

EXECUTIVE SUMMARY
OF
ENVIRONMENTAL IMPACT ASSESSMENT
REPORT

[Project under Schedule (7 d a) - Category B1 - CBMWTF as per EIA
Notification 2006 & its amendments]

**For The Proposed Common Bio-Medical Waste
Treatment Facility**

Promoted By

M/s. S. GROWTH ALLIANCES LLP

At
Melpakkam Village,
Uthiramerur Taluk,
Kancheepuram District,
Tamil Nadu.

Report Prepared by



SAMRAKSHAN



1. INTRODUCTION

M/s. S. Growth Alliances LLP proposes to establish Common Bio-Medical Waste Treatment Facility at 58/1, 58/2, 59/1A(pt) & 59/1B(pt), Melpakkam village, Uthiramerur Taluk, Kanchipuram District, Tamil Nadu. The proposed facility will be catering to the management of bio-medical waste i.e., Collection, Transportation, Treatment, and Safe Disposal of Bio-Medical from all types of healthcare establishments located in Kanchipuram District. This project will be implemented in the barren & unused land classified as a “Non-Planning Area” by the Directorate of Town and Country Planning Tamil Nadu. The treatment facility will be established in a total area of 03 acres (12340.60 sq mt).

The objective of an environmental impact assessment report is for identifying, predicting, and evaluating the economic, environmental, and social impacts of development activities. Furthermore, environmental impact assessment is a technique that presents in a systematic manner a technical assessment of impacts on the environment that the project is likely to cause and explains the significance of predicted impacts, and as a result, it indicates the scope for modification or mitigation.

The proposed establishment of a Common Bio-Medical Waste Treatment Facility is covered under activity 7 [d(a)] and Category B1 of “Bio-medical Waste Treatment Facilities” as per the EIA Notification dated 14th September 2006 and amendment no. S.O. 1142 (E) dated 17th April 2015. The proposed activity requires prior Environmental Clearance from SEIAA, Tamil Nadu. Public Hearing is applicable since the proposed facility is in a non-industrial area.

The proposed Common Bio-medical Waste Treatment and Disposal Facility will consist of:

- a) Incinerator - 02 No.s (500 kg/hr Rotary Kiln and 300 Kg/hr Static Bed).
- b) Autoclave - 02 No.s each capacity 1kl/Cycle.
- c) Shredder - 1 x 250 kg/hr.
- d) ETP of 10 KLD capacity.



2. PROJECT DESCRIPTION

S. No.	Parameters	Description																																
1	Name of the project and location	M/s. S. Growth Alliances LLP located at 58/1, 58/2, 59/1A (pt) & 59/1B (pt), Melpakkam village, Uthiramerur Taluk, Kanchipuram District, Tamil Nadu																																
2	Project Activity Schedule, Category as per EIA Notification 2006 & amendment	The project falls under Category B, schedule 7 (da) as per the MoEF & CC Notification No. S.O 1142 (E) dated 17th April, 2015. The Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF) attracts obtaining of the Environmental Clearance.																																
3	Plant Capacity	Capacity of CBMWF <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sl No</th> <th style="text-align: center;">Equipment</th> <th style="text-align: center;">Nos.</th> <th style="text-align: center;">Capacity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">01</td> <td>Incinerator</td> <td></td> <td></td> </tr> <tr> <td></td> <td>I. Rotary Kiln Type</td> <td style="text-align: center;">01</td> <td style="text-align: center;">500 Kg/hr</td> </tr> <tr> <td></td> <td>II. Static Bed Type</td> <td style="text-align: center;">01</td> <td style="text-align: center;">300 Kg/hr</td> </tr> <tr> <td style="text-align: center;">02</td> <td>Autoclave</td> <td style="text-align: center;">02</td> <td style="text-align: center;">1 KL/cycle each</td> </tr> <tr> <td style="text-align: center;">03</td> <td>Effluent Treatment Plant</td> <td style="text-align: center;">01</td> <td style="text-align: center;">10 KLD</td> </tr> <tr> <td style="text-align: center;">04</td> <td>Shredder</td> <td style="text-align: center;">01</td> <td style="text-align: center;">250 Kg/hr</td> </tr> <tr> <td style="text-align: center;">05</td> <td>Diesel Generator</td> <td style="text-align: center;">01</td> <td style="text-align: center;">125 KVA</td> </tr> </tbody> </table>	Sl No	Equipment	Nos.	Capacity	01	Incinerator				I. Rotary Kiln Type	01	500 Kg/hr		II. Static Bed Type	01	300 Kg/hr	02	Autoclave	02	1 KL/cycle each	03	Effluent Treatment Plant	01	10 KLD	04	Shredder	01	250 Kg/hr	05	Diesel Generator	01	125 KVA
Sl No	Equipment	Nos.	Capacity																															
01	Incinerator																																	
	I. Rotary Kiln Type	01	500 Kg/hr																															
	II. Static Bed Type	01	300 Kg/hr																															
02	Autoclave	02	1 KL/cycle each																															
03	Effluent Treatment Plant	01	10 KLD																															
04	Shredder	01	250 Kg/hr																															
05	Diesel Generator	01	125 KVA																															
4	Number of HCE's and beds to be covered	1800 numbers. Number of beds - 10,000 numbers.																																
5	Total Plot Area	3.0 Acres (12340.60 sq.m)																																
6	Area of operation	Kanchipuram, Chengalpattu, Chennai, and Tindivanam																																
7	Source of Water	Local Panchayat Water Supply																																
8	Water Requirement	Total Water requirement - 6 KLD Fresh Water Requirement - 4 KLD Recycled Water - 2 KLD																																
9	Wastewater generation & mode of treatment	5.0 KLD Wastewater 5.0 KLD will be treated in 10 KLD ETP.																																
10	Air Pollution Sources & control measures	DG set of 125 kVA with 4m stack height and acoustic enclosure will be provided.																																



11	Hazardous & Solid waste generation	Organic solid waste - 3.6 kg/ day Inorganic solid waste - 2.4 kg/ day Ash from the incinerator: 150 kg/d Disposed to TSDF.															
12	Man power	25-30 numbers															
13	Electricity/Power requirement	Power of 150 kW is supplied from TNEB.															
14	Land form, Land use and Land ownership	Non - Planning Area															
15	Estimated Cost	<table border="1"><thead><tr><th>Sl. No.</th><th>Details</th><th>Cost in Lakhs Rs.</th></tr></thead><tbody><tr><td>1</td><td>Land Cost</td><td>10.98</td></tr><tr><td>2</td><td>Construction Cost</td><td>100</td></tr><tr><td>3</td><td>Plant and Machinery</td><td>200</td></tr><tr><td colspan="2">Total Investment</td><td>310.98 Lakhs</td></tr></tbody></table>	Sl. No.	Details	Cost in Lakhs Rs.	1	Land Cost	10.98	2	Construction Cost	100	3	Plant and Machinery	200	Total Investment		310.98 Lakhs
Sl. No.	Details	Cost in Lakhs Rs.															
1	Land Cost	10.98															
2	Construction Cost	100															
3	Plant and Machinery	200															
Total Investment		310.98 Lakhs															

2.1 Project Location

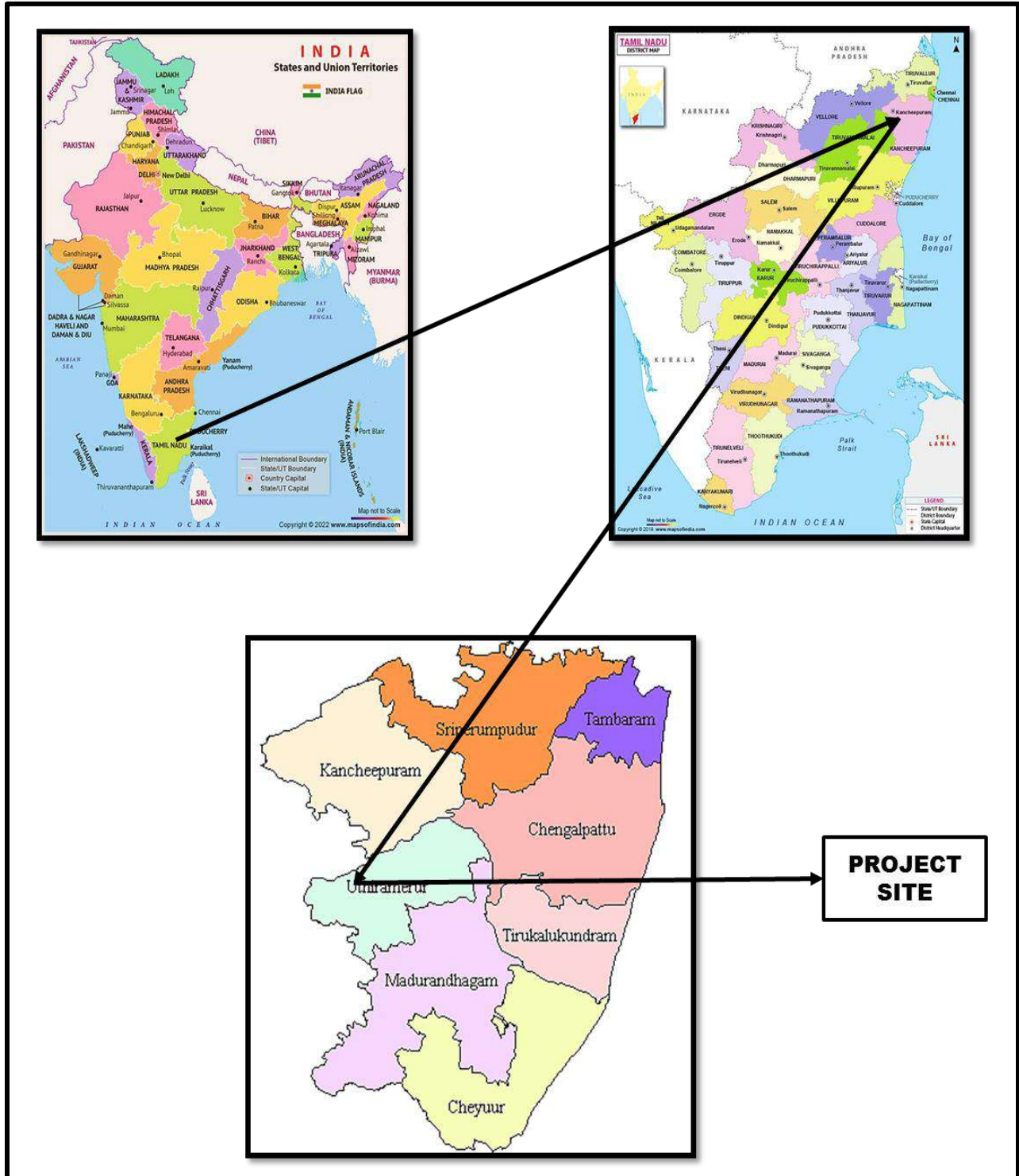
The plant is located in Non-Planning Area of S.F. No. 58/1, 58/2, 59/1A(pt) & 59/1B(pt), Melpakkam village, Uthiramerur Taluk, Kanchipuram District, Tamil Nadu

Connectivity

S. No.	Description	Details
1.	Nearest Highway	State Highway such as SH-116 at 5km towards west, SH-118 at 2.25 Km towards south & SH-118A at 6.5 Km towards east
2.	Nearest Railway Station	Kanchipuram which is 22.5 km away from the site.
3.	Nearest Airport	Chennai Airport at 62.5 km from project site
4.	Nearest Major City	Kancheepuram - 19 km
5.	Nearest Village	Melpakkam Village - 1.25 km



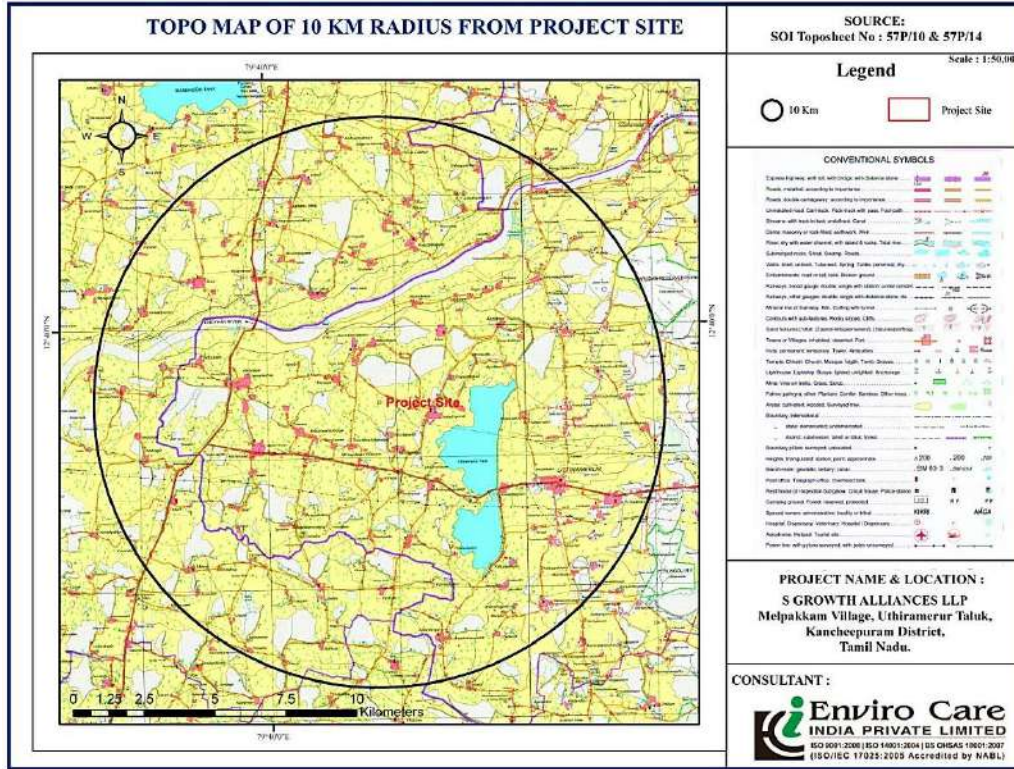
Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



Location Map of the Project Site



Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



Topography Map of the Project Site



Satellite Imagery of the Project Site



Photos of the Proposed Project Site

Environmental Setting

Sl. No.	Location Features / Criteria	Remarks															
01	Location	58/1, 58/2, 59/1A(pt) & 59/1B(pt) Melpakkam village, Uttiramerur Taluk, Kanchipuram District.															
02	Total Area	<table border="1"> <thead> <tr> <th>Description</th> <th>Area in acres</th> <th>Area in sq m</th> </tr> </thead> <tbody> <tr> <td>Total Plot Area</td> <td>3.0</td> <td>12340.60</td> </tr> <tr> <td>Built up area</td> <td>0.24</td> <td>1004.30</td> </tr> <tr> <td>Green Belt</td> <td>1.28</td> <td>5194.36</td> </tr> <tr> <td>Vacant Area</td> <td>1.51</td> <td>6141.94</td> </tr> </tbody> </table>	Description	Area in acres	Area in sq m	Total Plot Area	3.0	12340.60	Built up area	0.24	1004.30	Green Belt	1.28	5194.36	Vacant Area	1.51	6141.94
Description	Area in acres	Area in sq m															
Total Plot Area	3.0	12340.60															
Built up area	0.24	1004.30															
Green Belt	1.28	5194.36															
Vacant Area	1.51	6141.94															
03	Nearest Water Bodies	Cheyar River at 3Km flows from the South towards-west-north Uttiramerur tank at 4Km towards SE.															
04	Nearest Highway	<ul style="list-style-type: none"> State Highway such as SH-116 at 5km towards west, SH-118 at 2.25 Km towards south & SH-118A at 6.5 Km towards east 															
05	Nearest Railway Station	Kanchipuram which is 22.5 km away from the site.															
06	Nearest Air Port	The nearest airport is located at Chennai around 62.5 km															



		from the project site
07	Nearest Habitation	<ul style="list-style-type: none">Melpakkam - 1.25 km towards south directionRavathanullur village 2 km towards the Southeast directionHanumanthandalam- 1.75 km toward North West direction
08	Nearest Public parks	There are no public parks in the vicinity of project site.
09	Nearest Critical Habitat Area	No such area in the vicinity of project site.
10	Wetland / Economic Sensitive Area	No wetlands or economic sensitive area for about 10 km from project site.
11	Source of water supply	Local Panchayats Water Supply
12	Activity around the industry	Nobel tech steel industry - adjacent to the proposed site towards East. Industry is mainly engaged in production of steel and Steel Billets, Sponge Iron, Structural Beams, Channels, Angles and TMT bars in accordance to BIS specification

2.2 Project Cost Details

Sl. No.	Details	Cost in Lakhs Rs.
1	Land Cost	10.98
2	Construction Cost	100
3	Plant and Machinery	200
Total Investment		310.98 Lakhs

2.3 Land Area Details

Description	Area in acres	Area in sq m
Total Plot Area	3.0	12340.60
Built up area	0.24	1004.30
Green Belt	1.28	5194.36
Vacant Area	1.51	6141.94



2.4 Process Components

S. No.	Equipment	Nos.	Capacity
01	Incinerator		
	I. Rotary Kiln Type	01	500 Kg/hr
	II. Static Bed Type	01	300 Kg/hr
02	Autoclave	02	1 KL/cycle each
03	Effluent Treatment Plant	01	10 KLD
04	Shredder	01	250 Kg/hr

i) Incineration

It is a controlled combustion process where waste is completely oxidized and harmful microorganisms present in it are destroyed/denatured under high temperature. The fuel used for the incinerator is HSD. The incinerator is modular type with two chambers; working temperature of the primary chamber is 800°C and that of the secondary chamber is 1050°C, the secondary chamber gas residence time being a minimum of two seconds.

Propose to install Rotary Kiln Incinerator capacity 1 X 500 kg/hr capacity and Static Bed incinerator of 1 X 300 kg/hr capacity with all air pollution control measures will be installed as per the Bio Medical Waste Management Rules 2016.

The expected incinerator operating hours in a day is approximately 08 hours in the initial stage according to the Incinerable waste received. The incinerated ash will be stored in ash storage room and later handed over to TSDF for disposal.

ii) Autoclaving:

Autoclaving is a low-heat thermal process where steam is brought into direct contact with waste in a controlled manner and for sufficient duration to disinfect the wastes. Autoclave is exclusively designed for the treatment of bio-medical waste. It is pre-vacuum-based system. It has tamper-proof control panel for monitoring the operation. Autoclave of 1 Kl/cycle is proposed.



iii) Shredder:

Shredding is a process by which waste are disintegrated or cut into smaller pieces to make the wastes unrecognizable. It helps in prevention of reuse of bio-medical waste and also acts as identifier that the wastes have been disinfected and are safe to dispose of. Shredder of 250 kg/hr is proposed.

iv) Sharp Pit:

A sharp pit or a facility for encapsulation of sharp objects shall be provided for treated sharps. An option may also be worked out for recovery of metal from sharps in a factory.

v) Effluent Treatment Plant

The effluent generated from scrubbing, washing of vehicles, equipment's, floor cleaning etc will be sent to Effluent Treatment plant comprising of screening, neutralisation, collection tank, aeration tank, tube settler, intermediate tank, sand and carbon filter for treating the wastewater. ETP of 10 KLD is proposed.

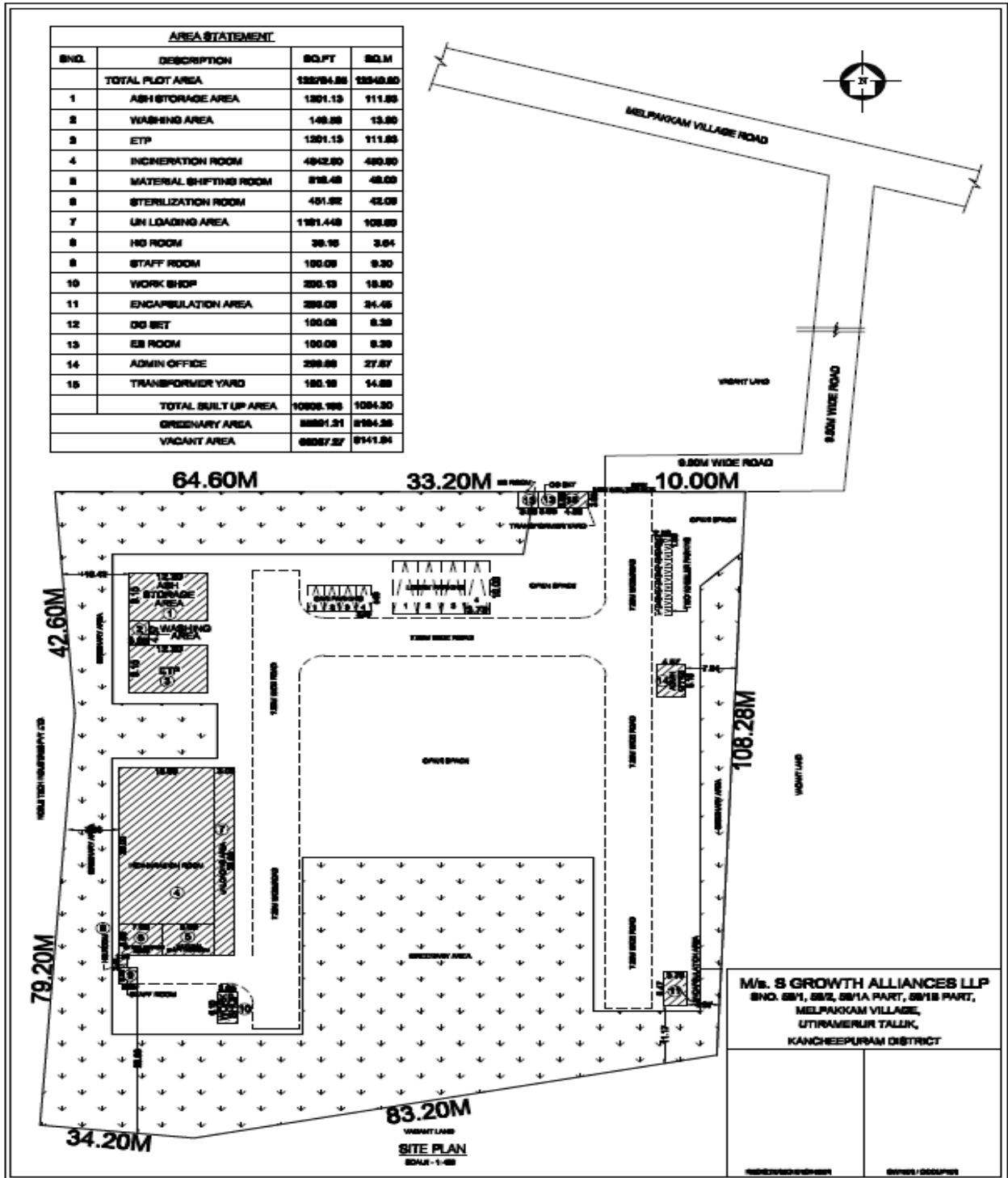
The treated wastewater will be reused for scrubber. Hence, following Zero Liquid Discharge (ZLD) at the site. ETP sludge generated is sent to TSDF for disposal.

d) Record Maintaining

Record of receipt of different category of bio medical waste and disposal details will be maintained on daily basis as per the guidelines. Details of vehicles allotted for collection of Bio Medical Waste from individual HCE's receiving date and time. published in the website of the facility and statutory returns as required will be submitted to the concerned authorities.



Site Layout of the Proposed Project Site





2.5 Raw Material Requirement

The proposed project is a Common Bio-medical Waste Treatment Facility (CBMWTF) which caters handling and treatment of bio-medical waste. There is no production or manufacture of any products. Thus, there will be requirement of color-coded trolleys & bags, PPE's for workers, Diesel for operation of DG sets and incinerator, Necessary chemicals for Treatment etc., as raw material. Material Required for Treatment Facility is given in following table.

Material Requirement

S. No.	Particulars	Source	Quantity
1	Color Coded Trolley	Locally	Based on requirement
2	Non-chlorinated color-coded bags	Locally	Based on requirement
3	Diesel	Petrol bunk dealers	Based on requirement
4	Chemicals - Sodium hypochlorite, Caustic soda, Lime, Alum & Disinfectant	Locally	Based on requirement
5	Personal Protection Equipment (PPE's)	Locally from manufacturers	Based on requirement

2.6 Power Requirement

Total power requirement to the treatment facility will be 150 kW, sourced from TNEB. DG set of 125 KVA will be installed at the site as power backup with adequate stack height and acoustic enclosures.

2.7 Manpower Requirement

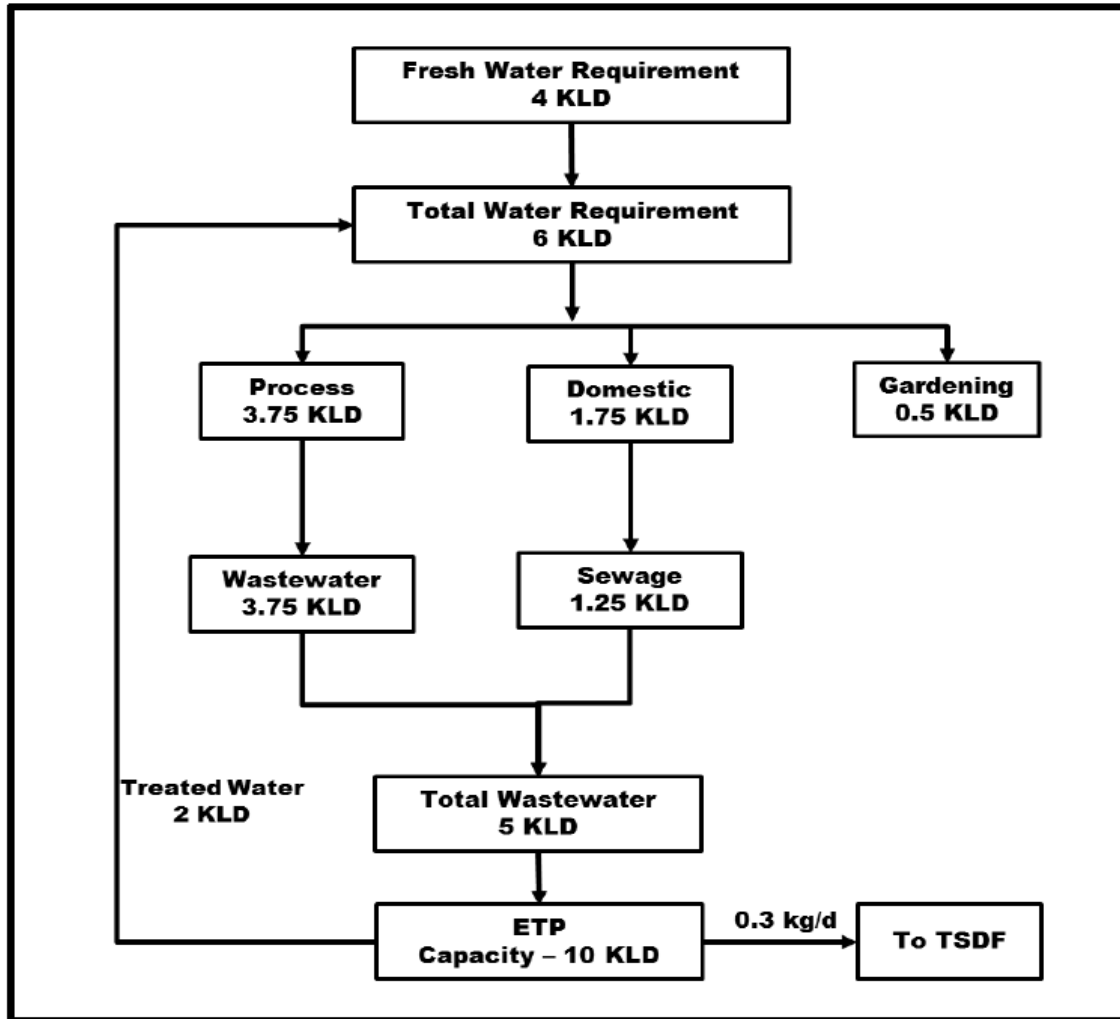
Total manpower requirement for the Common Waste Treatment Facility is about 25 - 30 nos.



2.8 Water Consumption

Total water requirement for proposed project is 6 KLD. Source of fresh water will be sourced from Local Panchayat water supply.

Sl. No.	Purpose	Water requirement KLD
1.	Domestic	1.75
2.	Industrial Purpose like autoclaving, washing equipment's, floors etc.,	3.75
3.	Gardening	0.5
Total		6.0



Water Balance Chart



2.9 Wastewater Generation

S. No.	Purpose	Quantity (KLD)	Mode of Treatment
1.	Domestic	1.75	The wastewater from process will be treated in ETP of 10 KLD and reused for scrubber. Hence, following Zero Liquid Discharge system. The sewage water will be treated in septic tank followed by soak pit.
2.	Industrial Purpose like autoclaving, washing equipment's, floors etc.,	3.75	
3.	Gardening	-	
Total		5.0	

2.10 Solid & Hazardous Waste Management

The incinerated ash and the ETP sludge are the Hazardous waste generated. The generation of incineration ash will be approximately 25-30 kg/d and the same will be handed over to TSDF. ETP sludge of 20 kg/month is also handed over to TSDF.

- Plastic wastes collected in red colour bags will be disinfected with Hypochlorite solution, disintegrated/shredded and handed over to authorized Pollution Control Board recyclers.
- Sharp Bio Medical Waste collected in white colour bags are disinfected, shredded and encapsulated.
- Glass waste collected in blue colour will be disinfected and handed over to authorized pollution Control Board recyclers.

2.11 Air Pollution Control Measures

Stack attached to	Capacity	Fuel HSD Quantity l/h	Stack Height m AGL	Air Pollution control measures	Emissions
Incinerators	500 kg/hr (Rotary Kiln)	80	30	Venturi Scrubber	Particulate Matter
	300 kg/hr (Static kiln)	45	30	Venturi Scrubber	
DG sets	125 KVA	27	4	Acoustic Enclosure	SO ₂ , NO _x



3. BASELINE STUDY

The baseline data is generated through field study within the impact zone (Core Zone and Buffer Zone) for various components of the environment viz. Air, Noise, Water, Land/Soil, Ecology and Socioeconomic. With the project as the centre, a radial distance of 10 km is considered as a 'study area' for baseline data collection. Baseline data was collected for various environmental attributes so as to compute the impacts that arise due to developmental activity.

The baseline environmental quality status is assessed through field studies within the study area for various components of environment, viz, air, noise, water, land, biological and socio-economic. Baseline data collection for each of the environmental components is based on the location of proposed project and anticipated distance of the significant impact. The study area is defined for each of the environmental components independently taking into consideration the vulnerability of the environmental component with respect to the activity of the proposed project. Majority of data on water quality, vegetation, air and noise quality was collected during field studies in March to May 2023. The copy of test reports for the project site from NABL accredited lab is given as Annexure-II.

4. SITE & TECHNOLOGY

Location criteria for CBMWTF reference to the revised guidelines 2016:

Sl. No	Description	Remarks
1	CBMWTF to be located faraway from notified residential and sensitive areas and should have a buffer distance of preferably 500m.	Nearest village is Melpakkam - 1.25 km towards the south direction
2	Distance between two bio medical waste treatment facilities should be 75 km	<ul style="list-style-type: none">➤ M/s. G. J. Multiclave (India) Pvt Ltd., Thenmelpakkam, Chengalpattu Taluk, Kancheepuram District. Is at 37.7 km.➤ M/s. Tamilnadu Waste Management Ltd., Kinnar village, Maduranthakam Taluk, Kancheepuram District is at 29.7 km towards South East➤ Distance between M/s. G. J. Multiclave (India) Pvt Ltd and M/s. Tamilnadu



Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.

		Waste Management Ltd is 25 km.
3	Adoption of best available technologies (BAT) by the proponent of CBMWTF	Proposed facility will operate incinerator of both rotary kiln and static bed type
4	Standards for operation of the CBMWTF by the SPCB/PCC	Facility will be operating on standards prescribed by CPCB/ SPCB and as per the BMW Rules
5	Adoption of zero liquid discharge by the CBMWTF	Facility will operate on ZLD principle
6	In case of any complaints from the public, then CBMWTF should prove that the facility is not causing any adverse impact on environment and habitation in the vicinity	The facility will operate without causing any adverse impact on the environment and habitation in the vicinity.

M/s. S. Growth Alliances LLP has chosen the best available technology for incineration and other facilities viz. autoclave, shredder, transport vehicle for BMW etc. will meet the specification as prescribed in the Guidelines issued by the CPCB. Incinerator technology is the proven technology for the small capacities of incineration. The technology is suggested in the guidelines issued by the Central Pollution Control Board for incinerating the Bio Medical Waste.

Rotary Kiln and static type incinerators one of the proven technologies for destructing yellow category Bio Medical Waste as per the Rules. The incinerable bio-medical waste is proposed for incineration using controlled flame combustion to thermally degrade waste for Thermal oxidation and converting the waste into final ash. The device will be constructed of heavy, well-insulated materials, so that it does not give off extreme amounts of external heat.



5. IDENTIFICATION OF IMPACTS & ITS MITIGATION MEASURES

5.1 Ambient Air

During the installation phase, impacts on ambient air would be mainly due to dust emissions and movement of vehicles. However, these impacts would be short term in nature and limited only to the construction period. Dust suppression systems (water spray) will be used. Construction materials shall be fully covered during transportation to the project site by road.

During the operational phase, Air Pollution Control devices will be installed for final flue gasses trapping. To control emissions from incinerators shall be provided. Chimney (30 m above ground level) will be provided from the incineration process. Stack monitoring shall be done on a regular basis for NOX, SO₂ and PM parameters. For mitigation of impacts of air pollution, stack height of 4 m above roof level shall be provided for proposed D.G. sets of capacity 1 x 125 kVA.

5.2 Water Environment

Total water requirement for proposed project is 6 KLD. Source of fresh water will be sourced from Local Panchayat supply. Total waste water generated in the project will be 5 KLD which will be treated in ETP with a capacity of 10 KLD. All the treated wastewater will be recycled; no untreated/treated water will be discharged. It will be a zero liquid discharge project. Collection of effluent will be done properly and safely. It will be a zero liquid discharge unit. Waste water generated will be treated in ETP. All the treated water will be used in the process; no untreated/treated water will be discharged outside the premises.

5.3 Land Environment

Presently, the land is vacant. The site falls under Non Planning Area. The land area has been given purchased by M/s. S. Growth Alliances LLP. The excavated soil from excavation will be used for backfilling and excess will be sent to the landfill site. During



the operational phase, procedures for the maintenance of equipment would ensure that this risk is minimized and clean-up response is rapid if any spill occurs. During spillage if any occurs, the spill will be collected and disposed off properly. In case of spills of chemicals, dry adsorbents/cotton should be used for cleaning instead of water. Spillage will be managed by detection of leaks in the first place from structures or vessels.

5.4 Noise Levels

Some amount of noise will be generated from vehicular movement in the installation/construction. Green belt developed at the periphery of the project site will act as a barrier to noise. Machines having high standards shall be deployed so that minimum levels of noise & vibrations are produced during the construction work with excavators having vibration isolators. Silencers provided in the machines to modulate the noise generated by machines will be regularly checked for its effectiveness. For noise pollution control, the D.G. sets will be kept in acoustically treated room though the DG sets are used as standby only. Noise generating units like machinery area, canteen etc. are well insulated with enclosed doors. Earmuffs will be used while in high noise areas. Stationary machineries and equipment will be properly enclosed by enclosures and will be provided with dampeners for minimizing noise generated due to vibration of machineries.

6. ENVIRONMENTAL MONITORING PLAN

Environmental monitoring will be carried out during construction and operation phase with respect to Air, Noise, Solid waste, Soil quality, Rainwater Harvesting, Health, etc., The monitoring on above parameters will be carried out half yearly basis /yearly basis as per CPCB /TNPCB/MoEF&CC guidelines. Online monitoring will be carried out for emissions with computer recording facility.



The greenbelt will be developed in and around the factory. 42% of the area will be under greenbelt with high-rise trees in consultation with forest/agricultural department.

7. PROJECT BENEFITS

The Health Care facilities will be benefitted as their requirement for disposal of BMW will become easier and the cost of disposal will also be reduced as there will be competition between other players in the area. The proposed project can cover approximately 1800 numbers of HCE's and treat the bio-medical waste generated for 10000 beds approx., thereby easing the pressure on the Health Care Facilities.

The facility also plans to collect sanitary napkins, household bio-medical waste from local body for disposal in a secured manner. It reduces the risk of spread of disease carrying vector and environmental liability due to captive storage of bio-medical waste in the HCE's for a longer duration and helps HCE's in timely disposal of bio-medical waste and eases the pressure.

Disposal of BMW will be scientific and as per the guidelines of CPCB vis-à-vis the BMW regulation 2016.

8. ENVIRONMENTAL MANAGEMENT PLAN & BUDGET

All environmental mitigation will be undertaken to keep the process free from all the type of pollution by regular monitoring by regular monitoring management .The qualified staff and operators are employed, regular maintenance & cleaning will be carried out, daily, weekly, monthly plans are arranged to keep environment free from pollution .Also separate CSR found will be allocated as per MoEF&CC guidelines.



9. CONCLUSION

The CBMWTF is proposed to meet the growing quantities of bio medical waste especially during the Pandemic period and to scientifically treat the same. For the treatment of biomedical waste, an incinerator, autoclave and shredder of required capacity has been planned. The proposed CBMWTF is planned as per Revised Guidelines for Common Bio-Medical Waste Treatment Facility and Bio-Medical Wastes Management Rules 2016.

The baseline environmental condition of the project area in terms of Air Quality, Noise Levels Water Quality, Soil and biological Environmental attributes are well within the prescribed limits.

The wastewater from the CBMWTF will be treated in the ETP and recycled. The black and grey water will be treated in suitably designed treatment plants. The impact on water environment is practically minimal.

The plant machinery design and acoustic measures ensure that no significant impact on the noise environment.

The proponent will carry out CER activities as per the guidelines of the MoEF&CC.

Safety precautions for employees and fire safety will be carried out as per legal requirements.

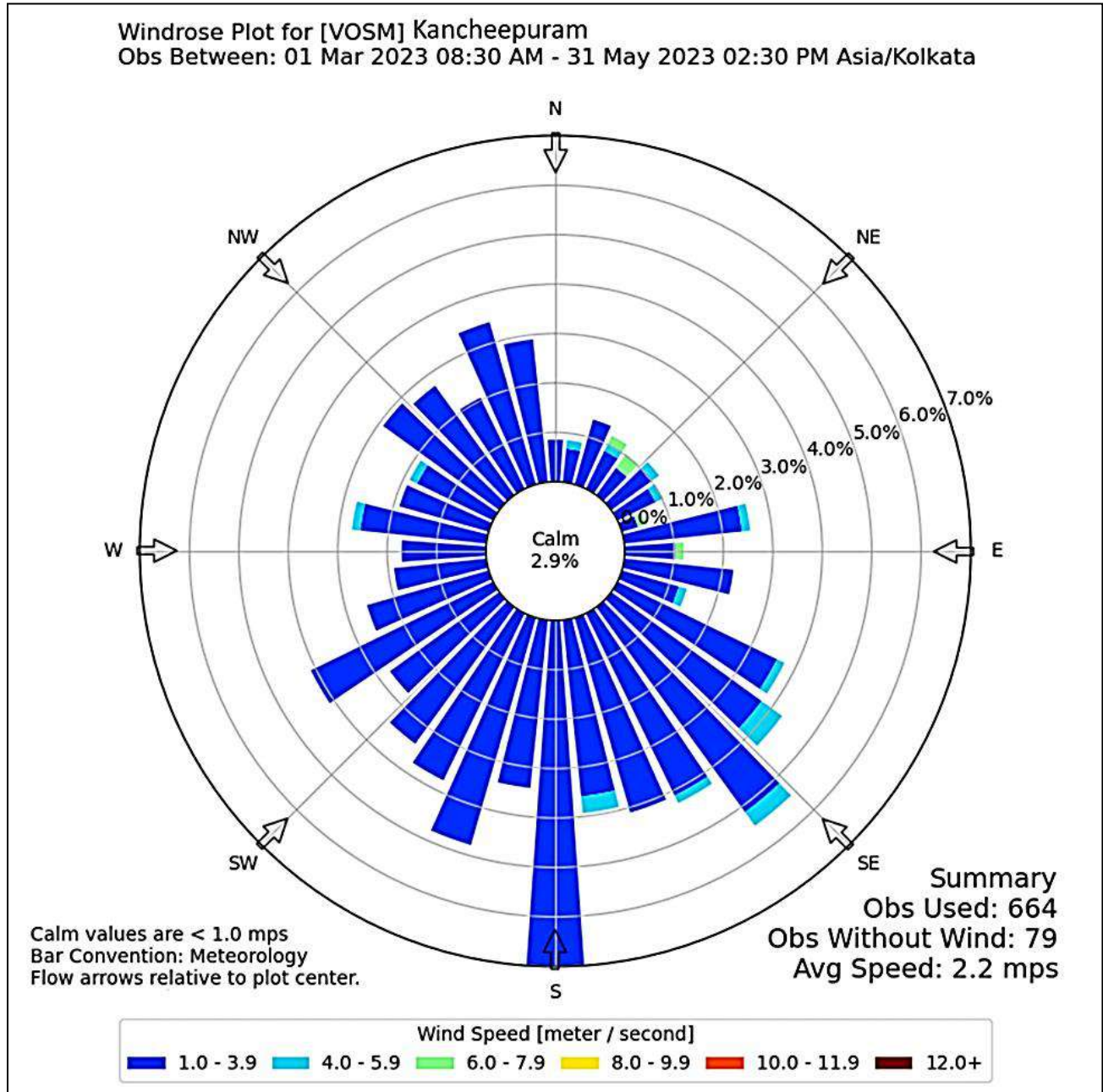
Greenery development and rainwater harvesting have been planned in order to enhance environmental benefits.

The effective implementation and supervision of EMP to mitigate the environmental impacts will be achieved through a suitable training to employees and by use of professional help of environmental experts.

The proposed CBMWTF unit will improve environmental hygienic condition and uplift the socioeconomic conditions of people in the surrounding villages.



ANNEXURE I WIND ROSE DIAGRAM



Wind Rose Diagram (March - May 2023)



ANNEXURE II
LAB ANALYSIS REPORT



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/005	Report Date :	04.03.2023		
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.				
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/005		
Sample Drawn By :	ECI	Sample Received On :	03.03.2023		
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023		
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	04.03.2023		
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14		
Sample Mark:	Project Site				
S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	67.00	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	38.00	IS 5182:Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	13.00	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	22.00	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.89	IS 5182:Part 10	2.0
<--- End of Report --->					
Verified By :					
Remarks:	In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.				
	For ENVIRO CARE INDIA PRIVATE LIMITED (Laboratory Division) Authorized Signatory				



#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount.
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.






TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/015	Report Date :	04.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10, Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/015
Sample Drawn By :	ECI	Sample Received On :	03.03.2023
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	04.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Elanagar		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	46.21	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	26.60	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	8.56	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	15.20	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.86	IS 5182:Part 10	2.0


<--- End of Report --->

Verified By : 

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.

For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)




Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note: 1. The results relate only to this item tested.
2. Any Correction not attested shall invalidate this report.
3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
5. Total liability of our laboratory is limited to the invoice amount
6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/027	Report Date :	13.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10, Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/027
Sample Drawn By :	ECI	Sample Received On :	10.03.2023
Sample Collected Date :	09.03.2023	Test Commenced On :	10.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	13.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Ravathanallur		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	51.78	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	29.48	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	9.80	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	15.00	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.92	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By : *S. di*

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to parameters tested.



For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)

[Signature]
Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/034	Report Date :	04.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/034
Sample Drawn By :	ECI	Sample Received On :	03.03.2023
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	04.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Azhisoor		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	47.35	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	26.51	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	8.26	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	16.98	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.85	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By :

Sdt

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.

For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)



[Signature]

Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/044	Report Date :	04.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/044
Sample Drawn By :	ECI	Sample Received On :	03.03.2023
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	04.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Slambakkam		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	50.31	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	26.32	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	7.89	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	15.00	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.83	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By : *S. S. S.*

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.

For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)

[Signature]
Authorized Signatory



#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount.
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/062	Report Date :	29.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/062
Sample Drawn By :	ECI	Sample Received On :	27.03.2023
Sample Collected Date :	24.03.2023	Test Commenced On :	27.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	29.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Manampathy		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	47.45	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	24.51	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	7.01	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	16.83	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.86	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By : *S.d.*

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.



For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)

[Signature]
Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/068	Report Date :	08.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/068
Sample Drawn By :	ECI	Sample Received On :	10.03.2023
Sample Collected Date :	09.03.2023	Test Commenced On :	10.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	13.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Melpakkam		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	48.42	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	24.66	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	7.20	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	17.02	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.92	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By :

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.

For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)

Authorized Signatory



#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note: 1. The results relate only to this item tested.
2. Any Correction not attested shall invalidate this report.
3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
5. Total liability of our laboratory is limited to the invoice amount
6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-AAQ-2023/03/078	Report Date :	04.03.2023
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10, Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.		
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-AAQ-2023/03/078
Sample Drawn By :	ECI	Sample Received On :	03.03.2023
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023
Qty of Sample Received :	Filter Paper & 25ml Solution	Test Completed On :	04.03.2023
Sample Description :	Ambient Air	Sampling Method :	IS 5182:P14
Sample Mark:	Thaniyampondi		

S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible limits of CPCB
1.	Respirable Particulate Matter (PM ₁₀)	µg/m ³	50.02	IS 5182:Part 23	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	26.35	IS 5182 Part:24	60
3.	Sulphur Dioxide (as SO ₂)	µg/m ³	8.10	IS 5182:Part 02	80
4.	Nitrogen dioxide (as NO ₂)	µg/m ³	15.20	IS 5182:Part 06	80
5.	Carbon Monoxide (as CO)	mg/m ³	0.82	IS 5182:Part 10	2.0

<--- End of Report --->

Verified By : *S.d.*

Remarks: In the above mentioned location meets the requirements of CPCB standards with respect to the parameters tested.

For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)



[Signature]
Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount.
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.




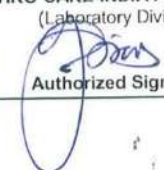


Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-NM-2023/03/036	Report Date :	03.03.2023	
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.			
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-NM-2023/03/036	
Sample Description :	Noise	Monitoring Date :	01.03.2023	
S.No	Locations	Night Time		
		Minimum	Maximum	LEQ
1.	PROJECT SITE	39.2	40.8	40.07
2.	ELANAGAR	37.9	39.2	38.59
3.	RAVATHANALLUR	38.6	40.1	39.41
4.	AZHISOOR	40.1	41.6	40.91
5.	SILAMBAKKAM	39.8	40.6	40.21
6.	MANAMPATHAY	38.5	39.7	39.14
7.	MELPAKKAM	39.1	40.6	39.91
8.	THANIYAMPONDI	39.1	40.3	39.74
Unit		dB (A)		
TNPCCB Max. Permissible Limit for Night Time (Residential Area)		45		
Reference Method		IS 9989		
<--- End of Report --->				
Verified By :	 For ENVIRO CARE INDIA PRIVATE LIMITED (Laboratory Division)  Authorized Signatory			
Remarks: In the above mentioned locations meets the requirements of TNPCCB standards.				



#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount.
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-NM-2023/03/035	Report Date :	03.03.2023	
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10, Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.			
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-NM-2023/03/035	
Sample Description :	Noise	Monitoring Date :	01.03.2023	
S.No	Locations	Day Time		
		Minimum	Maximum	LEQ
1.	PROJECT SITE	50.3	51.9	51.17
2.	ELANAGAR	48	49.2	48.64
3.	RAVATHANALLUR	49.1	50.3	49.74
4.	AZHISOOR	50.5	51.6	51.08
5.	SILAMBAKKAM	51.6	52.9	52.29
6.	MANAMPATHAY	50.3	51.7	51.05
7.	MELPAKKAM	50.1	51.4	50.79
8.	THANIYAMPONDI	50.2	51.3	50.78
Unit		dB (A)		
TNPCB Max. Permissible Limit for Day Time (Residential Area)		55		
Reference Method		IS 9989		
<--- End of Report --->				
Verified By :				
Remarks: In the above mentioned locations meets the requirements of TNPCB standards.	<p style="text-align: right;">For ENVIRO CARE INDIA PRIVATE LIMITED (Laboratory Division)</p> <p style="text-align: right;"> Authorized Signatory</p>			



#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:**
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-WA-2023/03/155	Report Date :	07.03.2023		
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P. S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.				
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-WA-2023/03/155		
Sample Drawn By :	ECI	Sample Received On :	03.03.2023		
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023		
Qty of Sample Received :	2 L	Test Completed On :	07.03.2023		
Sample Description :	Water	Sampling Method :	IS 3025:Part 01 & IS 1622		
Sample Mark:	Project Site (Open Well)				
S. No	PARAMETERS	UNITS	RESULTS	TEST METHOD	Permissible Limit in the Absence of Alternate Source for IS 10500
Chemical parameters:					
1.	Color	Hazen	<1.0	IS 3025:Part 04	15
2.	Odor	--	Agreeable	IS 3025:Part 05	Agreeable
3.	Taste	--	Agreeable	IS 3025:Part 08	Agreeable
4.	Turbidity	NTU	0.8	IS 3025:Part 10	5
5.	pH Value @ 25°C	--	7.1	IS 3025:Part 11	No Relaxation
6.	Temperature	°C	25	IS 3025 Part 09	--
7.	Electrical Conductivity (EC) @ 25°C	µmhos/cm	2334	IS 3025:Part 14	--
8.	Salinity	ppt	0.42	ECI-CHE-SOP-WA-078	--
9.	Total Solids	mg/L	1517	IS 3025:Part 15	--
10.	Total Hardness(as CaCO3)	mg/L	595	IS 3025 Part 21	600
11.	Total Alkalinity (as CaCO3)	mg/L	365	IS 3025 Part 23	600
12.	Iron (as Fe)	mg/L	BDL (DL = 0.01)	IS 3025 Part 53	No Relaxation
13.	Chlorides(as Cl)	mg/L	455	IS 3025:Part 32	1000
14.	Residual Free Chlorine (RFC)	mg/L	< 0.1	IS 3025 Part 26	1.0
15.	Total Dissolved Solids(TDS) @ 105°C	mg/L	1517	IS 3025:Part 16	2000
16.	Calcium(as Ca)	mg/L	139.5	IS 3025:Part 40	200
17.	Magnesium (as Mg)	mg/L	60	IS 3025 Part 46	100
18.	Manganese(as Mn)	mg/L	< 0.03	IS 3025 Part 59	0.3
19.	Copper(as Cu)	mg/L	BDL (DL = 0.01)	IS 3025: Part 42	1.5
20.	Sulphates (as SO ₄ ²⁻)	mg/L	210	IS 3025 Part 24	400

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
 Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:**
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No: ECI-WA-2023/03/155					
21.	Nitrate (as NO ₃)	mg/L	4.6	IS 3025 Part 34	No Relaxation
22.	Fluoride (as F)	mg/L	0.2	IS 3025:Part 60	1.5
23.	Sodium(as Na)	mg/L	38	IS 3025 :Part 45	--
24.	Potassium (as K)	mg/L	10	IS 3025:Part 45	--
25.	Total Kjeldahl Nitrogen(as N)	mg/L	<1.0	APHA23rd4500Norg C	--
26.	Total Phosphorous	mg/L	<0.2	IS 3025 Part 31	--
27.	Free Ammonia (as NH ₃)	mg/L	< 1.0	APHA22nd4500 NH3 C	--
28.	Phenolic Compound (as C ₆ H ₅ OH)	mg/L	< 0.001	IS 3025 Part 43	0.002
29.	Dissolved Oxygen(DO)	mg/L	6.5	IS 3025:Part 38	--
30.	Arsenic (as As)	mg/L	BDL (DL = 0.01)	IS 3025:Part 37	0.05
31.	Mercury(as Hg)	mg/L	BDL (DL = 0.001)	IS 3025 Part 48	No Relaxation
32.	Cadmium (as Cd)	mg/L	BDL (DL = 0.001)	IS 3025 Part 41	No Relaxation
33.	Selenium (as Se)	mg/L	BDL (DL = 0.01)	IS 3025 Part 56	No Relaxation
34.	Cyanide(as CN)	mg/L	< 0.02	IS 3025 Part 27	No Relaxation
35.	Lead(as Pb)	mg/L	BDL (DL = 0.01)	IS 3025 Part 47	No Relaxation
36.	Zinc(as Zn)	mg/L	BDL (DL = 0.01)	IS 3025 Part 49	15
37.	Anionic Surface Active Agent (as MBAS)	mg/L	< 0.01	IS 13428 (Annex K)	1.0
38.	Total Chromium (as Cr)	mg/L	BDL (DL = 0.01)	IS 3025 Part 52	No Relaxation
Microbiological parameters:					
39.	Total coliform(MPN)	MPN/100ml	11.0	IS 1622	--
40.	Faecal Coliforms (MPN)	MPN/100ml	<2.0	IS 1622	--
<p>Opinion: The above sample meets the requirements of Permissible Limit in the Absence of Alternate Source quality (as per IS: 10500) with respect to the parameters tested. NA – Not Applicable, BDL –Below Detectable Limit, DL – Detectable Limit</p> <p style="text-align: center;"><--- End of Report ---></p>					
Verified By: <i>S. di</i>				For ENVIRO CARE INDIA PRIVATE LIMITED (Laboratory Division) Authorized Signatory	

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
 Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:**
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





Proposed Common Bio-Medical Waste Treatment Facility (CBMWTF)
M/s. S. Growth Alliances LLP
Melpakkam Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu.



TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No :	ECI-SO-2023/03/075	Report Date :	07.03.2023	
Customer Name & Address	M/s.S.Growth Alliances LLP No. 10,Old No.122, P.S.Sivaswamy Salai, Sullivans Garden Road, St. Ebbas Avenue, Mylapore, Chennai -600004.			
Customer Reference :	IWO Date:01/03/2023	Sample Reference No :	ECI-SO-2023/03/075	
Sample Drawn By :	ECI	Sample Received On :	03.03.2023	
Sample Collected Date :	01.03.2023	Test Commenced On :	03.03.2023	
Qty of Sample Received :	500 g	Test Completed On :	07.03.2023	
Sample Mark:	Soil-Project Site			
S.No	PARAMETERS	UNITS	RESULTS	TEST METHOD
1.	pH value@ 25°C	--	6.5	IS 2720 Part 26
2.	Electrical Conductivity@25°C	mS/cm	0.83	IS 14767
3.	Organic Carbon	%	0.99	FAO 2020
4.	Cation Exchange Capacity	meq/100g	5.2	FAO 2020
5.	Colour	--	Light Brown	F O 2020
6.	Clay	%	25	FAO 2020
7.	Silt	%	12	FAO 2020
8.	Sand	%	63	FAO 2020
9.	Soil Type	--	Sandy loam	FAO 2020
10.	Texture	--	Moderately Fine	FAO 2020
11.	Cadmium(as Cd)	mg/Kg	<0.1	EPA 3050B
12.	Infiltration	cm/hr	1.8	FAO 2020
13.	Available Nitrogen(as N)	Kg/ha	206	IS 5194
14.	Available Potassium(as K)	Kg/ha	245.5	EPA 3050 B
15.	Iron(as Fe)	%	2.11	EPA 3050 B
16.	Manganese (as Mn)	mg/Kg	80	EPA 3050 B
17.	Chromium(as Cr)	mg/Kg	1.17	IS 13428
18.	Lead(as Pb)	mg/Kg	2.75	EPA 3050 B
19.	Nickel(as Ni)	mg/Kg	<0.1	EPA 3050 B
20.	Copper (Cu)	mg/Kg	6.5	EPA 3050 B
21.	Bulk Density	g/cm ³	1.31	FAO 2020
22.	Particle Size	mm	1.7	IS 2720 Part 4
23.	Permeability Test	cm/hr	2.9	IS 2720 Part 17
24.	Porosity	%	18.52	FAO 2020

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note: 1. The results relate only to this item tested.
2. Any Correction not attested shall invalidate this report.
3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
5. Total liability of our laboratory is limited to the invoice amount.
6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.





TEST REPORT

Accredited by NABL (Chemical & Biological)

Report No: ECI-SO-2023/03/075				
25.	Sodium Absorption Ratio	--	3.5	FAO 2020
26.	Available Phosphorous (as P)	Kg/ha	95.8	IS 10158
27.	Water Holding Capacity	%	25.2	FAO 2020
28.	Zinc (as Zn)	mg/Kg	3	EPA 3050 B

<-- End of Report -->

Verified By : *S.d*

Remarks : --



For ENVIRO CARE INDIA PRIVATE LIMITED
(Laboratory Division)

[Signature]
Authorized Signatory

#43, 2nd Street, Harvey Nagar, Arasaradi, Madurai - 625016 Tel: 0452 4355103
Email: lab@envirocareindia.com | Web: www.envirocareindia.com

- Note:**
1. The results relate only to this item tested.
 2. Any Correction not attested shall invalidate this report.
 3. Report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
 4. Unless informed by customer, the test items will not be retained for more the 15 days from date of issue of test report.
 5. Total liability of our laboratory is limited to the invoice amount
 6. Any dispute arising out of this report is subjected to Madurai Jurisdiction Only.

