

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

**O.A. NO. 199 of 2021 (SZ)**

**IN THE MATTER OF:**

Sri. Shankar Narayanan Bala Krishnan,  
Telangana and Ors

...Applicant(s)

Versus

State of Telangana and Ors

...Respondents(s)

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**Place: Hyderabad**

**Date: 25.08.2022**

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

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Sri. Shankar Narayanan Bala Krishnan,  
Telangana and Ors

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**ADDITIONAL REPORT FILED ON BEHALF OF RESPONDENT NO.6**

I, D.S. Lokesh Kumar, S/o. Sri. Somaraju, aged about 43 years, Occ: Commissioner, Greater Hyderabad Municipal Corporation (GHMC), R/o. Hyderabad, do hereby solemnly swear and state on oath as follows:

It is respectfully submitted that,

1. I am working as Commissioner of Greater Hyderabad Municipal Corporation (GHMC), Hyderabad. As such, I am well acquainted with the facts of the case. Further, I am deposing this report in addition to the report filed by GHMC dated 29.03.2022 and in view of the adjournment orders dated: 04.05.2022 of the Hon'ble National Green Tribunal, South Zone in OA No. 199 of 2021 based on the records available with the Respondent Corporation.

**Biomining and Bio-remediation of the Legacy Dumpsite at Jawaharnagar**

2. In continuation to the advice of the Member Secretary, CPCB and Chairman, CPCB during discussion with GHMC delegation that, GHMC may seek the advice of experts from reputed technical institutions like IIT as there is no technical expertise available to offer from CPCB if GHMC would like to take up biomining, of capped Legacy Dumpsite, a letter was communicated (**Copy attached as Annexure R1**) advising to get technical guidance from other Municipal Corporations which have successfully implemented bio-mining work in legacy dump site.

  
Commissioner,  
Greater Hyderabad Municipal Corporation

3. Further, as per the tender schedule for global tender inviting Request for Proposal (RFP) for the work of "*Disposal of Legacy Waste from scientifically capped Jawaharnagar legacy dumpsite through Bio-mining and Bioremediation for land reclamation, resource recovery and suitable disposal of residual solid wastes as per SWM Rules 2016*", the pre-bid meeting was held on 12.04.2022 at 11.30 (IST) and the last date for submission of queries was 16.04.2022 @ 14.00 (IST). Pre-bid meeting was attended by 4 no's of prospective bidders (**Copy of attendance sheet attached as Annexure R2**) and 3 other bidders have submitted queries through mail. Based on the pre bid requests, along with relaxation of certain other conditions, the last date for submission of the bids was extended from 13.05.2022 to 13.07.2022 duly considering the critical nature of the project. The copy of the reply to pre-bid queries and corrigendum to the RFP document as uploaded in e-procurement portal are **attached as Annexure R3**.
4. Further, as per the advice of CPCB, on enquiring in reputed institutions, Dr. D.N. Singh who is the D.L. Shah Chair Professor for Innovation in Department of Civil Engineering, Indian Institute of Technology, Bombay at Mumbai was found to have done good research in Solid Waste Management related issues including dumpsite remediation etc and was requested to assist & guide GHMC in taking up bio-mining of capped legacy dumpsite. After visiting Jawaharnagar site along with his team on 15.04.2022 for a preliminary understanding, the professor has confirmed that IIT Bombay can take up the study of capped legacy dumpsite and assess it's suitability and make suggestions readiness for taking up Biomining scientifically.
5. Subsequently, a letter was addressed to Dr. D. N. Singh, IIT Bombay (**Copy attached as Annexure R4**) to assist GHMC in the methodology to be adopted for bio-mining of the already capped legacy waste dumpsite of GHMC at Jawaharnagar and guiding GHMC in the technical evaluation of the bids received in response to the RFP tender floated by GHMC. The professor, while accepting the same has requested certain data from GHMC regarding the capped legacy waste.
6. In response to the data submitted by GHMC, Dr. D. N Singh has submitted his proposal for "providing technical advisory services in the

bid process for biomining of capped legacy dumpsite of GHMC at Jawaharnagar including assessment studies on suitability for Bio-mining by retrieval and characterization of Decomposed Municipal Solid Waste" **(Copy attached as Annexure R5).**

7. GHMC has accepted the proposal of Dr. D. N. Singh, IIT Bombay and Letter of Acceptance was issued for utilizing his technical advisory services for 15 months **(Copy attached as Annexure R6).**
8. On 07.07.2022, a team IIT Bombay visited the Jawaharnagar capped legacy dumpsite for conducting preliminary survey to take up geophysical investigations (Multichannel Analysis of Surface Waves (MASW) and Electrical Resistivity Tomography (ERT)) on the dumpsite at different locations to understand the sub-surface features through geophysical investigations, before conducting sample extraction. A preliminary report was submitted by IIT Bombay regarding the same on 12.07.2022 **(Copy attached as Annexure R7).** In order to comply with the following direction of NGT, "*Disposal of Legacy Waste from scientifically capped Jawaharnagar legacy dumpsite through Bio-mining and Bioremediation for land reclamation, resource recovery and suitable disposal of residual solid wastes as per SWM Rules 2016*", the tenders were called and as per bid schedule on the due date i.e., 13.07.2022 no bidders have participated **(Copy attached as Annexure R8)** and no tenders received. In this connection it is to submit that, in view of a request during the pre-bid meeting to share any study already done on capped dumpsite as there are no guidelines available for bio-mining of a capped dumpsite, GHMC has engaged technical Expertise of IIT, Bombay to study the capped dumpsite and submit the report and also made a member in the tender evaluation committee. It is humbly submitted that GHMC shall reissue the tender subject to the report on Jawaharnagar Capped Dumpsite of IIT Bombay.
9. Also, as advised by CPCB to get technical guidance from other Municipal Corporations which have successfully implemented bio-mining work in legacy waste dump site, a letter was addressed to Indore Municipal Corporation **(Copy attached as Annexure R9)** requesting to advise on the methodology adopted by it for biomining of capped legacy waste, if any, in view of many challenges involved in Bio-mining of capped legacy dumpsite vis-a-vis Bio-mining of open

legacy dumpsites and in view of Indore Municipal Corporation being considered as one of the best performing ULB in Solid Waste Management. No reply was received yet from Indore Municipal Corporation as on date.

**Alternative site at Pyaranagar and Dundigal for scientific disposal of MSW**

10. The Ministry of Environment, Forest & Climate Change (MoEFCC), GoI has accorded in-principle approval **(Stage-I)** under section '2' of Forest (Conservation) Act, 1980 for diversion of 0.6228 ha of forest land for laying approach road, at Nallavelly(V), Nallavelly RF, Sangareddy (D) **(Copy attached – Annexure R10)**.
11. Subsequently, a letter **(Copy attached as Annexure R11)** was addressed to M/s.Hyderabad Integrated MSW Ltd., the Concessionaire of the Integrated Municipal Solid Waste Management Project of GHMC permitting construction of treatment and disposal facility at Pyaranagar including laying of approach road in the above said forest land of 0.6228 Ha.
12. A Demand notice **(Copy attached as Annexure R12)** issued by the District Forest Officer, Sangareddy (D), Telangana requesting GHMC to pay an amount of Rs.32,90,192/- towards Net Present Value (NPV) to be remitted through E-payment portal of MoEFCC and Rs.47,35,479/- to the District Forest Officer, Sangareddy towards expenditure like boundary pillars big & small. In response, the Cheque for Rs.47,35,479/- to the District Forest Officer, Sangareddy (D) was submitted vide letter dated 08.07.2022 **(Copy attached as Annexure R13)** and the payment to MoEFCC is under process of uploading & paying through Parivesh Portal of MoEFCC.
13. The process of handing over of approach road land from the revenue officials is in progress along with compliance to other conditions included in the in-principal approval accorded by the MoEFCC. The Treatment & Disposal facility is expected to be completed in (18) months.
14. GHMC is also establishing an alternative MSW processing facility with Waste to Energy (WtE) plant of 14.5 MW capacity at Dundigal (V),

  
**Commissioner,**  
 Greater Hyderabad Municipal Corporation

Commissioner,  
 Greater Hyderabad Municipal Corporation

Quthbullapur (M), MedchalMalkajgiri (D), Telangana through the Concessionaire M/s.Hyderabad Integrated MSW Ltd. This facility shall consume about 1,000 metric tons of RDF reducing burden on Jawaharnagar site.At present, the construction works are in good progress and the plant is expected to come into operation by March 2023. **(Photographs attached as Annexure R 14).**

### **Submission & Prayer**

That in light of the above facts and circumstances, it is humbly prayed that this Hon'ble Tribunal may be pleased to:

- a. Consider the efforts of GHMC in calling tenders for Biomining of capped legacy dumpsite at Jawaharnagar in compliance of the orders of the Hon'ble NGT, Principal Bench dated 14.02.2020 in OA No. 606 of 2018 immediately after the appeal filed by GHMC was dismissed by the Hon'ble Supreme Court on 31.01.2022 in Dairy No.8943/2021 and reply from CPCB dated 25.03.2022 on the advisory sought by GHMC vide letter dated 18.02.2022 as satisfactory and not to impose any Environmental Compensation on GHMC since the capped legacy dumpsite is not contributing to any environment pollution as the entire landfill gases are being harnessed for generation of CBG and efforts are being made for reducing surface and ground water pollution through a dedicated project for comprehensive treatment of legacy leachate with Rs.251.01 crore.
- b. Permit the Respondent to file additional report/ affidavit, if this Hon'ble Tribunal deemed necessary any further information regarding present matter.

For the aforesaid facts and circumstances, it is therefore prayed that this Hon'ble Tribunal may be pleased to Close/ Dismiss OA No. 199 of 2021 and pass such other order or orders as this Hon'ble Tribunal deems fit and proper in the circumstances of the case and interest of Justice.

Sworn and signed on this the  
25<sup>th</sup> Day of Aug, 2022 at Hyderabad

  
DEPONENT  
Commissioner,  
Greater Hyderabad Municipal Corporation.

Before me  
Attestor

**VERIFICATION**

I, D.S. Lokesh Kumar, S/o. Sri. Somaraju, aged about 43 years, Occ: Commissioner, Greater Hyderabad Municipal Corporation (GHMC), R/o. Hyderabad, do hereby declare that the contents made in the above paragraphs are true and correct to the best of my knowledge and based on records available with Respondent Corporation and I believe the same to be true and correct. Hence verified on this day of 25<sup>th</sup> Aug, 2022.

ADVOCATE



DEPONENT

Commissioner, 7/14  
Greater Hyderabad Municipal Corporation.

Commissioner,  
Greater Hyderabad Municipal Corporation.



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

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CP-99/143/2021-UPC-II-HO-CPCB-HO

Date: 24.03.2022

To,  
The Commissioner,  
Greater Hyderabad Municipal Corporation  
1<sup>st</sup> Floor, CC Complex  
Tankbund Road  
Hyderabad - 500063

**Subject: Request to depute the technical experts for advising and guiding GHMC regarding Jawahar Nagar Dump Site**

**Reference: your email dated 21.03.2022 and letter dated 18.02.2022**

Sir,

With reference to your cited mail and the letter, it is to inform that CPCB has inspected the site on 17.11.2020. CPCB has also issued Directions dated 27-01-2021 under Sec 5 to all SPCBs/PCCs for Enforcement of provisions of SWM Rules Regarding Bio-mining of legacy waste which is available at CPCB website (<https://cpcb.nic.in/openpdffile.php?id=UHVibGJlYXRpb25GaWxILzM5NjNfMTYxMTkyMTMyMF9tZWRRpYXBob3RvNDMyNy5wZGY=>).

Further, CPCB has written a letter dated 02-05-2021 (**Annexure I**) to The Member Secretary Telangana State Pollution Control Board to take necessary action to ensure that requisite measures for odour control and remediation of Ground & Surface water is taken by Greater Hyderabad Municipal Corporation.

In view of above, you are requested to get technical guidance from other Municipal Corporations which have successfully implemented bio-mining work in legacy waste dump site.

This issues with the approval of competent authority.

Yours faithfully,

  
(Divya Sinha)

Additional Director and DH-UPC-II

Encl.: As above

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

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SPEED POST

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

Dated: 02.05.2021

F.No. B-11011/UPC-II/MSW/2020-21/

To,

The Member Secretary  
Telangana State Pollution Control Board,  
Paryavaran Bhawan, A-3, I.E. Sanath Nagar,  
Hyderabad-500 018

Sub: - Complaint regarding violation of SWM Rules, 2016 by Greater Hyderabad  
Municipal Corporation-reg

Ref: - Letter of Hon'ble MP, Shri Anumula Revanth Reddy dated 15-09-2020

Sir,

With reference to above-mentioned letter addressed to Hon'ble MEF, CPCB had conducted a joint inspection along with SPCB of the Jawahar Nagar site under consideration and the inspection report is enclosed herewith. The following are the major observations:

1. Jawahar Nagar waste management site has two components – capped legacy waste in 130 acres and integrated solid waste management facility in an area of 200 acres.
2. Total capacity of waste processing facility is 5775 TPD. (Compost plant – 2040 TPD, RDF- 2400 TPD, Recycling – 600 TPD and Sanitary Landfill – 735 TPD).
3. 12 million tonnes of Legacy Waste is capped and capping is 80% complete.
4. The site is surrounded by lakes and ponds upstream and downstream of the facility.
5. Leachate generated from Legacy Waste dumpsite finds its way to Malkaram which is adjacent to the site. The lake is heavily contaminated and overflow from this lake contaminates the downstream lakes.
6. Samples of Surface and Ground Water collected from the site report high level of pollution in terms of BOD, COD, TDS, TSS, Chloride, Nitrates, Ca & Mg.
7. Strong odour observed in the area of the waste processing site.
8. Complaints have been received against Jawahar Nagar facility regarding odour nuisance and leachate generation from legacy waste dumpsite since 2017.
9. Telangana SPCB has issued Directions dated 13-12-2017, 23-01-2018, 23-05-2020 & 06-06-2020 to take necessary measures to control odour nuisance and pollution due to leachate generation from the Legacy Waste Dumpsite.

Cont.

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10. In OA No. 606/2018, Hon'ble NGT has directed to take up biomining/bio-remediation of the site instead of capping. GHMC has filed a review petition.

11. Three alternative sites outside the city limits have been identified for waste management in compliance with Directions of Hon'ble NGT.

It is to be noted that CPCB has issued Directions dated January 27, 2021 under Sec 5 of EPA, 1986 to all SPCBs/PCCs for Legacy Waste management in their respective States/UTs.

In view of above, it is requested that necessary action be taken to ensure that requisite measures for odour control and remediation of Ground & Surface water is taken by Greater Hyderabad Municipal Corporation and the Action Taken Report be submitted to this office within 15 days of issue of this letter.

This issues with approval of Competent Authority.

Yours faithfully



(Divya Sinha)

Additional Director & I/c UPC-II



## GREATER HYDERABAD MUNICIPAL CORPORATION (GHMC)

## PRE BID REPLIES

RFP Notice NIT No. 13/SE(SWM)/GHMC/2021-2022 dated 28.03.2022.

Disposal of Legacy Waste from scientifically capped Jawaharnagar legacy dumpsite through Bio-mining and Bioremediation for land reclamation, resource recovery and suitable disposal of residual solid wastes as per SWM Rules 2016

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
1	Page 3/ data sheet sl.no. 16		Site preparation, mobilization & installation of machinery and obtaining regulatory clearances: 3 months	<p><b>QA)</b> We would need minimum of 6 months as mobilization period for the site preparation, mobilization, manpower deployment &amp; installation of machinery.</p> <p><b>QB)</b> At least six months to be considered for the same.</p>	See corrigendum
2	Page 3/ data sheet sl.no.17	Project Key activities	Bio-mining and Bioremediation of already capped legacy dumpsite duly removing various layers of the dump capping for land reclamation, disposal of recovered materials with appropriate disposal certificate, disposal of residual solid wastes into engineered landfill created at bidders' own cost in their own site, construction of leachate treatment plant for leachate management and gas management from existing gas vents and stabilization of soil of the reclaimed land.	<p>Since the contract is predominantly a Bio-mining contract and construction of engineered landfill is a space which is completely different, it requires Bio-mining companies to rely on consortium for the same. This makes it eminent that even after the Bio-mining contract is completed one needs go on till the landfill is constructed. Hence it is our humble request that the landfill contract may be separated and a separate tender may be called for the same.</p> <p>We request you to consider 100% land reclamation with Zero residue model which will be helpful to get the work done in a rightful manner and also will be a level playing field since most of the "Completed projects" across the country are with the "Zero Residue Model" and does not require an additional SLF construction and maintenance for a minimum period of 15 years which is a long term burden on GHMC.</p> <p>Also, Leachate treatment plant installation is totally different from that of Bio-mining projects and hence</p>	No change is contemplated

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
				request Authority to isolate this from the Bio-mining tender and call for a separate tender for the same.	
	Page 3/ data sheet sl.no.18	Total project completion period	36 months from date of signing of agreement including initial 3 months for site preparation, mobilization of men and machinery.	<p><b>QA)</b> We would request you to kindly consider the work completion period as 60 working months excluding the Mobilization and Monsoon periods.</p> <p><b>QB)</b> Request Authority to increase mobilization period to minimum of 6 months. Further it is requested to reckon contract commencement from the date of receiving all applicable permits for project activities including Engineering sanitary land fill. It is not clear if prior EC for the biomining is required or not. GHMC may clarify.</p> <p><b>QC)</b> Total project completion period:72 months from date of date of signing of agreement, excluding monsoon including initial 6 months for the preparation, mobilization of men and machinery. Construction of sanitary landfill falls under the EIA notification and for the same EC needs to be obtained from the State Environmental Impact Assessment Authority (SEIAA). Time frame for the execution to be considered after the granted necessary clearances from the statutory authority.</p>	See corrigendum

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
4	Page 4/data sheet sl.no.19	Total Waste quantity	<p>To be assessed by the bidder before Bidding (indicative Quantity in the capped dump is about 120 lakh metric tons, which includes waste profiled to a maximum height (at peak) of about 50-60 m above ground level and in the valley portions at some pockets).</p> <p>Authority guarantees for 60 lakh metric tons of waste in any case.</p>	<p><b>QA)</b> We also need the following clarifications regarding the quantity of legacy waste—</p> <p>a) Whether it is based on the Contour Survey. If so kindly provide the Survey Report</p> <p>b) If the waste exceeds the estimated quantity, kindly clarify on how to proceed and what should be done by the bidder.</p> <p>c) Kindly clarify the level of clearance of the waste present at the dump site.</p> <p>We kindly request GHMC to provide site information like official map and Contour Survey records for the bidders to access the site conditions.</p> <p><b>QB)</b> Request Authority to confirm what remedies are available to Contractor if waste quantum is less than 60 lakh MT.</p> <p><b>QC)</b> To assess the volume kindly share the initial contour survey and capped contour survey. Guarantee quantity and indicative quantity difference is double. Kindly share the basis of indicative quantity.</p>	<p><b>AA)</b></p> <p>a. the quantity is based on rough estimation.</p> <p>b. the successful bidder has to proceed under the same terms and conditions of the agreement.</p> <p>c. Total waste present in the capped dump shall be cleared irrespective of level.</p> <p><b>AB)</b> No reply</p> <p><b>AC)</b> See Corrigendum</p>

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
5	Page 4/data sheet sl.no.21	Construction of engineered landfill	To be developed by the bidder at their own cost at bidder's own site. No separate payment shall be made for the same.	<p><b>QA)</b> We request you to consider 100% land reclamation with Zero residue model which will be helpful to get the work done in a rightful manner and also will be a level playing field since most of the "Completed Projects" across the country are with the "Zero Residue Model" and does not require an additional SLF construction and maintenance for a minimum period of 15 years which is a long term burden on GHMC.</p> <p><b>QB)</b> Do we need to produce document proof of land ownership for construction and operation of landfill before bidding or after letter of issuance.</p> <p><b>QC)</b> To develop Engineered landfill required land/site shall be given by Greater Hyderabad Municipal Corporation (GHMC). Kindly share the probable site location to make the estimate for transportation of waste.</p>	<p><b>AA)</b>The successful bidder may carry out the work with zero residue model subject to fulfillment of other terms and conditions of the RFP document.</p> <p><b>AB)</b> see corrigendum</p> <p><b>AC)</b> No change is contemplated</p>
6	Page 4/data sheet sl.no.22	Leachate Management	Leachate generated during the project execution shall be managed by the Bidder at their own cost by establishing Leachate Treatment Plant of required capacity in the site or through any other acceptance arrangement for disposal. No separate payment shall be made for the same.	<p><b>QA)</b> Leachate treatment plant Installation is totally different from that of Bio-mining projects and hence request Authority to isolate this from the Bio-mining tender and call for a separate tender for the same.</p> <p><b>QB)</b> Request for any calculations on the Leachate that can be generated to consider the acceptable disposal mechanism.</p>	<p><b>AA)</b>No change is contemplated.</p> <p><b>AB)</b> No</p>
7	Page 11, Clause 1.1.8.3	Terms of Reference	Construction of required landfill facility in the own land of the Bidder for the disposal of rejects including all synthetic liners and all other wastes resulting from dismantling of allied works of the existing scientific capping.	<p><b>QA)</b> Since the contract is pre-dominantly a Bio-mining contract and construction of engineered landfill is a space which is completely different, it requires Bio-mining companies to rely on consortium for the same. This makes it eminent that even after the Bio-mining contract is completed one</p>	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
				<p>needs go on till the landfill is constructed. Hence it is our humble request that the landfill contract may be separated and a separate tender may be called for the same.</p> <p><b>QB)</b> Request "Authority to provide land" at the prevailing Govt. lease rates in the project vicinity of 5km. Prior EC for any SLF is mandatory including Public hearing. If prior EC is required for the disposal of residues, then the project start time shall start from date of Issue of EC.</p>	
8	Page 11, Clause 1.1.8.4		Design, Construction and commissioning of Leachate Treatment Plant and landfill gas management plant of required capacity or any arrangement for the same during the entire Project period as accepted to the Authority duly taking all safety precaution without harming the environment as per applicable Rules/norms.	Leachate treatment plant installation is totally different from that of Bio-mining projects and hence request Authority to isolated this from the Bio-mining tender and call for a separate tender for the same.	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
9	Page 15, Clause 2.2.1 (7.A)	Eligibility and Technical Qualifications	<p>Technical Criteria: 7.A The firm to have prior experience and expertise in the last 10 (ten) financial years ending with 2020-2021 as follows:</p> <p>a) having completed over all bio-mining/bio-remediation of at least 30 (thirty) lakhs tons of legacy waste, including disposal of excavated and segregated material;</p>	<p><b>QA)</b> Is the experience of 30 lakh metric tons considered only for processing or is including the disposed quantity of aggregates over the last 10 financial years?</p> <p>We understand that there are very few players having done the above quantity and hence kindly consider revision of the quantity of Eligibility criteria to a lesser quantity so that more competitive bids can qualify for the tender.</p> <p><b>QB)</b>As the scope of work is similar as involve in management of Hazardous waste, we request department to consider Hazardous waste experience for qualification purpose, so that maximum number of bids department may get to compare the price. Hence kindly request you to amend the <b>Technical Criteria</b> as follows: The firm to have prior experience and expertise in in the last 10 (ten) financial years ending with 2020-2021 as follows: a. having completed over all bio-mining/bio-remediation/<u>treatment</u> of atleast <b>10 (ten)</b> Lakhs Tons of Legacy Waste/<b>Hazardous waste</b> including disposal of excavated and segregated material;</p>	No change is contemplated.
10	Page 15, Clause 2.2.1 (7.A)	Eligibility and Technical Qualifications	<p>b. having completed at least one project of dumpsite bioremediation/ bio-mining including disposal of excavated and segregated material, construction of Engineered landfill or disposal of rejects involving minimum of 10 (ten) lakhs MT of legacy waste Quantity.</p>	<p><b>QA)</b> In India till date no one has “completed” 10 lakh metric tons of Biomining/remediation including disposal of excavated material in a single work order, hence please consider revising this quantity for participation in this tender.</p> <p><b>QB)</b> b.having completed/running at least one project of dumpsite bioremediation/bio-mining/ Hazardous waste, including disposal of excavated and segregated material,</p>	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
				construction of Engineered/ <u>secured</u> landfill for disposal of rejects/waste involving minimum of 10 (Ten) Lakhs MT of legacy waste Quantity/ <u>Hazardous waste</u> .	
11	Page 17, Clause 2.2.9	Eligibility and Technical Qualifications	<p>Financial Criteria</p> <p>The Bidder should have an Average Annual Turnover of INR 1000 (thousand) crores in the last 3 (three) financial years (FY 2018-19, 2019-20 &amp; 2020-21). In case of a Consortium, cumulative of the average annual turnover of each of the Members of the Consortium would be reckoned.</p>	<p><b>QA)</b> Kindly consider revising this average annual turnover to 250 crores instead of 1000 crores since Biomining is relatively a new concept which is strongly implemented only in the last 3 to 5 years and also since it's a opex model of revenue generation, there are hardly any Biomining company in India who can match this kind of a turnover criteria.</p> <p><b>QB) We request to kindly relax the requirement of turnover and amend the clause as follows:</b></p> <p><b>FINANCIAL CRITERIA</b></p> <p>The Bidder should have an Average Annual Turnover of INR <del>1000</del>-(thousand) <b>800 (eight hundred)</b> Crores in the last 3 (three) financial years (FY2018-19, FY2019-20 and FY2020-21).</p> <p><b>QC)</b> Looking into the duration of project and the project cost request you to kindly consider an Average Annual turnover of INR 110 crores in the last 3 (three) financial years (FY2018-19, FY 2019-20 and FY 2020-21). In case of consortium, cumulative of the average annual turnover of each of the members of the consortium would be reckoned.</p>	See corrigendum
12	Page 27, Clause 3.4.10	Financial Bid	<p>“Upset Project Price”: The maximum project cost, “Upset Project Cost”, arrived by the Authority is INR 660.00 crores (Rupees Sixty hundred and Sixty crores</p>	<p><b>QA)</b> Please be informed of the fact that as per the CPCB guideline page 25 clause 5, the onsite bioremediation cum Biomining cost ranges between Rs.400 to Rs.700</p>	No change is contemplated

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			only) for this project. Hence any Bid with Project cost more than INR 660.00 cr arrived based on the "Bid Rate" quoted by the Bidders will be summarily rejected.	<p>per Cubic Meter, irrespective of capital cost. The case by case cost of moving screened fractions (aggregates) off site will be extra and variable depending on distance to farmers, cement plants etc.</p> <p>Hence, request GHMC to consider revision of per MT Bio-mining tipping fee above Rs.950/- which is the national average of the Tipping fees for the successful and completed projects till date.</p> <p><b>QB)</b> Request Authority if the transportation cost is also included in the Upset Project Price considering the uncertainty of the increase in the fuel prices.</p>	
13	Page 30, Clause 3.13	Performance Security	The selected bidder shall submit performance security for an amount equal to INR 50.00 Cr (INR Fifty cores only) at the time of entering into the agreement in the form of Bank Guarantee as per the Form 13 from any nationalized scheduled bank in favour of the Commissioner, GHMC. The validity of Bank Guarantee for performance security shall be for the entire contract period plus 6 months after the expiry of Contract period.	In lieu of the recent GOI finance notification post pandemic on the down ward revision of the Performance Security norms, request GHMC to consider revising the same to 3% by way of Bank Guarantee from the Bidders.	No change is contemplated.
14	Page 31, Clause 4.2.5	Method of Evaluation	The Bidder with lowest financial bid shall be the Lower bidder (L1 Bidder) and shall be declared as the successful bidder to whom the LoA shall be issued, subject to other provisions of this RFP.	It is kindly requested that GHMC may kindly be adopt QCBS methodology to assess the tenders as this would give scope for bidders who have the technical capability to clear the aggregates completely and do a responsible disposal with traceability and tractability certificates for verification from honorable National Green Tribunal (NGT) at any given date in the future.	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
15	Page 35, Clause 6.1.1	Payment Schedule - Payment Mechanism	<p>Payment calculation for work <math>(P)=(WXR)</math></p> <p>where  <math>W</math>=Arithmetic sum of weight of all material in tons, moving out from the dumpsite (i.e. RDF Soil enricher, Recyclables, C&amp;D waste, inert material, etc.)</p> <p><math>R</math>=Rate per MT as per agreement.</p>	<p><b>QA)</b> We request the payment will be made monthly on the basis of weightment of incoming waste to the processing plant set up by the Bidder for the purpose of this project. Payment will be released after ensuring that waste is processed as per the applicable rules in force and removed from the site for further disposal.</p> <p>This change is requested since this is the industry practice for all Biomining projects and also will ensure smooth execution of the project since the Bidder will have a smooth cash flow for the finances hypothecated with his financiers since the Biomining projects on Design, Build, Finance, Own, Operate (DBFOO) model is highly capital intensive.</p> <p><b>QB)</b> Please explain / define, whether the Weightment for payment will be based on the waste excavated from the dumpsite or based on the recyclables recovered.</p> <p><b>QC)</b> Payment to be make on work done on volumetric basis rather than weight basis.</p> <p><math>W</math>=Arithmetic volume difference between initial drone survey and drone survey at the time of billing.</p> <p><math>R</math>=Rate per m3 as per the agreement.</p>	<p><b>AA)</b>No change is contemplated.</p> <p><b>AB)</b> Payment will be made based on the weight of the material disposed from the capped dump site as per the terms &amp; conditions of the RFP.</p> <p><b>AC)</b> No change is contemplated.</p>
16	Page 36, Clause 6.1.1.ii	Payment schedule	<p>ii. The payments shall be released on monthly basis by the Authority to the contractor on receipt of bill from the Independent Agency duly verified and certified by them, subject to the compliances of all the terms and conditions of the Agreement as per</p>	<p>Request GHMC to kindly consider 100% payment on monthly basis with the bifurcation quantification of overall processing and disposal on an 80:20 ratio so that contractor will have a smooth cash flow to seamlessly execute and complete the project on time.</p>	<p>No change is contemplated.</p>

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			<p>the following schedule in phased manner.</p> <p>a) 75% bill amount shall be paid within 15 days from the date of receipt of the certified bill from the Independent Agency, subject to recovery of any penalties/statutory deductions.</p> <p>b) 15% bill amount shall be released for every quarterly period along with subsequent monthly bill payment subject to verification of disposal of inerts in Engineered landfill and management of Leachate and Gas, within 15 days of submission of inspection report from the Independent Agency, subject to recovery of any penalties/statutory/ deductions</p> <p>c) Balance 10% bill amount will be retained with the Authority as Future Security Deposit (FSD) for fulfillment of all obligations as per the ToR, till the end of the Project Completion and this total retained amount shall be released (3) months after completion of the project, subject to recovery of any penalties/statutory deductions.</p>		

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
17	Page 82/ point no.3	Terms of Reference of Bio-mining-Scope of Work	Construction of required landfill facility in the own land of the Bidder for the disposal of rejects including all synthetic liners and all other wastes resulting from dismantling of allied works of the existing scientific capping.	<p><b>QA)</b> No bidder would be in a position to own a land near the existing dump site and hence this condition would deprive bidders of a fair opportunity in participating in the tender.</p> <p><b>QB)</b> Request Authority to clarify the meaning of “own land”. Also request the area required for the landfill as the volume of inerts that can come from the processing is still unknown and may require an area more than the current capped dumpsite whose height is 50 meters and adding all the rejects from the synthetic liners etc.</p>	<p><b>AA)</b>No change is contemplated.</p> <p><b>AB)</b> See corrigendum</p>
18	Page 82/ point no.4		Design, construction and commissioning of leachate treatment plant and landfill gas management plant of required capacity or any arrangement for the same during the entire project period as acceptable to the Authority duly taking all safety precaution without harming the environment as per applicable Rules/norms.	<p>Kindly clarify as to whether there is any leachate treatment facility existing in the capped dump site and also will the bidder be allowed to do minor modifications and use the same.</p> <p>Being a capped site, there would be existing infrastructure to manage the methane gas emissions also. Will the contractor be allowed to use the same or should be constructing a new gas management plant in the site.</p>	The successful bidder shall make its own arrangement for leachate and gas management at its own cost.
19	Page 83/ part A (1) (iv)	Terms of Reference of Bio-mining-Key Roles & Responsibilities of the Successful Bidder (Contractor)	(iv) ... The Authority will have the discretion to declare a portion (not more than 50%) of soil and other liner material removed from capping as useful for internal purposes for the use of the Contractor/otherwise (by the Authority or its representative), on which quantity no payment shall be made.	<p><b>QA)</b> Kindly clarify whether the inert's which generally hovers around 50 to 60% in any capped site (presumption only), then will the authority not demand the contractor to scientifically dispose the inert's outside of the dump site to the extent of 50% of the aggregate generated after processing.</p> <p><b>QB)</b> Please define reuse criteria for recovered soil and recovered liner material for reuse into new sanitary landfill.</p>	See corrigendum

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
20	Page 83/ Part A.2.1	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	The Bidder needs to remove entire legacy waste present in the capped legacy dumpsite at Jawaharnagar and dispose the extracted material, without stacking them at site beyond 15 days, (applicable from 2 <sup>nd</sup> quarter).	It is kindly requested that stacking of material may be allowed for atleast 25 days considering the quantity that needs to be handled on every day basis.	See corrigendum
22	Page 86/ Part A 2.14	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	Responsibly of packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all useful material within 15 days of segregation, at own cost, shall be the responsibility of the Bidder.	We kindly request to provide upto 25 days for the bidder to dispose the segregated materials from the dumpsite.	See corrigendum
23	Page 90/ 3.1	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)-	Land reclamation and Engineered Sanitary Landfill development:  The Bidder shall reclaim entire land of 125 acres to natural form and take necessary step to remediate the soil, if at all any contamination is found in it.	<b>QA)</b> Remediation of soil as a process is totally different from Biomining and Soil remediation is a time consuming process and different methodology is applicable for the same in case any contamination is present. Since the bidder will not be able to assess currently on what level of contamination is present it becomes extremely difficult for the bidder to adhere to timelines. Hence, our request is to kindly remove the said clause.  <b>QB)</b> Request Authority if the cost of the remediation has been considered in the Upset Project Price. In case it is not considered request to provide price escalation if at all any contamination is found.	See corrigendum
24	Page 92/ Part A 4.9		After the completion of the project, the contractor shall hand over the leachate treatment plant to the authority, duly providing necessary training to the supervisor/technician, as authorized by the Authority, for further treatment of leachate or polluted ground water, if any by the Authority. All the documents with respect to the future	Leachate treatment plant installation is totally different from that of Bio-mining projects and hence request Authority to isolate this from the Biomining tender and call for a separate tender for the same.	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			Operation & Maintenance, i.e. instruction manuals, as built drawings and other information shall be provided by the Bidder, both in soft and hard copies.		
25	Page 99/ Part C 7.1.4	Part C – Obligation of parties- Obligations of Bidder	Site preparation, mobilization, manpower deployment installation of machinery, etc. and construction/ creation of other allied facilities shall be completed within 3 months from the signing of the Contract Agreement. After these 3 months, the reclamation of the sites shall be done within 33 working months.	We would need minimum of 6 months as mobilization period for the site preparation, mobilization, manpower deployment & installation of machinery.	See corrigendum
26	Page 102/ Part C 7.3 – Note point 3	Part C – Obligation of parties- Miscellaneous – Other Assistance by the Authority	Note: 2. In all cases, where the authority is facilitating disposal....  3. Irrespective of point (b) above, the revenue generated (if any) by the disposal of excavated material to the external agencies, shall go to the Authority only.	This is never the practice in any Biomining project across the country since there no revenue generated from the sale of aggregates and also the contractor has to bear the expenses on negative costing the transportation of RDF and inerts.  Since the Legacy waste is a heterogeneous mixture deposited over many years no clear assumption can be arrived at on the sale of aggregates and hence request GHMC to absorb the transportation cost of the scientific disposal of the RDF and inerts.	See corrigendum
27			General	We request the following additional clarifications from the Corporation:  1) How much land will be provided to the Bidder within the dumpsite to setup the plant and machinery. Whether the same can be with natural ground level ensuring the placement of machineries without any danger.  2) Since it is a DBFOO model project, it is requested that the Corporation may kindly	1.As per the prevailing site condition.  2. No mobilization advance will be provided.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
				provide Mobilisation advance to the tune of 10% of the Project value against a irrevocable Bank Guarantee provided by the Bidder for the project period. The advance may later be adjusted along with the bills in proportion. This would help the bidder immensely in bidding the best price for the said project. 3) What are the other deductions apart from the ones mentioned in the RFP document from the monthly payments that will be made.	3.Any other mandatory deductions directed by the Govt., if any, during the contract period.
28	Page 2 / Data sheet sl.no.9		Last date and time for submission of the proposal : 13.05.2022 at 16.00(IST)	Request to extend the due date by more 30 days after clarification of all queries.	See corrigendum
29	Pg11 / Cl 1.1.8.2	Introduction- Terms of Reference	Reclamation of 100% of land below the capped dump by stabilization of sub soil as per the requirements/ guidelines and/ as stipulated by the Independent Agency and handing over of the same to the Authority	<b>QA)</b> Please clarify who will be independent Agency, what is the appointment criteria (if not already been appointed) and remuneration thereof. When will the Independent agency will be appointed? <b>QB)</b> Need to define the stabilization of sub soil.	See Corrigendum
30	General			Request Authority to include Change in law clause	As per RFP
31	Pg 20/ Cl 2.5.2 e	Site Visit and verification of information	e) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the bidding documents or ignorance of any of the matters referred to in clause 2.5.1 hereinabove shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc., from the Authority, or a ground for termination of the	Request Authority to delete this clause as if the bidder backed up this clause with financial institutions, availing loans for the project would be next to impossible.	No change is contemplated

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			Agreement by the Contractor;		
32	Pg 29/ Cl 3.12.3	Bid Security	The Bid Security of unsuccessful Bidders will be returned by the Authority, without any interest, as promptly as possible on acceptance of the Bid of the Selected Bidder or when the Bidding process is cancelled by the Authority, and in any case within 90 (ninety) days from the date of issue of LOA to the selected bidder	Request authority to release the Bid security within 15 days from the date of announcement of successful bidder	No change is contemplated
33	Pg 34/ Cl 4.9	Stamp Duty, Legal Charges and Stationery Charges	The Bidder shall pay stamp duty on the contract and legal & stationery charges for preparation of the contract agreement, as per the applicable rules....	<b>QA)</b> Please clarify will charges be reimbursed <b>QB)</b> Please provide the exact amount payable as stamp duty or legal charges for signing the agreement.	See Corrigendum
34	Pg 36/ Cl 6.1.1.(ii).c	Payment Schedule- Payment Mechanism	c. Balance 10% bill amount will be retained with the Authority as Future Security Deposit (FSD) for fulfillment of all obligations as per the ToR, till the end of the Project Completion and this total retained amount shall be released (3) months after <u>completion of the Project</u> , subject to recovery of any penalties / statutory deductions	Request Authority remove this clause, as withholding 10% bill amount will disrupt the successful bidder's cash flows.  Also, Please define completion of the Project.	No change is contemplated  Completion of the project is the complete disposal of waste from capped dumpsite including management of leachate & landfill gas during the project period as per the terms and conditions of RFP.
35	Pg 36/ Cl 6.2	Liquidity Damages	...the compensation shall be levied on the Contractor at the rate of Rs.1,00,000/- per day of delay limited to maximum of 10% of the Contract Value....	Request Authority to reduce the amount to 50,000 per day. In any case, any/all damages shall be levied only after issuing notice to the contractor by giving cure period of 30 days	No change is contemplated
36	Pg 37/ Cl 6.3	Project Milestones	Considering 33 months duration for project completion excluding initial 3 months mobilization period, the milestones shall be linked with the following percentage of work completion:	Kindly increase mobilization period to 6 months from the date of environmental clearance or from the date of agreement, whichever is later.	See corrigendum

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
37	Pg 38/ Cl 6.4 Sl.No.9	Penalty for non compliance	Delay in actual date of completion/ commissioning of engineered landfill site, after the stipulated duration of the project; i.e.6 months from date of signing of agreement	Request to change "Delay in actual date of completion/ commissioning of engineered landfill site, after the stipulated duration of the project; i.e.12 months from date of obtaining applicable approvals/permissions from the concerned departments"	No change is contemplated
38	Pg 38/ Cl 6.4 Sl.No.10	Penalty for non compliance	Delay in actual date of completion/ commissioning of LTP or any other suitable arrangement for treatment and disposal of Leachate, after the stipulated duration of the project; i.e., 6 months from date of signing of agreement.	Request to change to " Delay in actual date of completion/ commissioning of LTP or any other suitable arrangement for treatment and disposal of Leachate, after the stipulated duration of the project; i.e., 12 months from date of obtaining applicable approvals/permissions from the concerned departments."	No change is contemplated
39	Pg 39/ Cl 7	Force Majeure		<b>QA)</b> Please include pandemic / epidemic in FM Event  <b>QB)</b> Request Authority to include " Pandemic situation " also in the list of Force Majeure events.	No Change is contemplated
40	Pg 40/ Cl 7.2	Notice of Force Majeure	...The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.	Request authority to change to 30 days	No Change is contemplated
41	Pg 41/ Cl 7.5	Optional Termination, Payment and Release	...Upon such termination, the Authority shall determine the value of the work done and issue a Payment which shall be equivalent to an amount equal to the unpaid payment due on date of termination of the Agreement.	Request Authority to pay 100% of Book value of the project + unpaid payment + loss of profit as on date of termination.	No change is contemplated

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
42	Pg 41/ Cl 7.6 (b)	Release of performance	(b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under Clause 7.5. if the Agreement had been terminated under Clause 7.5.	Request Authority to change this clause as above.	No Change is contemplated
43	Pg 41/ Cl 8.1.1 (e)	Termination for Contractor Default	Construction of project does not occur within the period specified in Clause 6.3	Request authority to delete this clause	No Change is contemplated
44	Pg 43 / Cl 8.2.1 (b)	Termination for Authority Default	the Authority fails to provide, within a period of 180 (one hundred and eighty) days from the Agreement Date, the Site required for project development;	Request authority to provide site within 30 days from the date of Agreement.	No Change is contemplated
45	Pg 45/ Cl 10.2	Depreciation	For the purposes of depreciation under Applicable Laws, the assets representing the capital investment made by the Contractor in the Project shall be deemed to be acquired and owned by the Contractor. For the avoidance of doubt, the Authority shall not in any manner be liable in respect of any claims for depreciation to be made by the Contractor under Applicable Laws.	Request authority to delete this clause	No Change is contemplated
46	Pg 45/ Cl 10.3	Delayed Payments	The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 60 (sixty) days of receiving a demand along with all necessary particulars.	Request authority to change it to 30 days instead of 60 days	See corrigendum
47	Pg 45/ Cl 10.3	Delayed Payments	Unless and otherwise specified in this Agreement, in the event of delay beyond such period, the defaulting Party shall pay interest for the	Request authority to change to SBI PLR + 2%	No change is contemplated

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			period of delay at the rate of Prime Lending Rate of SBI		
48	Page 85/ Part A 2.8	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	The Bidder shall carryout ETS & DGPS of complete project site....	At what time of the project these surveys have to be conducted ?	As per the RFP
49	Page 85/ Part A 2.13	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	The Bidder shall channelize the recovered/ segregated material from the legacy waste to the identified vendors/parties and disposal of inert/rejects as per CPCB Guidelines, without stacking them at site for more than 15 days.	Request Authority to revise it to 45 days instead of 15 days.	See corrigendum
50	Pg 94 / Part B Cl 6.2.9	Terms of Reference - General Roles & Responsibilities of the Bidder	No work at night shall be done. Special permission shall be taken beforehand from the appropriate authority if needed.	Request authority to allow working at night, else meeting the milestone targets would be difficult	See corrigendum
51	Pg 101/ Part C- Cl 7.2.2	Terms of Reference - Obligation of Parties	Authority would hand over possession of the site/s to the Bidder, irrespective of the title of the land to enable him to carry out activities required for executing the Terms of Reference.	Please clarify within how many days land will be handedover to the successful bidder.	Immediately after entering agreement
52	Page 33 clause 4.5.5		... The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Agreement.	Please provide draft concession Agreement along with all key contractual conditions.	See corrigendum
53	Pg 43/ Cl. No.8.3.2	Termination Payment	Upon Termination on account of Authority Default, the Authority shall pay to the Contractor, by way of Termination Payment, an amount equal to <u>50% of the Bid price</u> or an amount equal to the unpaid payment due to the extent of work done as on date of termination in	We request Authority to change 120% (one hundred and fifty per cent) of the Book Value of Project + 105% of the unexpired / future cash flow discounted at the rate of 12% and Performance Bank guarantee if subsisting shall be released to the Contractor. Further, we request to define 'Bid Price'.	No change is contemplated

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			accordance with terms and conditions of the Agreement, whichever is more		
54			Escalation:	<p>As the project tenure is about 3 years, we request Authority to provide for escalation mechanism in Whole Sale Price Index form, covering the following cost factors. 50% towards Minimum wages. 40% towards Diesel. 10% towards others.</p> <p>Escalation of tipping fee shall be governed by the following formula:  <math display="block">T_n = T_0 X W_1 x (1 + ((D_1 - D_0)/D_0) + T_0 X W_2 x (1 + ((L_1 - L_0)/L_0)) + T_0 x W_3 x ((WPI_1 - WPI_0)/WPI_0)</math> </p> <p>Whereas:  <b>T<sub>n</sub></b> = The tipping for the nth year  <b>T<sub>0</sub></b> = The base tipping fee quoted by the Concessionaire;  <b>D<sub>0</sub></b> = Base Diesel Price on the day of submission of financial bid  <b>D<sub>1</sub></b> = Revised Diesel price as notified by Ministry of Petroleum and Natural Gas;  <b>L<sub>0</sub></b> = Base Minimum Wage- in line with Minimum Wage Act, on the day of submission of financial bid;  <b>L<sub>1</sub></b> = Revised Minimum Wage as notified by XXXXX; <b>WPI<sub>0</sub></b> = The base Wholesale Price Index (WPI) rate on the Bid Due Date published by Office of the Economic Advisor, Government of India on monthly basis;  <b>WPI<sub>1</sub></b> = The base Wholesale Price Index (WPI) published by Office of the Economic Advisor</p>	No escalation

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
55	Pg 10/ Cl. 1.1.7	Introduction	The firm/ agency/ tenderer participating in this bid (herein after referred to as "the Bidder" in this Bid Document) is expected to execute the bio mining and bioremediation work by removing the above layers of cap as per the applicable norms or existing practices globally, if any or the guidelines issued from time to time by the regulatory authorities such as CPCB/ TSPCB or any other agency on behalf of the Authority along with utilization or dismantling of the following allied works:...	Request to clarify that the dismantled/removed items to be retained with Bidder or handed over to the client	See corrigendum
56	Pg.10/ Cl. 1.1.8.3  Pg.98/ Cl. 6.5.19  Pg.101/ Cl. 7.1.15		<p>Construction of required landfill facility in the own land of the bidder for the disposal of rejects including all synthetic liners and all other wastes resulting from dismantling of allied works of the existing scientific capping.</p> <p>After the land reclamation, the Bidder needs to carry out testing of the soil underneath the waste and if found contaminated, necessary solid treatment techniques need to be applied before constructing the Engineered Sanitary Landfill.</p> <p>After completion of contract period (extended period as the case may be), within 3 months, the bidder has to remove any plant, machineries, equipment from the site, which shall not be linked to the future operations of</p>	We understood that the Landfill (for disposal of inerts from the proposed biomining) shall be constructed on reclaimed land. Please confirm.	No, the successful bidder may adopt zero residue model, if not, shall develop SLF at it's own land outside the project site.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			Engineered Sanitary Landfill and LTP.		
57	Pg.37 / Cl. 6.3 B	Project Milestone	Milestones for construction of Landfill and construction of LTP or any other arrangement for management of Leachate and installation of flaring system or any other landfill gas management system: End of Quarter 1.	The Flaring System and gas management system can be done after complete filling of landfill for closure of landfill Requesting to modify accordingly	The clause is regarding possible leachate and gas management during the bio-mining at site. The leachate and gas management as per requirement is part of landfill construction at the bidder's own site.
58	Pg.86/ Part A Cl. 2.15	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	However, in case of any assistance provided by Authority in channelization of the excavated material to external agencies, in line with the clause no. 7.3 of Part-C of Terms of Reference, the revenue shall go to the Authority.	Kindly confirm that if any recycles are able to tie up and dispose by the GHMC, the sale proceed obtain from this tie up or sale will be in account of GHMC.	Yes, but it is not the responsibility of GHMC to tie up (or) dispose the same and it is 100% responsibility of the successful bidder, whether or not GHMC facilitates for channelization.
59	Pg.91/ Part A Cl. 3.10		The Bidder need to ensure that rainwater, which is supposed to be accumulated in identified landfill area, shall be drained out during and after execution of work. After execution work, the rainwater may also be channelized to the Rainwater Harvesting Structures.	Rain water harvesting may not be allowed at waste management sites. Please confirm.	See corrigendum
60	Pg.100/ Part C- Cl. 7.1.8	Terms of Reference of Bio-mining - Obligations of Parties	...Authority may assist in providing single point connection for electricity requirements from its existing power station near Ghazipur site.	Kindly modify Ghazipur as Jawaharnagar MSW Processing Plant	See corrigendum
61	Pg.101/ Part C Cl. 7.3	Terms of Reference of Bio-mining - Obligations of Parties	<b>Disposal of Inert material:</b> GHMC, in consultation with the NHAI authorities, may finalize the modalities of using inert material for highway construction purpose. In such case, the inert material (30 mm down size and without any organic material) shall be channelized to ongoing NHAI projects in and around	Requesting authority to provide the distance of NHAI project and provide further details of acceptance by the NHAI.	See Corrigendum

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			Hyderabad as per their requirement.		
62	Pg.104/ Annexure II-Cl. 1.v	Engineered Sanitary Landfill Design Specifications	A Non-woven Geotextile Layer to be laid over the gravel layer	Kindly provide the gsm of Geotextile	See corrigendum
63	Pg 11/ Cl 1.1.8.1	Introduction	<b>Bio-mining and Bioremediation of entire legacy waste and disposal of all the extracted material</b> at appropriate location of the user(s) proposed by the bidder and approved by the Authority or Independent Agency and disposal of non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities declared as inerts by the Authority or Independent Agency in the engineered landfill to be developed by the bidder in their own site as per the terms of the agreement and in line with SWM Rules 2016, CPCB Guidelines 2019, MoHUA advisory 2020 and applicable directions of the Hon'ble NGT.	Request Authority to note that SWM Rules 2016, CPCB Guidelines 2019, MoHUA advisory 2020 provide directions for a legacy dumpsite and not a capped dumpsite. Hence we request Authority to get a separate study to be conducted to understand the contents of a capped dumpsite prior to destroying the entire capped area for Biomining. Also in case inerts are more than 85%, another similar landfill would need to be constructed.	The bidder need to inspect the site personally and thoroughly study the site before participating in the bidding.
64	Pg14/ Cl 2.2.1 SI No.7	Eligibility and Technical Qualifications	<b>a.</b> having completed over all bio-mining/bio-remediation of at least 30 (thirty) Lakhs Tons of Legacy Waste, including disposal of excavated and segregated material; <b>AND</b> <b>b.</b> having completed at least one project of dumpsite bio-remediation/bio-mining, including disposal of excavated	Request Authority to also consider the experience of Processing and handling of Municipal Solid waste since Biomining is operationally similar to the same. Also request to remove the experience of disposal of excavated and segregated material as there has been no such project done in India for disposal of excavated material from a capped dumpsite containing 120 Lakh Metric Tons.	No change is contemplated

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			and segregated material, construction of Engineered landfill for disposal of rejects involving minimum of 10 (Ten) Lakhs MT of legacy waste Quantity.		
65	Pg 27/ Cl 3.4.5	Financial Bid	The Bidder, by submitting their Bid, acknowledges that any Bid in excess of the "Upset Price" will be summarily rejected	Request Authority to consider that the distance for transportation for any NHAI projects nearby is still an unknown element and it may be really and practically impossible to be considered in the Upset Price of 600 Cr.	No change is contemplated
66	Pg 27/ Cl 3.4.6	Financial Bid	The Bidder, by submitting their Bid, acknowledges and accepts that the "Bid Rate" quoted by the bidder shall include all costs for construction and operation & maintenance of the project during the Contract period including all applicable duties, taxes and other levies payable as per state/central government rules except GST and mandatory deductions such as Income tax etc.	Request Authority to consider the fact that the Transportation Cost is not in control due to the unforeseen fuel prices and also the distance of transportation for NHAI projects is still unknown element of the project. Hence we request that the Authority should consider price escalation by atleast 10 to 15% yearly.	No change is contemplated
67	Pg30/ Cl 4.2.5	Technical and financial Bid evaluation	The Bidder with lowest financial bid shall be the Lowest Bidder (L1 bidder) and shall be declared as the Successful Bidder to whom the LoA shall be issued, subject to other provisions of this RFP.	Request Authority that considering the dismantling of a capped dumpsite is being done for the first time just lowest financial bid may not be the right criteria to award the tender. We would like to draw attention to the point that there are no studies available to provide information on the contents of a capped dumpsite.	No change is contemplated
68	Pg 86/ Part A- 2.17	Part A - Key Roles & Responsibilities of the Successful Bidder (Contractor):	The Bidder shall be responsible for the payment towards fleet management in order to dispose the material recovered from the legacy waste.	Request Authority if the cost of the fleet management is commensurate with the Upset Project price of 600 Cr.	Yes, within the upset project price as per RFP document.

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
69	Pg95/ Part B - 6.3.2	Part B- General Roles & Responsibilities of the Bidder	Rectifying defects Authority may instruct the Bidder to search for a Defect and to uncover and test any work that the Employer considers may have a Defect.	Request Authority to provide a list of to be considered as defects.	See corrigendum
70	Pg98/ Part B 6.5.19		After the land reclamation, the Bidder needs to carry out testing of the soil underneath the waste and if found contaminated, necessary soil treatment techniques need to be applied before constructing the Engineered Sanitary Landfill.	We understand that the sanitary landfill needs to be constructed in the reclaimed site. Request Authority to provide space for storage of the inerts till the time the land is reclaimed and soil remediation is done prior to construction of the sanitary landfill for the inerts.	See corrigendum
71	Pg 16/ Clause 2.2 Sl. No.8	Eligibility and Technical Qualification	The firm, and the lead member in case of a consortium, to have positive Net Worth in the last (3) financial years i.e FY 2018-19, FY 2019-20 and FY 2020-21	It is compulsory that lead bidder of consortium should have the required net worth. Please confirm.	Yes
72			Land required for processing the material during Bio-mining.	As the quantity to be processed per day as per the details and conditions provided in the tender document is approximately 20,000 tons per day. Hence at minimum 25 acres of land is required for establishing the processing facility. Requesting Authority to provide the required land nearer to the Dump	Land for processing facility will be handed over to the successful bidder as per the existing site situation. Hence bidders are supposed to visit the site physically before bidding.
73			Clearances required for removing the existing Dumpcapping system :	Since the existing dump capping to be removed and do the dump waste reclamation, need the statutory clearances from PCB and all concerned authorities, the 3 months mobilization period considered by the Authority may not be sufficient to get the permissions. Authority may please consider the project commencement after the bidder get all the required clearances.	No change is contemplated

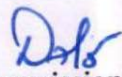
Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
74			Area for Landfill construction	The tender document requires that the bidder shall construct the landfill in his own land. Considering the fact that the procurement of suitable land for landfill and obtaining environmental clearance for the same takes considerable amount of time, it is requested that the total project duration be changed from 36 months to 48 months.	No change is contemplated
75			Existing Gas Collection Dismantling.	Please indicate the details of Gas Collection System already exist in the dumpsite. And Considering the potential hazards from the existing gas collection system while doing excavation, the proposed bio- mining needs to be carried out with extra caution so as to minimize gas leakage/other hazards. This needs a little more time compared to the timelines given in the tender document.	The Bidder shall inspect the site before submission of the bid for obtaining all required details. The successful bidder shall make its own arrangement for gas management on its own cost.
76			Scope of Leachate handling during Bio-mining process :	Please indicate the present quantity of leachate collected from this dumpsite. Possible quantity of leachate generation, level of treatment required, and the mode of disposal of treated leachate may please be clarified so we can finalize the treatment capacity and the treatment scheme of the leachate treatment plant. Clarification may also be provided if it will be acceptable to send the leachate to the nearest CETP or the existing leachate treatment plant at the integrated MSW management facility.	The Bidder shall inspect the site before submission of the bid for obtaining all required details. The successful bidder shall make its own arrangement for leachate management on its own cost.
77			Waste characterization for assessing the quantity of inert material:	Waste characterization may please be provided (especially the percentage of inerts) so we can plan/design the landfill accordingly.	Not available

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
78			Investigation & studies for assessing the depth of waste below ground:	Estimated waste quantity below the natural ground level may please be provided so the bidder can accommodate cost for clearing the same.	Not available
79			Treatment of Contaminated Soil	Quantification for treatment of contaminated soil (after biomining) may please be specified. If possible, it is requested that this activity may please be considered separately (or on 'item rate' basis). This may please be clarified.	See corrigendum
80			Local Issues	We presume if any local issues raise during the biomining of dumpsite, the GHMC will take care of it  Please confirm.	GHMC will support the successful bidder in case of no default by the successful bidder.
81			Extension of Submission	As this a huge project of 250 Acres, there are various survey's, studies and assessment need to be done with collaboration with foreign technology provider to find the best suitable solutions etc. So in view of various activities and support is needed from outside of the country, we request the GHMC to extend the submission date for further 6 months in view of ongoing pandemic of Covid – 19.	See corrigendum
82	General		General	Any Environmental risk studies carried out by GHMC namely in terms of hazards envisaged during the process. If so please share with bidder.	The bidder shall inspect the site before submission of bid to assess any environmental risks, if any.
83			General	Is a Leachate treatment plant necessary for any leachate that may emit from bio mining as collection of the same while biomining is in progress.	Yes
84	Pg 15 /Technical Criteria		A. The firm to have prior experience and expertise in the last 10(ten) financial years ending with 2020-2021 as follows: a) having completed over	We request you to kindly amend the clause as below: a) Having completed over all bio mining/bio remediation/ processing of mixed solid waste of at	No change is contemplated.

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Clarifications Sought	Reply
			<p>all biomining/bio-remediation of at least 30 (thirty) lakhs tons of legacy waste, including disposal of excavated and segregated material;</p> <p>AND</p> <p>b. having completed at least one project of dump site bio-remediation/bio-mining, including disposal of excavated and segregated material, construction of Engineered landfill for disposal of rejects involving minimum of 10 (ten) lakhs MT of legacy waste quantity.</p>	<p>least 20 lakhs m3 of waste.</p> <p>AND</p> <p>b. Having completed at least one project of construction of engineered landfill for disposal of rejects involving 10 lacs MT of any waste quantity/closer of dump site involving 10 lacs MT of waste/Development of engineered landfill facility for disposal of 10 lacs MT of waste.</p>	

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85	4.Pg31/ Cl4.3.3		Technical Evaluation : The tender committee shall evaluate Technical Bids and award marks as follows:	We request you to kindly amend the table as below.	See corrigendum																																				
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86				On site construction of leachate treatment plant for the leachate management. Kindly provide last six month leachate generation data from the capped legacy waste site.	Data is not available
87				Request you to kindly provide the following information for further proper scurrility of tender. <ul style="list-style-type: none"> <li>Waste characterizations profile depth and area. We understand that fresh waste is dumped up to 2012 and then after no fresh waste was dumped in the capped area.</li> <li>Based line contour survey of natural ground level.</li> <li>How much area could be provided by GHMC for installation of processing plant.</li> </ul>	<ul style="list-style-type: none"> <li>Waste characterization profile depth wise is not available. Area of capped dump is as per RFP document.</li> <li>Base line contour survey of ground level not available.</li> <li>Site for installation of processing plant is provided as per the prevailing site condition.</li> </ul>
88				What is source of fund, weather fund is allocated for this project.	Funds will be provided from GHMC general fund and proposed annually in the general budget.

  
P<sub>2</sub> Commissioner,  
GHMC  
2/3

## GREATER HYDERABAD MUNICIPAL CORPORATION (GHMC)

CORRIGENDUM NO. 01

RFP Notice NIT No. 13/SE(SWM)/GHMC/2021-2022 dated 28.03.2022.

**Disposal of Legacy Waste from scientifically capped Jawaharnagar legacy dumpsite through Bio-mining and Bioremediation for land reclamation, resource recovery and suitable disposal of residual solid wastes as per SWM Rules 2016**

Sl No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Amended clause
1	Page 2 / Data sheet Sl.no.9		Last date and time for submission of the proposal : 13.05.2022 at 16.00(IST)	13.07.2022 at 16.00 (IST)
2	Page 3/ data sheet Sl.no. 16		Site preparation, mobilization & installation of machinery and obtaining regulatory clearances: 3 months	Site preparation, mobilization & installation of machinery and obtaining regulatory clearances: 4 calendar months
3	Page 3/ data sheet Sl.no.18	Total project completion period	36 months from date of signing of agreement including initial 3 months for site preparation, mobilization of men and machinery.	36 calendar months from the date of signing of agreement including initial 4 months ....
4	Page no.4 / data sheet Sl.no.19		Total Waste Quantity; ...Authority guarantee for 60 lakh metric tones waste in any case.	Total Waste Quantity; ...Authority guarantee for 60 lakh metric tones waste in any case.  Contour survey map for the completed capping is attached to
5	Pg4/ Bid Data sheet Sl. No. 21		Construction of Engineered Landfill : To be developed by the bidder at their own cost at bidder's own site. No separate payment shall be made for the same.	Construction of Engineered Landfill: In case the successful bidder fails to adopt zero residue model and need to develop engineered landfill/ SLF, the same shall be developed at it's own land outside the project site at it's own cost. No separate payment shall be made for the same. The Bidder shall furnish a certificate on its letter head stating that it possessed or will acquire own/ leased land for landfill construction. Further, the successful bidder shall furnish proof of own/lease land document at the time Agreement.
6	Pg 10/ Cl. 1.1.7	Introduction	... execute the bio mining and bioremediation work by removing the above layers of cap as per the applicable norms or existing practices globally, if any or the guidelines issued from time to time by the regulatory authorities such as CPCB/ TSPCB or any other agency on behalf of the Authority along with utilization or dismantling of the following allied works:...	... execute the bio mining and bioremediation of legacy waste which was already capped as per the applicable norms or existing practices globally, if any or the guidelines issued from time to time by the regulatory authorities such as CPCB/ TSPCB including the following allied works:...

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7	Page no.10 /clause 1.1.6		... bio-mining and bio-remediation in the shortest possible time of 36 months ....	... bio-mining and bio-remediation in the shortest possible time of 36 calendar months ....																														
8	Page no.10 /clause 1.1.8		....The contract shall be awarded to the successful bidder for a period of 36 months ....	....The contract shall be awarded to the successful bidder for a period of 36 calendar months ....																														
9	Pg11 / Cl 1.1.8.2	Introduction-Terms of Reference	Reclamation of 100% of land below the capped dump by stabilization of sub soil as per the requirements/ guidelines ....	Reclamation of 100% of land occupied by the capped dump as per the requirements / guidelines ....																														
10	Page 17, Clause 2.2 Sl.9	Eligibility and Technical Qualifications	The Bidder should have an Average Annual Turnover of INR 1000 (thousand) crores ....	The bidder should have an Average Annual Turnover of INR 500 (five hundred) crores ....																														
11	Page 17, Cl 2.2 <b>New clause inserted at Sl.13</b>	General		The Bidder shall furnish a certificate on its letter head stating that it possessed or will acquire own/ leased land for landfill construction																														
12	Pg 31/ Cl 4.3.3		Technical Evaluation: The tender committee shall evaluate Technical Bids and award marks as follows. <table border="1"> <thead> <tr> <th>S.No</th> <th>Description of Parameters</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td><b>Bidder's average annual turnover in the last 3 financial years</b></td> <td>15</td> </tr> <tr> <td></td> <td>(i)INR 1000 Cr.</td> <td>10</td> </tr> <tr> <td></td> <td>(ii)INR 2000 Cr or more.</td> <td>15</td> </tr> <tr> <td></td> <td>In between (i) and (ii) above, on pro-rata basis</td> <td></td> </tr> </tbody> </table> <p>....</p>	S.No	Description of Parameters	Marks	1.	<b>Bidder's average annual turnover in the last 3 financial years</b>	15		(i)INR 1000 Cr.	10		(ii)INR 2000 Cr or more.	15		In between (i) and (ii) above, on pro-rata basis		Technical Evaluation: The tender committee shall evaluate Technical Bids and award marks as follows. <table border="1"> <thead> <tr> <th>S.No</th> <th>Description of Parameters</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td><b>Bidder's average annual turnover in the last 3 financial years</b></td> <td>15</td> </tr> <tr> <td></td> <td>(i)INR 500 Cr.</td> <td>10</td> </tr> <tr> <td></td> <td>(ii)INR 1000 Cr or more.</td> <td>15</td> </tr> <tr> <td></td> <td>In between (i) and (ii) above, on pro-rata basis</td> <td></td> </tr> </tbody> </table> <p>....</p>	S.No	Description of Parameters	Marks	1.	<b>Bidder's average annual turnover in the last 3 financial years</b>	15		(i)INR 500 Cr.	10		(ii)INR 1000 Cr or more.	15		In between (i) and (ii) above, on pro-rata basis	
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13	Page 33 clause 4.5.5		... The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Agreement.	... The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Agreement. Draft agreement prepared in accordance with the RFP will be handed over to the successful bidder.																														
14	Pg 34/ Clause 4.9	Stamp Duty, Legal Charges and Stationary Charges	The Bidder shall pay stamp duty on the contract and legal & stationery charges ....	Deleted																														
15	Pg 37/ Cl 6.3 A	Project Milestones	<table border="1"> <thead> <tr> <th>S.No.</th> <th>Period</th> <th>Target % completion</th> </tr> </thead> <tbody> <tr> <td>i.</td> <td>First 3 months</td> <td>Mobilization</td> </tr> <tr> <td>ii.</td> <td>Quarter 1</td> <td>5%</td> </tr> <tr> <td>iii.</td> <td>Quarter 2</td> <td>5%</td> </tr> <tr> <td>iv.</td> <td>Quarter 3</td> <td>5%</td> </tr> </tbody> </table>	S.No.	Period	Target % completion	i.	First 3 months	Mobilization	ii.	Quarter 1	5%	iii.	Quarter 2	5%	iv.	Quarter 3	5%	<table border="1"> <thead> <tr> <th>S.No.</th> <th>Period</th> <th>Target % completion</th> </tr> </thead> <tbody> <tr> <td>i.</td> <td>First 3 months</td> <td>Mobilization</td> </tr> <tr> <td>ii.</td> <td>Quarter 1 (1<sup>st</sup> month for mobilization)</td> <td>3%</td> </tr> </tbody> </table>	S.No.	Period	Target % completion	i.	First 3 months	Mobilization	ii.	Quarter 1 (1 <sup>st</sup> month for mobilization)	3%						
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			....	iii.	Quarter 2	6%
				iv.	Quarter 3	6%
				....		
16	Pg 37/ Cl 6.3	Project Milestones	Considering 33 months duration for project completion excluding initial 3 months ....	Considering 32 calendar months duration for project completion excluding initial 4 months ....		
17	Pg 37/ Cl 6.4 Sl. No. 3	Penalty for Non Compliance	Penalty Description: Non Compliance against disposal mechanism as prescribed in the scope....	Penalty Description: Non Compliance against disposal as prescribed in the scope....		
18	Pg 37/ Cl 6.4 Sl. No. 3	Penalty for Non Compliance	Penalty Amount: 50% of the value of bills certified for three (03) months....	Penalty Amount: 50% of the value of work for three (03) months....		
19	Pg 37/ Cl 6.4 Sl. No. 7	Penalty for Non Compliance	Penalty Description: Accumulation of processed material for more than 15 days at the facility. (applicable from 2 <sup>nd</sup> Quarter)	Penalty Description: Accumulation of more than 10 % of the cumulative quantity processed (applicable from 2 <sup>nd</sup> Quarter)		
20	Pg 41/ Cl 7.6 (b)	Release from Performance	the sum payable by the Employer to the Contractor shall be the same as would have ....	the sum payable by the Authority to the Contractor shall be the same as would have ....		
21	Pg 45/ Cl 10.3	Delayed Payments	... within the period set forth therein, and if no such period is specified, within 60 (sixty) days of receiving a demand along with all necessary particulars.	... within the period set forth therein, and if no such period is specified, within 30 (thirty) days of receiving a demand along with all necessary particulars.		
22	Pg 46/ Inserted new "Note" after clause 10.7			Note: The words "This Agreement or Agreement" mentioned in this document means the agreement between the Authority and the successful bidder in accordance with this RFP.		
23	Pg 69	Form 12: Format for Letter For Acceptance (LOA)	Please note that the time allowed for carrying out the work as entered in the bid is 36 months ....	Please note that the time allowed for carrying out the work as entered in the bid is 36 calendar months ....		
24	Pg 82 / Point 2 of Scope	Terms of Reference of Biomining	Reclamation of 100% of land below the capped dump by stabilization of sub soil as per the requirements/ guidelines ....	Reclamation of 100% of land occupied by the capped dump as per the requirements / guidelines ...		
25	Pg 82 /TOR – Scope 3	Terms of Reference of Biomining- Scope of Work	Construction of required landfill facility in the own land of the Bidder for the disposal of rejects including all synthetic liners and all other wastes resulting from dismantling of allied works of the existing scientific capping.	The successful bidder may adopt zero residue model. If not, shall develop SLF at it's own land outside the project site for the disposal of rejects.		

SI No	Pg No / CI No.	Description of Item	Existing clause as per RFP	Amended clause
26	Pg 82	Terms of Reference of Biomining	... bidder ("the Contractor") for a period of 36 months reckoned from the date of signing of contract agreement....	... bidder ("the Contractor") for a period of 36 calendar months reckoned from the date of signing of contract agreement....
27	Pg 83/ Part A .iii	Terms of Refer of Biomining	Disconnecting landfill gas collection wells (in phased manner, if necessary) or decommissioning of landfill gas management system, as necessary, subject to ....	Disconnecting leachate and landfill gas network (in phased manner, as necessary) subject to ....
28	Page 83/ part A (1) (iv)	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	iv. Soil fractions, liners etc are to be stored temporarily at the storage depot or designated....	iv. The Authority may direct the successful bidder to store or stockpile temporarily the removed items at (i) & (ii) above at the storage depot or designated area in the site and may declare to consume a portion (not more than 50%) of such capping items as useful for internal purposes for the use of the Contractor/ otherwise (by the Authority or it's representative), on which quantity no payment shall be made.
29	Page 83/ Part A.2.1		The Bidder needs to remove entire legacy waste present in the capped legacy dumpsite at Jawaharnagar and dispose the extracted material, without stacking them at site beyond 15 days, (applicable from 2 <sup>nd</sup> quarter).	The successful bidder shall dispose the extracted material including rejects from the capped legacy dumpsite at Jawaharnagar such that the non- disposed quantity after processing shall not be greater than 10% of the cumulative quantity processed till that point of time.
30	Page 85/ Part A 2.13	Terms of Reference of Bio-mining- Key Roles & Responsibilities of the Successful Bidder (Contractor)	The Bidder shall channelize the recovered/ segregated material from the legacy waste to the identified vendors/parties and disposal of inert/rejects as per CPCB Guidelines, without stacking them at site for more than 15 days.	The Bidder shall channelize the recovered/ segregated material to the identified vendors / parties and disposal of inert / rejects into it's own landfill (if necessary) as per CPCB Guidelines. The disposed/ stockpiled quantity after processing shall not be greater than 10% of the cumulative quantity processed till that point of time.
31	Page 86/ Part A 2.14		Responsibility of packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all useful material within 15 days of segregation, at own cost, shall be the responsibility of the Bidder.	Responsibility of packing, storing, stacking, selling, diverting for recycling, marketing and disposal of rejects into landfill shall be the responsibility of the bidder at it's own cost subject to condition at Part A (1) (iv).
32	Page 90/ 3.1		Land reclamation and Engineered Sanitary Landfill development:  The Bidder shall reclaim entire land of 125 acres to natural form and take necessary step to remediate the soil, if at all any contamination is found in it.	The bidder shall reclaim entire land occupied by the capped dumpsite to natural form and shall handover the same to the Authority.

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Amended clause
33	Pg.91/ Part A Cl. 3.10		The Bidder need to ensure that rainwater, which is supposed to be accumulated in ....	The Bidder need to ensure that rain water shall be drained out during the contract period.
34	Pg 94 / Part B Cl 6.2.9	Terms of Reference - General Roles & Responsibilities of the Bidder	No work at night shall be done. Special permission shall be taken beforehand from the appropriate authority if needed.	Work may be carried out at night duly taking necessary precautionary measures as directed by the Engineer in-charge and/ or the Independent Agency.
35	Pg95/ Part B - 6.3.2	Part B- General Roles & Responsibilities of the Bidder	Rectifying defects Authority may instruct the Bidder to search for a Defect and to uncover and test any work that the Employer considers may have a Defect.	Rectifying defects: The bidder shall rectify the defects observed by the Authority / Independent Agency during the work. Further, the Authority may instruct to conduct necessary tests and uncover possible defects and search for remedial measures.
36	Pg 95/ Part B 6.3.3	Quality Control	Tests: If the Employer instructs the Bidder to carry out a test not specified in the ....	Tests: If the Authority instructs the Bidder to carry out a test not specified in the ....
37	Pg98/ Part B 6.5.19	General Roles & Responsibilities of the Bidder	After the land reclamation, the Bidder needs to carry out testing of the soil underneath ....	deleted
38	Page 99/ Part C 7.1.4		... shall be completed within 3 months from the signing of the Contract Agreement. After these 3 months, the reclamation of the sites shall be done within 33 working months.	....shall be completed within 4 calendar months from the signing of the Contract Agreement. After these initial 4 months, the reclamation of capped legacy dumpsite shall be completed within 32 calendar months.
39	Pg.100/ Part C- Cl. 7.1.8	Terms of Reference of Bio-mining - Obligations of Parties	...Authority may assist in providing single point connection for electricity requirements from its existing power station near Ghazipur site.	...Authority will facilitate in providing electricity connection at the site from the respective Government Departments.
40	Pg.101/ Part C Cl. 7.3		Disposal of Inert material: GHMC, in consultation with the NHAI authorities, may finalize the modalities of using inert material for highway construction purpose. In such case, the inert material (30 mm down size and without any organic material) shall be channelized to ongoing NHAI projects in and around Hyderabad as per their requirement.	Disposal of Inert material: GHMC, in consultation with the external authorities, may facilitate for utilizing inert material in and around Hyderabad. But, it is the total responsibility of the bidder for disposal of the inert material as per the terms & conditions of the document.
41	Page 102/ Part C 7.3 - Note point2, 3	Part C - Obligation of parties- Miscellaneous - Other Assistance by the	Note: 2. In all cases, where the authority is facilitating disposal.... 3. Irrespective of point (b) above, the revenue generated (if any) by the disposal of excavated material to the	Note 2. In all cases where the Authority is facilitating disposal of material after biomining between the bidder and external agencies in respect of disposal of material after

SI No	Pg No / Cl No.	Description of Item	Existing clause as per RFP	Amended clause
		Authority	external agencies, shall go to the Authority only.	biomining, the same shall be undertaken on the same terms and conditions that was finalized between Authority and external agencies. In such cases, the revenue generated (if any) by the successful bidder from such external agencies shall go to the Authority only.  3.deleted
42	Pg.104/ Annexure II-Cl. 1.v	Engineered Sanitary Landfill Design Specification	A Non-woven Geo-textile Layer to be laid over the gravel layer	A Non-woven Geo-textile Layer of thickness 285 gsm to be laid over the gravel layer

*Dals*  
Re/ Commissioner,  
GHMC

3/3

# GREATER HYDERABAD MUNICIPAL CORPORATION

CC Complex, Tank bund Road, Lower Tankbund, Hyderabad - 500 063

WEBSITE: [www.ghmc.gov.in](http://www.ghmc.gov.in); TELEPHONE: 040 - 2322 5397



From,  
The Commissioner,  
Greater Hyderabad Municipal Corporation,  
1<sup>st</sup> Floor, CC Complex  
Lower Tankbund Road,  
Hyderabad, Telangana -500063

To,  
Dr. D. N Singh,  
Institute Chair Professor,  
Department of Civil Engineering,  
India Institute of Technology Bombay,  
Mumbai- 400076  
Cell: 9820758508  
Email: dns@civil.iitb.ac.in

Lr.No. SWM/0049/2021/AE-2(SWM)-HO

Dated : .04.2022

Sir,

Sub	:	GHMC - SWM - Hon'ble NGT, New Delhi orders Dt: 14.02.2020 in OA No. 606/2018 for bio-mining of capped legacy waste of GHMC at Jawaharnagar - Technical advisory/ consultancy services from IIT Bombay- Req. - Reg.
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Anent the subject cited above and in continuation to the detailed presentation given during your visit to the capped legacy dumpsite of GHMC at Jawaharnagar on 15.04.2022 for carrying out preliminary assessment of the ground situation and understanding the scenario, you are requested to provide the following technical advisory services to GHMC as per the institutional consultancy norms of IIT Bombay:

- (i) Methodology to be adopted for bio-mining of the already capped legacy waste dumpsite of GHMC at Jawaharnagar and
- (ii) Assisting GHMC in technical evaluation of the bids received in response to the RFP tenders floated by GHMC.

It is requested to communicate the necessary charges for consultation/ advisory services, if any. Quick response on the above request of GHMC is appreciated in view of the critical nature of the subject and pressing timelines.

Further, R. Sreenivasa Reddy, Executive Engineer, Solid Waste Management, GHMC- Head Office (Contact: 7032911018) may be contacted in case of additional details/ clarification.

Yours faithfully,

  
Commissioner, GHMC



2/2



भारतीय प्रौद्योगिकी संस्थान मुंबई

पवई, मुंबई-400 076, भारत

Indian Institute of Technology Bombay

Powai, Mumbai-400 076, India

दूरभाष/Phone : (+91-22) 2572 2545

फैक्स/Fax : (+91-22) 2572 3480

वेबसाइट/Website : www.iitb.ac.in



May 28, 2022

**The Commissioner**  
**Greater Hyderabad Municipal Corporation**  
 Hyderabad  
 Telangana

**Subject:** Proposal for rendering technical advisory services in the bid process for Biomining of capped legacy dumpsite of GHMC at Jawaharnagar including assessment studies on suitability for Bio-mining by retrieval and characterization of Decomposed Municipal Solid Waste

**Reference:** 1. Email received from Executive Engineer SWM GHMC dated May 24, 2022 and 2. my email dated April 22, 2022, addressed to Executive Engineer SWM GHMC (in response to their email dated April 21, 2022)

Dear Sir,

Greeting from IIT Bombay!

As desired, kindly find attached to this letter a detailed proposal for conducting a comprehensive study to establish the *possibility of Bio-mining at Jawaharnagar, Hyderabad*. It would be my utmost pleasure to be associated with **GHMC** in this context and technical evaluation of the bids submitted by various agencies for biomining, at a later date.

Please feel free to revert with your suggestions/queries, if any.

Best Regards!

*d.n.singh*

**Dr. D. N. Singh**, FNAE, F. ASCE, FICE (UK)  
**D.L. Shah Chair Professor for Innovation**  
 Department of Civil Engineering  
 Indian Institute of Technology Bombay  
 Powai, Mumbai- 400 076.  
[dns@civil.iitb.ac.in](mailto:dns@civil.iitb.ac.in)  
 Cell: +91-9820758508  
[www.civil.iitb.ac.in/~dns](http://www.civil.iitb.ac.in/~dns).

## Proposal

### **Background**

Landfill biomining (LFM) of existing dumpsites and landfills has been encouraged to avoid the contamination of geoenvironment (soil, groundwater and air), recover the precious land occupied by these facilities and utilization of landfill mined residues (LMRs) such as plastics, glass, metals and combustibles and soil like materials for different applications. Nevertheless, to decide on the feasibility of LFM, it is a crucial aspect to ascertain the state of the MSW in the landfill/dumpsite. This would not only help in understanding the utilization potential of LMRs but also help in finding the answers to questions such as whether the MSW in the landfill is suitable to be mined, what are the possible issues that can arise during mining operations, and the methodology to be adopted for landfill mining, etc. In this context, the state of MSW in landfill/dumpsite can be determined easily by characterizing the samples of DMSW collected from a landfill for their physical and chemical characteristics. Based on these investigations, a further decision on LFM should be taken. Further, geophysical investigations such as Multi-channel Analysis of Surface Waves (MASW) and Electrical resistivity tomography (ERT) would help in understanding the subsurface properties of the landfill. This would help in the identification of leachate and gas pockets that could possibly become an issue during mining activity if not known in advance.

As per the directions of the National Green Tribunal (NGT) bench, Greater Hyderabad Municipal Corporation (GHMC) is prepared to take up the biomining of capped Jawaharnagar Dumpsite, Hyderabad and called for tenders. However, as the dumpsite is capped recently (i.e., 2018), the GHMC approached Prof. D. N. Singh, Department of Civil Engineering, Indian Institute of Technology Bombay for help in several technical aspects such as evaluating the readiness of the capped dumpsite for biomining, evaluating the technical proposal received for biomining operation, establishing the methodology for biomining, etc. Keeping these in view, a scientific study on capped Dumping site at Jawaharnagar, Hyderabad is planned by the Indian Institute of Technology Bombay under the supervision of Prof. D. N. Singh, IIT Bombay. In this regard, to evaluate the readiness of the capped dumpsite at Jawaharnagar, Hyderabad for biomining, a study has been proposed by IIT Bombay. The technical and financial aspects of the study proposed are mentioned below.

### **Objectives**

Rendering technical advisory service in all aspects on proposed biomining of capped legacy dumpsite at Jawaharnagar, Hyderabad

### **Scope of work**

The broad scope of this proposal is to help GHMC in bid process and carry out geophysical investigations, retrieval, and characterization of the decomposed MSW (DMSW) samples at Jawaharnagar landfill, Hyderabad.

The detailed scope of the work is mentioned below:

1. Guiding GHMC in bidding process for the work of bio mining of capped legacy dumpsite.
2. Conducting geophysical investigations (MASW and ERT) on the dumpsite at different locations to understand the subsurface features.
3. Extensive sampling of DMSW samples from different locations.
4. Segregation and characterization of the DMSW samples for their Physico-chemical parameters.
5. Establishing the present state of the decomposition of the MSW.
6. Characterization of leachate samples (if any) during the sampling of the DMSW from different boreholes.
7. A critical analysis of the way forward.

### **Decomposed MSW Sampling methodology**

The top cover (including green and clay) and other geotextile layers will be removed manually. Followed by a flight auger ( $\phi \approx 300$  mm), attached to a pile-driving unit, will be inserted in the capped landfill to drill borehole using hydraulic equipment. The DMSW and leachates obtained at different depths of the borehole will be collected. Borehole drilling from the top of the landfill will be initiated by inserting a mild steel casing. The casing helps in stabilizing the borehole during the drilling operation. The drilling would be continued as deep as possible based on the site conditions, keeping in view the safety of buried utilities. Sampling of MSW will be done @ every 2-3 m or wherever change in the strata. The boreholes should be sealed again after the sampling is completed by the landfill operator. The retrieved samples will be spread on a clean geomembrane (near the borehole on the two loops) and divided

into four quarters with the help of a shovel. Furthermore, the MSW samples ( $\approx 5\text{-}10$  kg), would be randomly collected from *three quarters* for laboratory testing. The leftover samples of MSW should be backfilled into the boreholes. Depending upon the state of the exhumed MSW samples, their storage at  $4\text{ }^{\circ}\text{C}$ , in a refrigerator at the site, will be done. Subsequently, the samples will be transported to IIT Bombay laboratory for their characterization, as mentioned in the following.

### **Characterization of the MSW samples**

#### *Physical characteristics*

The DMSW will be sieved through 20 mm size sieve and retain will be manually segregated into various fractions such as plastics, textiles, metals, glass, paper, etc. Further, the  $<20$  mm fraction considered as soil like materials will be tested for moisture content and specific gravity.

#### *Chemical characteristics*

The biochemical processes involved in the decomposition of MSW in a landfill transform the organic matter (OM) present in it. With this in view, the chemical parameters of MSW, namely, volatile solids, elemental content, total organic carbon, ammonium and nitrate nitrogen, and heavy metals, will be performed on the MSW samples retrieved from the landfill. In addition to characterisation of MSW, few leachate samples will be tested for their chemical parameters (viz., pH, EC, TOC, COD, sulfate, phosphate, nitrate-nitrogen, ammonium-nitrogen and heavy metals).

#### ➤ **List of experiments to be performed**

<b>Sample/test</b>	<b>Number</b>	<b>Parameters</b>
DMSW	150 (samples)	Volatile solids, elemental content, total organic carbon, inorganic carbon, ammonium and nitrate nitrogen, and heavy metals (total).
Leachate samples	150 (samples)	pH, EC, TDS, salinity, TOC, COD, sulfate, phosphate, nitrate-nitrogen, ammonium-nitrogen, heavy metals
Geophysical investigations	1500 meters	MASW and ERT

Based on the above-mentioned comprehensive testing protocol, the readiness of the Jawaharnagar dumpsite for booming will be established. If the dumpsite can be mined, the recommendations for initiating mining will be submitted to GHMC. Please

note that Environmental Geotechnology Laboratory, Dept. of Civil Engg., IIT Bombay, would be glad to witness/guide the agency that would be executing the biomining.

### **Duration of study**

About 15 months from the date of sanctioning of work order or releasing the first installment (whichever is later)

### **Payment Terms and Conditions**

- 70% payment along with work order and the invoice from Dean R&D, IIT Bombay.
- 30% after six months from commencement of work
- Project commencement date starts from the day of first payment receipt

### **Other Terms and Conditions**

- GHMC should instruct the landfill operator (M/s. Ramky Enviro Engineers Ltd.) to provide a local coordinator to provide relevant information related to the Jawaharnagar landfill (viz., location of underground utilities, the height of landfill, thickness of final cover, etc.).
- GHMC to direct M/s. Ramky Enviro Engineers Ltd. to provide adequate number of helpers (unskilled force) at the landfill site during sampling.
- GHMC should provide refrigerators and sample storage space/facility in a closed room at their site office.
- Permissions required for accessing the site during the entire course of study to be provided by GHMC.
- Temporary stay of the site workers (most probably hailing from Mumbai) to be provided at the site so as to accelerate work and avoid unnecessary commuting.
- Local transportation/logistics to be provided by M/S Ramky Enviro Engineers Ltd. during the execution of the project.

**Budgetary Details (in INR)**

<b>S.No.</b>	<b>Item(s)</b>	<b>Rate</b>	<b>Unit</b>	<b>Cost</b>
01	Geophysical investigations (MASW and ERT)	1600 per meter	1500 meters	24,00,000
02	Mobilization of machinery at the landfill, Shifting of drilling rigs, etc	6,50,000 (lumpsum)	-	6,50,000
03	Steel casing pipes	1,80,000 per number	5 nos'	9,00,000
04	Borehole drilling and sample collection	7,500 per meter	450	33,75,000
05	Testing charges (including consumables, manpower and outsourcing charges)	26,000 per sample	150	39,00,000
06	Manpower charges including assistance in bid process	25,00,000 lumpsum	-	25,00,000
07	Travel and Dearness Allowances	9,00,000 Lumpsum	-	9,00,000
08	Contingency	@ 5% of the above cost	-	7,31,250
09	Institute Overhead charges	@30% of total cost	-	46,06,875
<b>Total Cost</b>				<b>1,99,63,125</b>

**Total Budget = INR 2,00,00,000 + GST (if applicable).**



**LETTER OF ACCEPTANCE CUM WORK ORDER**

From:  
 The Commissioner,  
 Greater Hyderabad Municipal Corporation,  
 4<sup>th</sup> floor, CC complex,  
 Lower Tank bund road,  
 Hyderabad.  
 Telangana-5000 63.

To:  
 Dr. D N Singh,  
 D.L. Shah Chair Professor for  
 Innovation,  
 Dept. of Civil Engineering,  
 Indian Institute of Technology, Bombay,  
 Powai, Mumbai-400076.  
 Mail: dns@civil.iitb.acin

Lr No. SWM/0049/2021/AE-2(SWM)-HO

Dated: 4.06.2022

Gentleman,

Sub : GHMC - Proposal submitted by you for providing technical advisory services in the bid process for biomining of capped legacy dumpsite of GHMC at Jawaharnagar including assessment studies on suitability for Bio-mining by retrieval and characterization of Decomposed Municipal Solid Waste - Accepted by GHMC -LoA/ Workorder issued - Reg.

Ref : 1. T/o. Lr. no SWM/0049/2021/AE-2(SWM)-HO dt:21.04.2022  
 2. Lr No. nil dated 28.05.2022 of Dr. D N Singh received through mail on 28.05.2022

\*\*\*\*\*

It is to inform that the proposal submitted by you in response to the letter at reference 1<sup>st</sup> cited for providing technical advisory services in the bid process for biomining of capped legacy dumpsite of GHMC at Jawaharnagar including assessment studies on suitability for Bio-mining by retrieval and characterization of Decomposed Municipal Solid Waste with consultancy charges of Rs.1,99,63,125/- with 15 months as period of work is approved and therefore this Letter of Award (LoA) is issued with the following payment schedule:

- i. 60% payment as 1<sup>st</sup> installment - upon receipt of invoice from Dean R&D, IIT Bombay for commencement of work.
- ii. 30% payment as 2<sup>nd</sup> installment - after six months from commencement of work.
- iii. 10% payment after submission of final report.

In this regard, you are requested to accept and acknowledge this LoA within (03) days from date of this letter and communicate back to GHMC. Further, you are requested to enter into an MoU with the Superintending Engineer (SWM), GHMC for providing the services on the subject matter.

  
 Commissioner, GHMC



Executive Engineer SWM GHMC <eeswmc@gmail.com>

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## Initial site visit report-GHMC

1 message

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**Prof. Devendra Narain Singh** <dns@civil.iitb.ac.in>

Tue, Jul 12, 2022 at 4:39 PM

Reply-To: dns@civil.iitb.ac.in

To: Executive Engineer SWM GHMC <eeswmc@gmail.com>, Office of AC HEALTH <achealth19.ghmc@gmail.com>, commissioner ghmc <commissionerghmc2013@gmail.com>

Dear Sir/Madam,


Please find attached to this email the site visit report.

Hope you will find it useful.

Regards!

DNS

---

 **Report-1 12.07.2022.pdf**  
208K

Interim Report

on

**Assessment studies on Suitability of Decomposed  
Municipal Solid Waste for Bio-mining at Jawaharnagar  
Capped Dumpsite, Hyderabad**

*Submitted to*

**Greater Hyderabad Municipal Corporation (GHMC)**

*By*

**Goli Venkata Siva Naga Sai**

**Mrunal Sunil Bokade**

(Research Scholars)

and

**Prof. D. N. Singh**

Principal Investigator

&

D.L. Shah Chair Professor for Innovation



**ENVIRONMENTAL GEOTECHNOLOGY LABORATORY**

**DEPARTMENT OF CIVIL ENGINEERING**

**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**

**MUMBAI- 400076, INDIA**

**July 2022**

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## **1. Background**

Landfill biomining (LFM) of existing dumpsites and landfills has been encouraged to avoid the contamination of geoenvironment (soil, groundwater, and air), recover the precious land occupied by these facilities, and utilization of landfill mined residues (LMRs) such as plastics, glass, metals and combustibles and soil-like materials for different applications. Nevertheless, to decide on the feasibility of LFM, it is crucial aspect to ascertain the state of the MSW in the landfill/dumpsite. This would not only help in understanding the utilization potential of LMRs but also help in finding the answers to questions such as whether the MSW in the landfill is suitable to be mined, what are the possible issues that can arise during mining operations, and the methodology to be adopted for landfill mining, etc. In this context, the state of MSW in landfill/dumpsite can be determined easily by characterizing the samples of DMSW collected from a landfill for their physical and chemical characteristics. Based on these investigations, a further decision on LFM should be taken. Further, geophysical investigations such as Multi-channel Analysis of Surface Waves (MASW) and Electrical resistivity tomography (ERT) would help in understanding the subsurface properties of the landfill. This would help in the identification of leachate and gas pockets that could possibly become an issue during mining activity if not known in advance.

As per the directions of the National Green Tribunal (NGT) bench, Greater Hyderabad Municipal Corporation (GHMC) is prepared to take up the biomining of capped Jawaharnagar Dumpsite, Hyderabad and called for tenders. However, as the dumpsite is capped recently (i.e., 2018), the GHMC approached Prof. D. N. Singh, Department of Civil Engineering, Indian Institute of Technology Bombay for help in several technical aspects such as evaluating the readiness of the capped dumpsite for biomining, evaluating the technical proposal received for biomining operation, establishing the methodology for biomining, etc. Keeping these in view, a scientific study on capped dumpsite at Jawaharnagar, Hyderabad is planned by the Indian Institute of Technology Bombay under the supervision of Prof. D. N. Singh, IIT Bombay. In this regard, to evaluate the readiness of the capped dumpsite at Jawaharnagar, Hyderabad for biomining, a study has been proposed by IIT Bombay. The technical and financial aspects of the study proposed are mentioned below.

## **2. Scope of work**

The broad scope of this proposal is to help GHMC in the bid process and carry out geophysical investigations, retrieval, and characterization of the decomposed MSW (DMSW) samples at Jawaharnagar landfill Hyderabad (referred to as JLH).

The detailed scope of the work is mentioned below:

- Guiding GHMC in the bidding process for the work of biomining of capped legacy dumpsite.
- Conducting geophysical investigations (MASW and ERT) on the dumpsite at different locations to understand the subsurface features.
- Extensive sampling of DMSW samples from different locations.
- Segregation and characterization of the DMSW samples for their Physico-chemical parameters.
- Establishing the present state of the decomposition of the MSW.
- Characterization of leachate samples (if any) during the sampling of the DMSW from different boreholes.
- A critical analysis of the way forward.

### 3. Reconnaissance survey

Based on the data shared by GHMC on 22.04.2022, a proposal has been prepared and shared by IIT Bombay to conduct the investigations within the above mentioned scope. The study broadly involves conducting geophysical (MASW and ERT) investigations, retrieval of the decomposed samples, and characterization of retrieved samples.

In this context, the IIT Bombay team along with the representatives of M/s. Ramky Enviro Engineers Ltd. (REEL), Environmental Protection Training and Research Institute, Hyderabad (EPRTI), and GHMC have visited the site to select the locations for conducting Geophysical investigations at the JLH site (refer to Figure 1). This exercise would help in selecting the subsequent locations for retrieval of the samples from the landfill without causing much harm to the existing cover systems.





**Figure 1. Photographs of the site and team taken during the visit**

#### **4. Geophysical Investigations**

Based on the site visit and the information given by the representatives of REEL, EPTRI, and GHMC, locations for the Geophysical investigations have been selected as represented in Figure 2. Please refer to Line number 1 to 5 (represented as L1 to L5). Lines L1 to L4 have been selected based on the maximum height of the landfill at these locations whereas L5 has been selected to identify the presence/absence of leachate pockets as it is a low-lying area previously and close to leachate ponds. As per the preliminary site survey, it is estimated that MASW and ERT investigations should be conducted for a total length of 3000 meters each.



**Figure 2 Google map of the JLH with locations selected for Geophysical investigations**

## **5. Retrieval of Decomposed MSW from JLH and characterization**

The top cover (including green and clay) and other geotextile layers will be removed manually. Followed by a flight auger (diameter ranging between 100 and 300 mm), attached to a pile-driving unit, will be inserted in the capped landfill to drill a borehole using hydraulic equipment. The DMSW and leachates obtained at different depths of the borehole will be collected. Borehole drilling from the top of the landfill will be initiated by inserting a mild steel casing. The casing helps in stabilizing the borehole during the drilling operation. The drilling would be continued as deep as possible based on the site conditions, keeping in view the safety of buried utilities. A sampling of MSW will be done at every 2-3 m or wherever changes in the strata. The boreholes should be sealed again after the sampling is completed by the landfill operator. The retrieved samples will be spread on a clean geomembrane (near the borehole on the two loops) and divided into four quarters with the help of a shovel. Furthermore, the MSW samples ( $\approx 5-10$  kg), would be randomly collected for *three quarters* for laboratory testing. The leftover samples of MSW should be backfilled into the boreholes. Depending upon the state of the exhumed MSW samples, their storage at 4 °C, in a refrigerator at the site, will be done. Subsequently, the samples will be transported to IIT Bombay laboratory for their characterization, as mentioned in the following.

### **5.1. Characterization of the MSW samples**

#### *5.1.1. Physical characteristics*

The DMSW will be sieved through 20 mm size sieve and retain will be manually segregated into various fractions such as plastics, textiles, metals, glass, paper, etc. Further, the

<20 mm fraction considered as soil-like materials will be tested for moisture content and specific gravity.

#### *5.1.2. Chemical characteristics*

The biochemical processes involved in the decomposition of MSW in a landfill transform the organic matter (OM) present in it. With this in view, the chemical parameters of MSW, namely, volatile solids, elemental content, total organic carbon, ammonium and nitrate nitrogen, and heavy metals, will be performed on the MSW samples retrieved from the landfill. In addition to the characterization of MSW, a few leachate samples will be tested for their chemical parameters (viz., pH, EC, TOC, COD, sulfates, phosphates, nitrate-nitrogen, ammonium-nitrogen, and heavy metals).

Based on the above-mentioned comprehensive testing protocol, the readiness of the JLH for booming will be established. If the dumpsite can be mined, the recommendations for initiating mining will be submitted to GHMC.

#### **Note:**

- The entire process of Geophysical investigations and submission of the report by the M/s. Fugro (India) Ltd., Mumbai will take 90-100 days, if the work doesn't get stopped due to rains.
- Based on this report, sampling of DMSW from the JLH would be conducted, which might get delayed due to the ongoing monsoon.
- The above-mentioned comprehensive testing protocol needs to be completed to know the readiness of the capped legacy dumpsite for biomining. It should be noted that going ahead with Biomining, by opening the existing scientifically capped dumpsite, otherwise might turnout to be dangerous and environmentally hazardous.

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## Evaluation Stages

### Current Tender Details

<b>Tender ID</b>	308642	<b>Enquiry/IFB/Tender Notice Number</b>	13/SE(SWM)/GHMC/2021-2022 dt:28.03.2022
<b>Name of Work</b>	Disposal of Legacy Waste from scientifically capped Jawaharnagar legacy dumpsite through Bio-mining and Bio-remediation for land reclamation, resource recovery and suitable disposal of residual solid wastes as per SWM Rules 2016		
<b>Tender Category</b>	Products	<b>Tender Evaluation Type</b>	Item Wise
<b>Tender Type</b>	OPEN - ICB	<b>Estimated Contract Value</b>	0
<b>Bid Submission Start Date &amp; Time</b>	01/04/2022 09:00 PM	<b>Bid Submission Closing Date &amp; Time</b>	13/07/2022 04:00 PM

### Supplier List/PQ Stage

Company Name	Action
No Suppliers Found	

[Back](#)

### Icons Representation

 [View Documents](#)       [EMD Details](#)       [Transaction Fee Details](#)

Information Technology, Electronics & Communications  
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Server Time: 08/08/2022 12:09:46 PM



<b>From</b> The Commissioner, Greater Hyderabad Municipal Corporation, 1 <sup>st</sup> floor MC Complex, Tank Bund Road, Hyderabad 500 063.	<b>To</b> The Commissioner, Indore Municipal Corporation, PVC5+PXP, Narayan Sing Saput Marg Square, Shivaji Market, Nagar Nigam, Indore, Madhya Pradesh 452007
--	---

Lr. No. SWM/0049/2021/AE-2(SWM)-HO

Dt: 28.05.2022

Madam,

**Sub :** GHMC – Solid Waste Management – Hon'ble NGT, New Delhi - Order Dt: 14.02.2020 in OA No. 606/2018 for Biomining of capped legacy waste at Jawaharnagar – Advise of CPCB to get guidance from other Municipal Corporations – Request to provide guidance - Reg.

**Ref :** 1. Orders of the Hon'ble NGT , New Delhi dated 14.02.2020 in OA 606/2018  
 2. Orders of the Hon'ble Supreme Court of India dated 31.01.2022 in Civil Appeal No.809-810/2022 (Dairy No.8943/2021)  
 3. T/o. Lr No.04/SE(SWM)/GHMC/2020 dt:18.02.2022 addressed to the MS, CPCB  
 4. Lr No.CP-99/143/2021-UPC-II-HO-CPCB-HO dt:24.03.2022 of the Addl. Director & DH-UPC- II.

\*\*\*\*\*

It is to bring to your kind notice that, GHMC has scientifically capped the 12 million MT legacy waste including development of required landfill gas & leachate management at Jawaharnagar, Medchal Malkajgiri (D), Telangana which is outside the GHMC boundary. Capping activity with a foot print of 125 acres was commenced in 2012 simultaneously by shifting the waste present in the total land parcel of about 339 acres to one side and by establishing the centralized MSW Treatment & Disposal facility in the reclaimed land of 214 acres for processing & disposing the day to day waste generated in the city.

Whereas, the Hon'ble NGT, New Delhi in its orders vide reference 1<sup>st</sup> cited directed GHMC to take up bio-mining instead of capping at legacy waste dumpsite of GHMC at Jawaharnagar (V), Medchal Malkajgiri (D), Telangana. Subsequently, the Hon'ble Supreme Court of India vide 2<sup>nd</sup> cited refused to pass any directions on the appeal made by GHMC.

Hence, GHMC approached the Central Pollution Control Board (CPCB) vide reference 3<sup>rd</sup> cited (**copy enclosed**) with a request to depute technical experts for advising and guiding GHMC on how to proceed further with bio-mining of already scientifically capped dumpsite since the CPCB Guidelines on Bio-mining dated June 2019 are applicable for open legacy dumpsites only. In response, CPCB vide reference 4<sup>th</sup> cited communicated to GHMC to get technical guidance from other Municipal Corporations which have successfully implemented bio-mining work in legacy waste dump sites.

In view of the above, it is requested to convey whether the Indore Municipal Corporation has executed any works of bio-mining of capped legacy dumpsite and if so, it is requested to share the details regarding the methodology adopted for bio-mining of capped legacy dumpsite in view of many challenges involved in Bio-mining of already capped legacy dumpsite vis-a-vis Bio-mining of open legacy dumpsites.

Yours faithfully

  
**Commissioner**  
**GHMC**



सत्यमेव जयते

भारतसरकार  
GOVERNMENT OF INDIA  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE  
Integrated Regional Office,  
Aranya Bhavan, Opp RBI, Saifabad, Hyderabad, Telangana 500004  
e-mail: [iro.hyderabad-mefcc@gov.in](mailto:iro.hyderabad-mefcc@gov.in)



F.No. 4-TSB244/2022-HYD/ 425  
Date : 05<sup>th</sup> May, 2022

To,

The Special Chief Secretary to the Government,  
Environment, Forests, Science & Technology Department,  
Telangana State Secretariat, Hyderabad.

**Subject:** Diversion of 0.6228 ha of forest land for laying approach road to the proposed Municipal Solid Waste (MSW) treatment and disposal facility of GHMC at Nallavelly(V), Nallavelly RF, Sangareddy Dist., in favour of Superintending Engineer (SWM), GHMC, Hyderabad.-reg

Madam,

Please refer to the State Government's letter Nos. 39/For.I(1)/2022 dated 24.01.2022 and 39/For.I(1)/2022 dated 07.04.2022 and online proposal No. FP/TG/ROAD/46627/2020 seeking prior approval of the Central Government for diversion of forest land in accordance with Section '2' of Forest (Conservation) Act, 1980 for the above mentioned project.

The User Agency proposed to construct approach road to the proposed Municipal Solid Waste (MSW) Treatment and Disposal Facility of GHMC with the dimensions of 510.492 m length and 12.2 m width. It is proposed to have 7m carriage way plus 1m each shoulder on either side of road (BT portion) and drainage of 1.6m on either side in the Nallavelly RF area.

After careful consideration of the proposal submitted by the State Government, I am directed to convey the Central Government's in principle approval (**Stage-I**) under Section '2' of Forest (Conservation) Act, 1980 for diversion of 0.6228 ha of forest land for laying approach road at Nallavelly(V), Nallavelly RF, Sangareddy Dist., in favour of Superintending Engineer (SWM), GHMC, Hyderabad, subject to the following conditions: -

- (i) Legal status of the diverted forest land shall remain unchanged.
- (ii) Demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered at an interval of 20 meters at the cost of the User Agency.

dc

(iii) COMPENSATORY AFFORESTATION

- a. The State Forest Department shall carry out compensatory afforestation in the identified degraded forest land over an extent of **3.20 ha.** of degraded Forest area in Kodakanchi Reserve Forest of Sangareddy Range, at the cost of the User Agency.
- b. Degraded forest land identified for CA purpose and CA scheme shall not be changed without prior approval of the Central Government.

(iv) NET PRESENT VALUE:

- a. The State Government shall charge the Net Present Value of the diverted forest land measuring **0.6228 ha** from the User Agency as per the orders of the Hon'ble Supreme Court dated 30.10.2002, 01.08.2003, 28.03.2008, 24.04.2008 and 09.05.2008 in IA Nos.826 in 566 with related IA's in Writ Petition (Civil) No.202/1995 and **revised NPV as per the Ministry's guideline No.5-3/2011-FC(Vol-1) dated 06.01.2022 and clarification issued vide letter dated 19.01.2022.**
  - b. Additional amount of the Net Present Value (NPV) of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.
- (v) All the funds received from the User Agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (<https://parivesh.nic.in/>).
  - (vi) The dugout material/overburden shall be dumped outside the forest area. Storage of any material shall not be done in the forest area.
  - (vii) The user agency shall endeavor to minimize the felling of trees existing on the forest land proposed to be utilized to the extent possible. Wherever necessary, felling shall be carried out under the strict supervision of the DFO/FDO concerned.
  - (viii) The layout plan of the proposed road shall not be changed without the prior approval of the Central Government.

- (ix) The User Agency has to create a live fencing by planting tree species in 4 rows (at a spacing of 2m x 2m) all around the boundary of the Solid Waste Treatment & Disposal Facility ( within the UA's land).
- (x) Speed breakers shall be constructed along the road at an interval of 150 meter by the User Agency to prevent collision of trucks with wild animals.
- (xi) No additional or new path shall be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (xii) Fencing of Solid Waste Treatment and Disposal Facility shall be done with compound wall.
- (xiii) A manned barrier shall be established at the beginning of road and a gate at entry of waste treatment and disposal facility to prevent entry of private vehicles.
- (xiv) No labour camp shall be established inside the forest area.
- (xv) It shall be the responsibility of the User Agency to ensure that the labourers & staff engaged in execution of work do not cause any damage to the nearby forest flora and fauna.
- (xvi) The total forest area utilized for the project shall not exceed 0.6228 ha and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal. The User Agency shall furnish an undertaking to this effect.
- (xvii) The forest land proposed for diversion shall under no circumstances be transferred or sublet to any other agency, department or person without prior approval of the Central Government
- (xviii) The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.
- (xix) Any other conditions that the Central Government or Regional Officer (Central) of Integrated Regional Office, Hyderabad may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied by the User Agency.

- (xx) Violation of any of these conditions will amount to violation of Forest Conservation act, 1980 and action would be taken as per the prevailing act/Rules and MoEF&CC Guideline F.No.11-42/2017-FC dt. 29/01/2018
- (xxi) Compliance report shall be submitted through online (<http://parivesh.nc.in/>)

After receipt of the compliance report on above mentioned conditions, the proposal will be considered for final approval. This *in-principle* approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non-compliance of the above conditions, this *in-principle* approval shall automatically stand revoked after 5 years.

Yours faithfully,



(Kailash Bhimrao Bhawar, IFS)  
Assistant Inspector General of Forests (Central)

Copy to:-

1. The Principal Chief Conservator of Forests (HoFF), Forests Department / Nodal Officer (FCA), Govt. of Telangana Aranya Bhavan, Saifabad, Hyderabad, PIN- 500 004.
2. Commissioner, GHMC, Municipal complex, Hyderabad, 500004  
[rajshaeghmc@gmail.com](mailto:rajshaeghmc@gmail.com)
3. Guard file.



(Kailash Bhimrao Bhawar, IFS)  
Assistant Inspector General of Forests (Central)





From  
The Commissioner,  
Greater Hyderabad Municipal Corporation,  
1<sup>st</sup> Floor, CC Complex  
Tankbund road,  
Hyderabad

To  
The Project Head  
HIMSW Ltd,  
Survey No 173, Jawaharnagar  
Kapra Mandal,  
Medchal Malkajgiri (D)500087

Lr.No. 594/AC(H&S)/EE(SWM)/2015

Dated : 17.05.2022

Gentleman,

Sub : GHMC - SWM - Establishing Solid Waste processing facility at Pyaranagar and diversion of 0.6228 ha of forest land for laying approach road - Reg.

Ref : 1. Lr.No: B/1055/2014 dated 20.12.2017 from Tasildar, Gummadidala Mandal addressed to RDO Sangareddy  
2. Lr no. F.No. 4-TSB244/2022-HYD/475, Dt: 05-05-2022 of the Asst. Inspector General of Forests (Central), Integrated Regional Office, Hyderabad, MoEFCC.

\*\*\*\*

With reference to the letter 1<sup>st</sup> cited, it is to inform that 152 acres of land at Pyaranagar (V), Sangareddy (D) is under advance possession of GHMC for establishing alternate Solid Waste Processing facility to the existing MSW Treatment & Disposal facility at Jawaharnagar. Further, vide reference 2<sup>nd</sup> cited, the Ministry of Environment, Forest & Climate Change, GoI has accorded in-principle approval (**Stage-I**) under section '2' of Forest (Conservation) Act, 1980 for diversion of 0.6228 ha of forest land for laying approach road, at Nallavelly(V), Nallavelly RF, Sangareddy (D), to the above said land subject to compliance of certain conditions.

In view of the above, HiMSW is hereby permitted to commence the construction of the treatment and disposal facility including waste to energy plant, if required, in the above said Government land of 152 Acres, as per the applicable rules and the terms & conditions of Concession Agreement of the IMSWM Project. Further, HiMSW is requested to lay the approach road in the above said forest land of 0.6228 Ha duly following the conditions enclosed in the Annexure to this letter, as communicated by the Ministry of Environment, Forest & Climate Change, GoI.

Encl: Copy of references & Annexure (2) pages

Commissioner,  
GHMC

Copy to the Director General, EPTRI for information.

### ANNEXURE

(enclosed with Lr no: 594/AC(H&S)/EE(SWM)/2015

Dated : .05.2022)

- (i) Demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered at an interval of 20 meters.
- (ii) The dug out material/overburden shall be dumped outside the forest area. Storage of any material shall not be done in the forest area.
- (iii) The User Agency shall endeavor to minimize the felling of trees existing on the forest land proposed to be utilized to the extent possible. Wherever necessary, felling shall be carried out under the strict supervision of the DFO/FDO concerned.
- (iv) The User Agency has to create a live fencing by planting tree species in 4 rows (at a spacing of 2m x 2m) all around the boundary of the Solid Waste Treatment & Disposal Facility (within the UA's land).
- (v) Speed breakers shall be constructed along the road at an interval of 150 meter by the User Agency to prevent collision of trucks with wild animals.
- (vi) No additional or new path shall be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (vii) Fencing of Solid Waste Treatment and Disposal Facility shall be done with compound wall.
- (viii) The layout plan of the proposed road shall not be changed without the prior approval of the Central Government.
- (ix) A manned barrier shall be established at the beginning of road and a gate at entry of waste treatment and disposal facility to prevent entry of private vehicles.
- (x) No labour camp shall be established inside the forest area.
- (xi) Ensure that the labourers & staff engaged in execution of work do not cause any damage to the nearby forest flora and fauna.
- (xii) The total forest area utilized for the project shall not exceed 0.6228 ha and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal.

- (xiii) The forest land proposed for diversion shall under no circumstances be transferred or sublet to any other agency, department or person without prior approval of the Central Government.
- (xiv) Shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.
- (xv) Any other conditions that the Central Government or Regional Officer (Central) of Integrated Regional Office, Hyderabad may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied.

By   
Commissioner  
GHMC

GOVERNMENT OF TELANGANA  
FOREST DEPARTMENT

Rc.No.457/S6/2020  
Dated. :23.06.2022.

Office of the,  
District Forest Officer,  
Sangareddy.

**Sri V.Venkateswar Rao,Dy.C.F.,**  
District Forest Officer,  
Sangareddy.

\*\*\*

**DEMAND NOTICE**

Sub:- TSFD- FCA, 1980 – GHMC – SWM - Proposal for diversion of **0.6228 Ha** of Forest land for Laying approach road to the proposed Municipal Solid Waste (MSW) treatment and disposal facility of GHMC at Nallavally (V) Nallavally RF, Sangareddy District in favour of Superintendent Engineer (SWM), GHMC, Hyderabad – In-principle (Stage-I) approval – Accorded – **Demand Notice** raised - Requested – Regarding.

Ref: - 1.PCCF, (HoFF), TS, Hyd Rc. No.15221/2018/-FCA-2, Dated. 10.07.2020  
2. Commissioner,GHMC.Hyd.Lr.No.594/AC/(H&S)/EE/SWM/2015, Dt.17.06.2020.  
3.Gram Panchayath, Nallavally, Gummadidala Mandal, Dated. 22.01.2021  
4.PCCF., (HoFF), T.S., Hyd. Rc.No.15221/2018-FCA1, Dated. 06.07.2021  
5.This Office Rc.No.457/S6/2020, Dated. 03.08.2021  
6.DIGF(C), GoI MoEF &CC, IRO, Hyderabad F.No.4-TSB244/2022-HYD/475, Dated. 05.05.2022  
7.PCCF.,(HoFF), T.S., Hyd. Rc.No.15221/2018/FCA-1, Dated. 08.05.2022  
8.CCF, Medak Circle, Medak Rc.No.3668/2020/C3, Dated. 23.05.2022

\*\*\* \*\*

It is informed that the vide reference 6<sup>th</sup> cited the Government of Telangana have accorded **in-principle (Stage. I) approval** under Section 2 of Forest (Conversation) Act, 1980, for diversion of **0.6228 Ha** of Forest land for laying of approach road to the proposed Municipal Solid Waste (MSW) treatment and disposal facility of GHMC at Nallavally (V) Nallavally RF, Sangareddy District in favour of **Superintendent Engineer (SWM), GHMC, Hyderabad, Subject to compliance of conditions stipulated therein**, which is already communicated to the user agency.

In this regard, as per the instructions contained in the reference 7<sup>th</sup> cited, **Superintendent Engineer (SWM), GHMC, Hyderabad** is hereby requested to remit an amount of **Rs. 32,90,192/-** towards Net Present Value (NPV).

The **Superintendent Engineer (SWM), GHMC, Hyderabad**, shall the remit the CA amount through E-Payment portal of Ministry of Environment, Forest and Climate change only. The user agency shall generate challan and transfer funds through online only against the challan generated by producing the same at the designated branch where the user agency has account, in to the **Ad-hoc CAMPA account** of Telangana.

Further, it is to inform that the charges towards expenditure like boundary pillars Big & Small the **Superintendent Engineer (SWM), GHMC, Hyderabad**, shall remit the CA amount of **Rs. 47,35,479/-** to the District Forest Officer, Sangareddy **Current Account No.37249920410, SBI, Sangareddy Opp. Collectorate, Sangareddy (RTGS/IFSC.No. SBIN0021217)**.

...2...

:: 2 ::

The User Agency will be directed to deposit the compensatory levies towards CA, NPV etc., into the Telangana State Compensatory Afforestation Fund Management and Planning Authority (CAMPFA) through online mode only, through e-portal method at MoEF&CC, GOI, New Delhi portal i.e., <http://parivesh.nic.in> by generating the challan in consultation with Nodal Officer, Telangana State Forest Department. The user agency needs to upload the demand notice against the project for approval by Nodal Officer (FCA), Telangana and generate challan after approval. The payment to be made against the Challan number and the Challan is valid for one week. A step-by-step process is available at <http://parivesh.nic.in>.

Further, the user agency has to comply with the following in accordance with the instructions issued by the Govt. MOEF&CC, New Delhi Vide F.No.7-23-2012-FC, Dated. 24.07.2013 communicated vide PCCF's Ref.No.45921/2001/F4, Dated. 23.08.2013.

1. Publish the entire forest clearances granted to the project proponent for the use of forest land for the non-forest purposes in verbatim along with the condition(s) and safe-guards imposed by the Central Government in two widely circulated daily news paper i.e., one in vernacular language and the other in English.
2. The copies of the forest clearance should also be submitted to the heads of local bodies, Panchayats and municipal bodies by the project proponents in addition to the relevant offices of the Government who in-turn has to display the same for (30) days from the date of receipt of this reference.

The User Agency is requested to comply with the other conditions as directed in Stage-I approval and submit the compliance report along with all the required relevant information/documents etc. for obtaining Stage-II (final) approval.

The transfer of forest land to User Agency shall not be affected prior to the issue of final (Stage II) approval.

The detailed procedure for generation of Challan and deposition of funds is available at [www.forestclearance.nic.in](http://www.forestclearance.nic.in) portal.

District Forest Officer,  
Sangareddy.

To  
The Superintendent Engineer,  
(SWM), GHMC, Hyderabad,  
Copy submitted to the Chief Conservator of Forests, Medak Circle, Medak for favour of kind information.

District Forest Officer,  
Sangareddy.



<p>To, The Superintending Engineer, Solid Waste Management, Greater Hyderabad Municipal Corporation, 4<sup>th</sup> Floor, GHMC- HO, CC Complex, Lower Tankbund Road, Hyderabad.</p>	<p>To, The District Forest Officer, Sangareddy (D), Rajampet Rd, Sangareddy District, Telangana 502001</p>
--	--

Lr.No. SWM/0013/2020/AE-3(SWM)HO

Dated : 08.07.2022

Sir,


Sub : GHMC- SWM Alternate site for establishing Solid Waste processing facility at Pyaranagar - Diversion of 0.6228 ha of forest land at Pyaranagar (V) for laying approach road - In principle approval accorded by GoI - Demand Notice issued by the DFO, Sangareddy - Submission of cheque for an amount of Rs. 47,35,479 - Reg.

Ref : 1. Rc. No.457/S6/2020 dated 23.06.2022 of DFO, Rangareddy  
2. Cheque no 158193-500002337-001732-29 dt:8.7.2022 of SBI bank

In compliance to the reference 1<sup>st</sup> cited wherein, GHMC was requested to remit an amount of Rs.47,35,479/- to the District Forest Officer, Sangareddy District towards expenditure like boundary pillars big and small, the cheque vide no. 158193-500002337-001732-29 dated: 08.07.2022 for an amount of Rs.47,35,479/- as payment from GHMC is **enclosed herewith in original** for remitting into your account.

Yours faithfully,

Encl: as above

  
Superintending Engineer (SWM)  
GHMC 3/3

Copy submitted to: The Addl. Commissioner (SWM), GHMC for favour of information

Copy to : M/s.HIMSW for information

भारतीय स्टेट बैंक  
State Bank Of India

(20432)-M C TANK BUND - HYDERABAD  
GHMC, HEAD OFFICE COMPLEX  
NEAR OLD LIBERTY TALKIES  
HYDERABAD 500063  
Tel : 40 23225011 Fax : 23225011 IFS Code : SBIN0020432 SWIFT :

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08 JUL 2022

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को या उनके आदेश पर OR ORDER

रुपये RUPEES Rupees Forty Seven Lakh Thirty Five Thousand Four Hundred  
Seventy Nine Only

अदा करें ₹ 47,35,479.00

खा. नं.  
A/c No. 39321647058

VALID UP TO ₹ 50 LACS AT NON-HOME BRANCH FOR NON-CASH TRANSACTION ONLY

85074612393

CURRENT A/C

PREFIX :  
2109100028

MULTI-CITY CHEQUE Payable at Par at All Branches of SBI

*[Signature]*  
COMMISSIONER GHMC - GENERAL FUND  
Examiner of Accounts  
Head Office : GHMC  
*[Signature]*  
Commissioner (P&A)  
GH.M.C.  
Please sign above

⑈ 158193⑈ 500002337⑈ 001732⑈ 29

### Annexure R14

Photographs showing progress of work at 14.5 MW Waste to Energy Plant of GHMC at Dundigal (V)







**BEFORE THE HON'BLE  
NATIONAL GREEN  
TRIBUNAL  
SOUTHERN ZONE,  
CHENNAI**

In the matter of O.A no: 199 of  
2021

Between :

Sri. Shankar Narayanan Bala  
Krishnan and Others

....Applicants

AND

State of Telangana and Others

....Respondent

**Report filed by Respondent 6**

M/s. D. Sreenivasan, Counsel  
for Respondent no.6