13                    | 7                       | 980   | 3.1  | 6,90,200/<br>-     |
| 7         | Yesamba              | Yesa<br>mba               | Parseo<br>ni | 207 (Part)                    | Pench                          | 210 | 75                  | 0.9 | 1.57                                       | 5008  | 3-6<br>m                                       | 530                                  | 13                    | 4                       | 655   | 2.3  | 5,83,900/<br>-     |
| 8         | Garada               | Garad                     | Parseo<br>ni | 104(Part)                     | Pench                          | 400 | 80                  | 0.7 | 3.2  | 7915  | 3-6<br>m                                       | 720                                  | 13                    | 5                       | 840   | 2.6  | 7,57,700/          |
| 9         | Saholi-A             | Saholi                    | Parseo<br>ni | 15, 16, 17, 18<br>& 19 (Part) | Kanhan                         | 500 | 50                  | 0.8 | 2.5  | 7067  | 3-6<br>m                                       | 370                                  | 13                    | 5                       | 585   | 2.7  | 3,35,000/          |
| 10        | Saholi-B             | Saholi                    | Parseo<br>ni | 115/2, 112/2,<br>136/2, 141/2 | Kanhan                         | 600 | 60                  | 1   | 3.6  | 12720   | 3-6<br>m                                       | 800                                  | 13                    | 8                       | 920   | 3.5  | 6,13,900/          |
| 11        | Paradi K             | Parad<br>i K              | Parseo<br>ni | 153                           | Kanhan                         | 450 | 100                 | 0.8 | 4.5  | 12720   | 3-6<br>m                                       | 750                                  | 13                    | 4                       | 890   | 3.5  | 5,98,100/          |
| 12        | Juni<br>Kamthi       | Juni<br>Kamt<br>hi        | Parseo<br>ni | 230,240/2(Pa<br>rt            | Kanhan                         | 200 | 100                 | 0.8 | 2  | 5653  | 3-6<br>m                                       | 680                                  | 13                    | 4                       | 799   | 3.5  | 2,18,500/<br>-     |
| 13        | Riwadi               | Riwad<br>i                | Saoner       | 179,180,183,1<br>84,&186      | Kanhan                         | 450 | 75                  | 0.4 | 3.37                                       | 4770  | 3-6<br>m                                       | 900                                  | 13                    | 4                       | 1000  | 3  | 248500/-           |
| 14        | Wakodi               | Wako<br>di                | Saoner       | 44 (Part)                     | Kanhan                         | 500 | 70                  | 0.4 | 3.5  | 4946  | 3-6<br>m                                       | 580                                  | 13                    | 4                       | 760   | 3  | 248500/-           |

# Executive Summary on Environment Management plan of Nagpur Sand Ghats, Maharashtra

Environmental Management Plan

| S.<br>No. | Name of<br>Sand Ghat | Name<br>of<br>Villag<br>e | Taluk<br>a  | Nearest Gut.<br>No.  | Name<br>of<br>River/<br>Stream | -   | nsion o<br>Gat in ( |      | Are<br>of<br>San<br>d<br>Gha<br>t in<br>Ha | Sand<br>Propos<br>ed for<br>scopin<br>g in<br>Brass | Wi<br>dth<br>of<br>app<br>roc<br>h<br>roa<br>d | Lengt<br>h of<br>appro<br>ch<br>Road | No. of<br>work<br>ers | No. of<br>Tracto<br>res | No. of<br>trees<br>along<br>bank<br>and<br>trasport<br>ion road | Water<br>require<br>ment in<br>cum/da<br>y | EMP cost<br>in Rs. |
|-----------|----------------------|---------------------------|-------------|--|--------------------------------|-----|---------------------|------|--|---|--|--------------------------------------|-----------------------|-------------------------|---|--|--------------------|
| 15        | Ramdongri<br>-B      | Ramd<br>ongri             | Saoner      | 143 (Part)<br>&144(Part)   | Kanhan                         | 400 | 100                 | 0.3  | 4  | 4240  | 3-6<br>m                                       | 890                                  | 13                    | 4                       | 999   | 3  | 393950/-           |
| 16        | Karajghat            | Karaj<br>ghat             | Saoner      | 15(Part)   | Kanhan                         | 470 | 75                  | 0.4  | 3.52                                       | 4982  | 3-6<br>m                                       | 700                                  | 13                    | 3                       | 850   | 3  | 390000/-           |
| 17        | Esapur               | Esapu<br>r                | Saoner      | 90<br>(Part),93,94,1<br>15&116   | Kanhan                         | 475 | 80                  | 0.45 | 3.8  | 6042  | 3-6<br>m                                       | 340                                  | 13                    | 4                       | 510   | 3  | 393950/-           |
| 18        | Rohana               | Roha<br>na                | Saoner      | 168, 3 (Part),<br>7B (Part)  | Kanhan                         | 350 | 60                  | 0.5  | 2.1  | 3710  | 3-6<br>m                                       | 430                                  | 13                    | 4                       | 620   | 3  | 2,18,500/          |
| 19        | Bawangaon<br>-A      | Bawa<br>ngaon             | Saoner      | 252&253  | Kanhan                         | 243 | 80                  | 0.4  | 1.94                                       | 2747  | 3-6<br>m                                       | 320                                  | 13                    | 3                       | 460   | 3  | 2,18,500/          |
| 20        | Gosewadi-<br>A       | Gose<br>wadi              | Saoner      | 285,286 &<br>287 (Part)  | Kanhan                         | 420 | 100                 | 0.5  | 4.2  | 7420  | 3-6<br>m                                       | 370                                  | 13                    | 5                       | 480   | 3.4  | 3,28,500/<br>-     |
| 21        | Bawangaon<br>-B      | Bawa<br>ngaon<br>-B       | Saoner      | 20,32,04,208   | Kanhan                         | 450 | 60                  | 0.6  | 2.7  | 5724  | 3-6<br>m                                       | 760                                  | 13                    | 4                       | 535   | 2.4  | 3,52,500/<br>-     |
| 22        | Chiknaghat           | Chikn<br>aghat            | Mouda       | 543/1,542,54<br>1,543/2  | Kanhan                         | 540 | 90                  | 0.6  | 4.86                                       | 10303   | 3-6<br>m                                       | 690                                  | 13                    | 3                       | 890   | 3  | 418000/-           |
| 23        | Kiranpur             | Kiran<br>pur              | Mouda       | 103, 104, 105,<br>107, 109, 110,<br>111, 113, 115,<br>116, 117, 118,<br>119, 4 & 5 | Kanhan                         | 620 | 80                  | 0.8  | 4.95                                       | 14021   | 3-6<br>m                                       | 680                                  | 13                    | 4                       | 810   | 3  | 418000/-           |
| 24        | Mohkhedi             | Mohk<br>hedi              | Mouda       | 117, 118 &<br>119  | Kanhan                         | 490 | 100                 | 0.7  | 4.9  | 12120   | 3-6<br>m                                       | 350                                  | 13                    | 3                       | 480   | 3  | 418000/-           |
| 25        | Unagaon              | Unaga<br>on               | Kampt<br>ee | 212,217,218,2<br>19,222,211<br>(Part)  | Kanhan                         | 650 | 74                  | 0.3  | 4.81                                       | 5098  | 3-6<br>m                                       | 300                                  | 13                    | 3                       | 520   | 3  | 418000/-           |
| 26        | Chikna A             | Chikn<br>a A              | Kampt<br>ee | 8,9/1,9/2,10/<br>1,10/2,11,12  | Kanhan                         | 450 | 50                  | 0.5  | 2.25                                       | 3975  | 3-6<br>m                                       | 980                                  | 13                    | 4                       | 900   | 2.5  | 3,38,200/          |

Executive Summary on Environment Management plan of Nagpur Sand Ghats, Maharashtra

Environmental Management Plan

| S.<br>No. | Name of<br>Sand Ghat | Name<br>of<br>Villag<br>e | Taluk<br>a  | Nearest Gut.<br>No.                                    | Name<br>of<br>River/<br>Stream |     | nsion o<br>Gat in C |     | Are<br>of<br>San<br>d<br>Gha<br>t in<br>Ha | Sand<br>Propos<br>ed for<br>scopin<br>g in<br>Brass | Wi<br>dth<br>of<br>app<br>roc<br>h<br>roa<br>d | Lengt<br>h of<br>appro<br>ch<br>Road | No. of<br>work<br>ers | No. of<br>Tracto<br>res | No. of<br>trees<br>along<br>bank<br>and<br>trasport<br>ion road | Water<br>require<br>ment in<br>cum/da<br>y | EMP cost<br>in Rs. |
|-----------|----------------------|---------------------------|-------------|--|--------------------------------|-----|---------------------|-----|--|---|--|--------------------------------------|-----------------------|-------------------------|---|--|--------------------|
|           |                      |                           |             | (Part)   |                                |     |                     |     |  |   |  |                                      |                       |                         |   |  |                    |
| 27        | Neri Ghat            | Neri<br>Ghat              | Kampt<br>ee | 217/2/3, 219,<br>220, 221/1/2,<br>223, 224/1<br>(Part) | Kanhan                         | 565 | 86                  | 1.5 | 4.85                                       | 25754   | 3-6<br>m                                       | 450                                  | 13                    | 3                       | 790   | 3  | 418000/-           |
| 28        | Chichghat            | Chich<br>ghat             | Kuhi        | 43   | Kanhan                         | 300 | 100                 | 0.5 | 3  | 5300  | 3-6<br>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

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

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

### 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.<br>No | Impact Sources            | Impact   | Control Measures   |
|-----------|---------------------------|--|--|
| 1.        | Transport Road            | On Air Quality<br>On Land<br>River bed stability<br>River bed<br>Degradation | <ul> <li>Compaction, gradation and drainage<br/>on both sides &amp; green belt<br/>development.</li> <li>Proper Maintenance</li> <li>Regular water spraying</li> <li>Avoding overfilling of tractor and<br/>consequent spillage on the roads.</li> <li>Air Quality will be monitoring at<br/>impacted village</li> </ul>   |
| 2.        | Truck/Tractor<br>movement | Air quality  | <ul> <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<br>Reach    | Mining operations  | <ul> <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<br>Management        | Bank<br>Erosion/Flood<br>Plain<br>management                                 | <ul> <li>Green belt along bank</li> <li>Plantation of wide leaf tail trees on<br/>bank and grass along slanting portion<br/>of bank.</li> </ul>  |

### • Occupational Health and Services

A summary of Occupational Health and Services is given below:

| Sr.<br>No | Impact Sources                         | Impact  | Control Measures  |
|-----------|--|---|---|
| a.        | Occupational<br>Health and<br>Services | Safety of workers<br>and Mining<br>Operations | <ul> <li>Providing a working environment that<br/>is conducted to safety &amp;health</li> <li>The management of occupational<br/>safety and health is prime<br/>responsibility of mine owner.</li> <li>Provision of necessary personal<br/>protective equipments.</li> <li>Ensuring employees at all levels<br/>receive appropriate training and are<br/>competent to carry out their duties<br/>and responsibilities</li> <li>Provision of First aid and drinking</li> </ul> |

| Sr.<br>No | Impact Sources | Impact | Control Measures            |
|-----------|----------------|--------|-----------------------------|
|           |                |        | water, temporary rest room. |

### • Noise

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

- a. In addition, personnel working near high noise generating sources will be provided with ear muffs.
- b. No equipments generating, Noise excluding tractor/trucks will be permitted
- c. No Tractor engine will be kept idle.
- d. Conduct periodic audiometric tests for employees working close to high noise generating areas such as compressors, loading and unloading sections etc.
- e. 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

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

### • Plantation Programme

- k. It is proposed to plant local species during monsoon period along the bank of river and village roads.
- l. 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.