



P-226-GMSL-EIA-DISTILLERY-52021

# SUMMARY ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REPORT

(IN ENGLISH AND MARATHI)

FOR

EXPANSION OF SUGAR FACTORY FROM 4500 TCD TO 7500 TCD  
(INCREASE BY 3,000 TCD), CO-GEN PLANT FROM 14.85 MW TO 30 MW  
(INCREASE BY 15.15 MW) AND ESTABLISHMENT OF  
110 KLPD MOLASSES/CANE JUICE BASED DISTILLERY

BY

**GOKUL MAULI SUGARS LTD.**

Tadwal, Tal: Akkalkot,  
District: Solapur, Maharashtra.

PREPARED BY



**EQUINOX ENVIRONMENTS (I) PVT. LTD.,**

ENVIRONMENTAL; CIVIL & CHEMICAL ENGINEERS, CONSULTANTS & ANALYSTS,  
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**AN ISO 9001 : 2015 & QCI - NABET ACCREDITED ORGANIZATION**



**AUGUST 2021**





# GOKUL MAULI SUGARS LIMITED

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Tel : 020-2553 9999, 2553 3336 Email : office@gokulmauli.com CIN NO. : U15422PN2015PLC154088

REF NO.: GMSL / 99/2021-22

DATE: 23.07.2021

To,  
The Member Secretary,  
Maharashtra Pollution Control Board (MPCB);  
3<sup>rd</sup> & 4<sup>th</sup> Floor, Kalpataru Point,  
Sion Circle, Sion (E),  
Mumbai - 400 022

**Sub.:** Application for 'Public Hearing' to be conducted for expansion of **Sugar Factory** from **4500 TCD to 7500 TCD, Co-generation from 14.85 MW to 30 MW** & establishment of **110 KLPD Molasses (B & C Heavy)/Cane Juice based Distillery Unit** by – **Gokul Mauli Sugars Ltd. (GMSL)**, located at Gat No. 69, 70, 71, 72, 73, 76/1/2, 488, 493, 494, Tadwal, Tal.: Akkalkot, Dist.: Solapur.

**Ref.:** 'Terms of Reference'(ToR) granted vide letter no. J-11011/234/2021-IA-II(I) dated 05.06.2021. Copy enclosed at **Enclosure – I**.

Dear Sir,

This has reference to an online Form- I application submitted for grant of ToRs to MoEFCC; New Delhi on 01.06.2021. The same was in respect of expansion of Sugar Factory from 4500 TCD to 7500 TCD, Co-generation from 14.85 MW to 30 MW & establishment of 110 KLPD Molasses (B & C Heavy)/Cane Juice based Distillery Unit by – **Gokul Mauli Sugars Ltd., Solapur.**

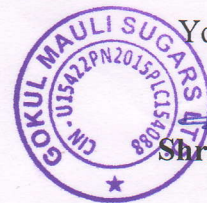
Subsequently, standard ToRs were recommended to industry. Refer **Enclosure – I** for copy of ToR letter. Therein, directions were given to conduct Public Hearing w.r.t. our project. Now, in order to conduct Public Hearing, we hereby are submitting all the relevant documents and information to your office.

Alongwith the Public Hearing application, a draft EIA Report as per the generic structure stipulated in MoEF Notification No. S.O.1533 (E) dated 14.09.2006 amendments thereto; and Executive Summary Report in two languages (English and Marathi) are enclosed separately. The same provide details of Pollution Control Facilities, Production Processes and Raw Materials as well as Finished Products and Environmental Management Plan (EMP) etc. regarding the existing and proposed expansion unit.

'Twenty Sets' of various documents, as mentioned above and equivalent number of soft copies of same have been submitted for your information and necessary further action. Also, a Demand Draft of Rs. 1,00,000/- (Rs. One Lakh only) bearing No.279758 drawn on Lokmangal Co. Op. Bank Ltd., Dated 19/07/2021 towards the Public Hearing charges, as decided by the govt., has been presented herewith.

Please do the needful and oblige.

Thanking you.



Yours faithfully

**Shri Ashish V. Patil**  
(Director)

- Encl.:** 1. Executive Summary of Project  
2. A Draft EIA Report  
3. A D.D. bearing No. 279758 dated 19/07/2021 drawn on Lokmangal Co. Op. Bank Ltd.,





## CERTIFICATE

Declaration by Expert contributing to the Draft EIA in respect of proposed expansion of Sugar Factory from 4500 TCD to 7500 TCD, Cogen Plant from 14.85 MW to 30 MW & establishment of 110 KLPD Molasses/Cane Juice based Distillery Unit. Project will be implemented by **Gokul mauli Sugars Ltd. (GMSL)**, located at Tadwal, Tal: Akkalkot, District: Solapur, Maharashtra.

We, hereby, certify that we were a part of the Draft EIA team in the following capacities that developed the above EIA.

**EIA Outward No.** P-226-GMSL-EIA-DISTILLERY-52021

**EIA Coordinators**


Name : Dr. Sangram Ghugare







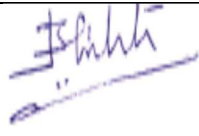
Period of Involvement : February 2019 to August 2021




Contact Information : [eia@equinoxenvi.com](mailto:eia@equinoxenvi.com)

### Functional Area Expert:


Sr. No.	Functional Area	Name of the expert/s	Involvement (Period & Task)	Signature
1	WP	Dr. Sangram Ghugare	<b>February 2019 to July 2021</b> <ul style="list-style-type: none"><li>• Study of process and operations</li><li>• Site visit and finalization of water sampling locations</li><li>• Preparation of water balance and identification of wastewater generation.</li><li>• Evaluation of water pollution &amp; control management</li><li>• Identification of impacts, suggestion and finalization of mitigation measures</li><li>• Study on Treatment of effluents through existing ETP and to be upgraded under proposed expansion was contemplated and designs were done accordingly.</li></ul>	



Sr. No.	Functional Area	Name of the expert/s	Involvement (Period & Task)	Signature
2	EB	Prof. (Dr.) Jay Samant	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Selection of Site for conducting ecological &amp; wildlife surveys.</li> <li>• Interaction with Govt. offices and agencies for certain secondary data and information pertaining to region specific issues</li> <li>• Review of rules, legislation and criteria towards knowing and understanding inclusion in the study region of any eco-sensitive zones, wild life sanctuary.</li> <li>• Collection, compilation and presentation of the data as well as incorporation of same in to the Draft EIA report</li> </ul>	
3	SE	Dr. Anuradha Samant	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Collection of data on socio-economic aspects in study area through surveys.</li> <li>• Public opinions and recording of events for future industrialization in the study area.</li> <li>• Study of sociological aspects like human settlement, demographic and infrastructural facilities available in study area.</li> </ul>	
4	AP	Mr. Yuvraj Damugade	<p><b>March 2019- August 2019</b></p> <ul style="list-style-type: none"> <li>• Involved in detailed study of mass balance w.r.t. raw materials &amp; products especially from view point of process emissions.</li> <li>• Site visit and finalization sampling locations</li> <li>• Identification of impact and suggesting the mitigation measures.</li> </ul>	
5	AQ	Mr. Yuvraj Damugade	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Designing of Ambient AQM network for use in prediction modeling and micro metrological data development</li> <li>• Development and application of air quality models in prediction of pollutant dispersion,</li> <li>• Plotting of isopleths of GLCs, Worst case scenarios prediction w.r.t. source and receptors.</li> </ul>	
6	HG	Dr. J. B. Pishte	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Hydro geological studies, data processing; analysis and evaluation, Ground water table measurement and monitoring network methodology</li> </ul>	
7	GEO			

Sr. No.	Functional Area	Name of the expert/s	Involvement (Period & Task)	Signature
			<p>preparation.</p> <ul style="list-style-type: none"> <li>• Planning and scheduling of groundwater sampling stations in the region.</li> <li>• Study of geology &amp; general geological configuration of the region as well as sub-surface geology.</li> <li>• Determination of impact and suggesting mitigation measures</li> </ul>	
8	SHW	Dr. Sangram Ghugare	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Detailed study of manufacturing process and mass balance.</li> <li>• Solid wastes generation in different steps of manufacturing was identified and their quantification done was checked.</li> <li>• Identification of various hazardous wastes generated through manufacturing process.</li> <li>• Practices of storage and disposal of HW its impact and mitigation measures.</li> </ul>	
9	RH	Mr. Vinod Sahasrabudhe	<p><b>March 2019- August 2019</b></p> <ul style="list-style-type: none"> <li>• All the necessary literature for processes storage of hazardous chemicals was studied before visit.</li> <li>• Site visit and Verification of adequacy of on-site emergency preparedness plan for proposed unit was done.</li> <li>• Identification of probable emergencies and procedures for preparedness for handling the same was verified.</li> <li>• Worst case analysis by using ALOHA, Ware house safety measures, suggestion of mitigation measures.</li> </ul>	
10	NV	Mr. Vinay Kumar Kurakula	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Verification of noise levels Monitoring (both work zone and ambient) in the industrial premises and study region</li> <li>• Finalization and verification of sampling locations, ambient noise monitoring stations and the data collected.</li> <li>• Land use land cover mapping using NRSC Satellite image,</li> <li>• Satellite image processing, Image classification, Technical analysis and study for setting up of facility, planning of storage facility.</li> </ul>	
11	LU			



Sr. No.	Functional Area	Name of the expert/s	Involvement (Period & Task)	Signature
12	SC	Mr. B. S. Lole	<p><b>March 2019- May 2019</b></p> <ul style="list-style-type: none"> <li>• Involvement physical analysis &amp; characterization of the soils.</li> <li>• Identification of Impact and its mitigation measures</li> <li>• Interpretation of soil analysis, results and data including comparison of same with standard soil classification.</li> <li>• Collection, study and evaluation of soil information from data obtained from secondary sources &amp; its interpretation.</li> </ul>	

Declaration by the Head of the Accredited Consultant Organization/authorized person:

I, **M/s. Equinox Environments (I) Pvt. Ltd. (EEIPL)**; Kolhapur, Environmental & Civil Engineers, Consultants and Analysts, hereby confirm that the above mentioned experts were involved in preparation of Draft EIA and Executive Summary in respect of expansion of Sugar Factory from 4500 TCD to 7500 TCD, Cogen Plant from 14.85 MW to 30 MW & establishment of 110 KLPD Molasses/Cane Juice based Distillery Unit by **Gokul Mauli Sugars Ltd. (GMSL)**, located at Tadwal, Tal: Akkalkot, District: Solapur, Maharashtra State.

I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement.

Signature:



**Name:** Dr. Sangram Ghugare

**Designation:** Chairman & MD

**Name of the EIA Consultant Organization:** M/s. Equinox Environments (I) Pvt. Ltd. (EEIPL); Kolhapur.

**NABET Certificate No. & Valid Till:** NABET/EIA/1821/ RA 0135 valid up to 21.10.2021

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**Summary of Draft EIA Report**  
**For**  
**Expansion Of Sugar Factory From 4500 TCD To 7500 TCD,**  
**Co-Generation Plant From 14.85 MW To 30 MW &**  
**Establishment of 110 KLPD Molasses/ Cane Juice Based Distillery**  
**By**  
**Gokul Mauli Sugars Ltd. (GMSL),**  
A/p: Tadwal, Tal.: Akkalkot, Dist.: Solapur

**1) THE PROJECT**

The industry - ‘Gokul Mauli Sugars Ltd. (GMSL)’ is located at Gat No.: 69, 70, 71, 72, 73, 76/1/2, 488, 493, 494, Tadwal, Tal.: Akkalkot, Dist.: Solapur. Under expansion the crushing capacity will be increased from 4,500 TCD to 7,500 TCD (increase by 3,000 TCD), co-generation plant from 14.85 MW to 30 MW (increase by 15.15 MW) and establishment of 110 KLPD Molasses/Sugarcane juice based distillery.

As per the provisions of “EIA Notification No. S.O. 1533 (E)” dated 14.09.2006; as amended vide Notification No. “S.O. 1960 (E)” dated 13.06.2019; the proposed expansion of Sugar Factory, Cogeneration Plant are listed at activity 5(j) and 1(d) under ‘Category B’ while Molasses & Cane Juice based distillery activity at 5(g- i & ii) under Category ‘A’. As the Sugar, Cogen & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar, Cogen and establishment of Distillery is being submitted at ‘Ministry of Environment, Forests and Climate Change (MoEFCC); New Delhi’ for grant of ToRs on 01.06.2021 and Standard ToRs granted on 05.06.2021. A copy is enclosed separately.

Details of capital investment are given in table 1.

**Table 1 Project Investment Details**

No.	Industrial Unit	Capital Investment (Rs. Cr)		
		Existing	Proposed	Total
1	Sugar Factory & Co-gen plant	301.11	146.46	447.57
2	Distillery Unit	--	80.0	80.0
	<b>Total</b>	<b>301.11</b>	<b>226.46</b>	<b>527.57</b>

Proposed expansion project will be formulated in such a fashion and manner so that the utmost care of Safety Norms and Environment Protection shall be taken.

**Table 2 Working Pattern**

No.	Type of Activity	Days of Operation (No.)		
		Season	Off- Season	Total
1.	Sugar Factory	180	--	180
2.	Co-gen Plant	180	140	320
3.	Distillery	180	150	330

## 2) THE PLACE

Proposed expansion of sugar factory, co-gen plant and establishment of distillery shall be carried out at existing premises of GMSL. Total land area acquired by the GMSL is 44.41 Ha. Out of this total built up area under sugar factory, co-gen plant & distillery is 9.33 Ha. A no objection certificate for the proposed expansion projects activities has been obtained from the Tadwal Grampanchayat. Same is presented at certificates and other documents of the EIA report. Detailed area break-up is presented at Table 3 & copy of plot layout is enclosed separately.

**Table 3 Area Statement of GMSL**

No.	List of area	Area (Sq. M.)		
		Existing	Expansion	Total
1	<b>Total Plot Area</b>			<b>4,44,100</b>
2	<b>Built-up Area</b>			
	i. Sugar Factory	15,627	16,580	32,207
	ii. Cogen Plant	7,880	2,377	10,257
	iii. Distillery Unit	--	4,600	4,600
	iv. Area under Road	28,725	--	28,725
	v. Residential Colony	9,180	8,400	17,580
	<b>Total Built-up Area</b>	<b>61,412</b>	<b>31,957</b>	<b>93,369</b>
3	Green Belt Area (33% of total plot area)	15,000	1,31,553	1,46,553
4	Total Open Area	3,67,688	--	<b>2,04,178</b>

## 3) THE PROMOTERS

The promoters of GMSL are well experienced in the field of Sugar, Co-gen & Distillery and have made a thorough study of entire project planning as well as implementation schedule. The names and designations of the promoters are as under-

**Table 4 List of Promoters**

No.	Name	Designation
1	CA Vyankatrao P. Patil	Chairman
2	Mrs. Chandrakala V. Patil	Director
3	Shri Dhiraj G. Shinde	Managing Director
4	Shri Ashish V. Patil	Director

## 4) THE PRODUCTS

Details of products that are being manufactured under existing & expansion of sugar factory and co-gen plant as well as those to be manufactured under proposed distillery are represented in following table.



**Table 5 List of Products**

Industrial unit	Product& By-product	UoM	Quantity		
			Existing	Expansion	Total
<b>Sugar Factory (4500 TCD to 7500 TCD)</b>	Sugar (11%)*	MT/D	495	330	825
	<b>By-Product</b>				
	Bagasse (30%)*	MT/D	1350	900	2250
	Press Mud (4%)*	MT/D	180	120	300
	Molasses (4%)*	MT/D	180	120	300
<b>Co-gen Plant (14.85 MW to 30 MW)</b>	Power Generation	MW	14.85	15.15	30
<b>Distillery Unit (110 KLPD)</b>	Rectified Spirit/ ENA/ Ethanol/ Absolute Alcohol (AA)	KLPD	--	110	110
	<b>By-product</b>				
	Fusel Oil	MT/D	--	7	7
	CO <sub>2</sub>	MT/D	--	91	91

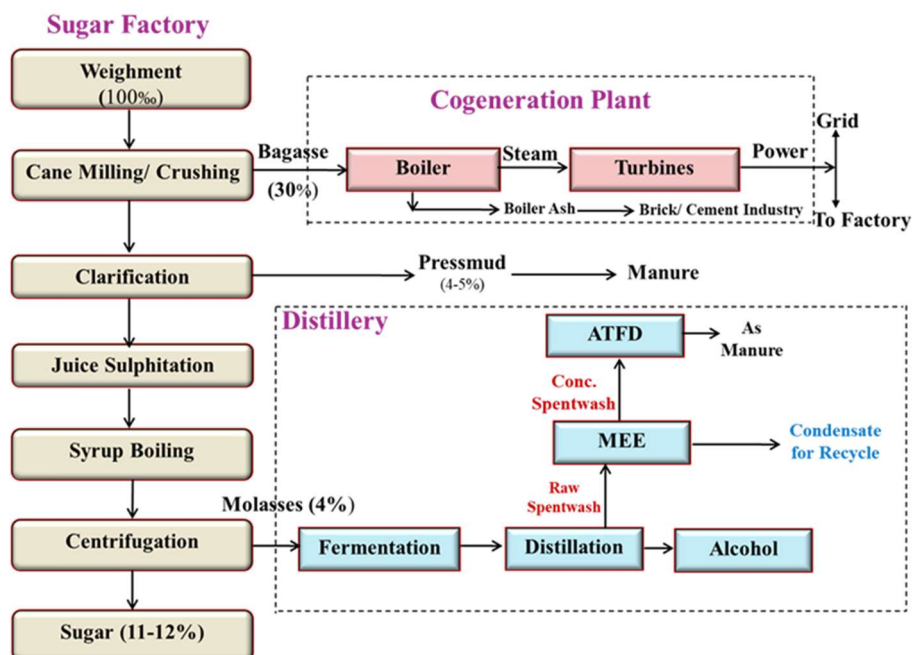
\* - Percent of Cane Crushed

**Table 6 List of Raw Materials**

Industrial Unit	Name of Raw Material	Unit	Quantity	
			Existing	After Expansion
<b>Sugar Factory</b>	Sugarcane	MT/ D	4500	7500
	Lime	MT/ D	10	17
<b>Co-generation</b>	Bagasse	MT/ D	1056	2112
<b>Proposed Distillery</b>	Molasses or	MT/ D	--	291
	Sugarcane for Juice	MT/ D	--	1100
	Yeast	MT/ D	--	0.25
	Urea	MT/ D	--	4
	De-foaming Oil	MT/ D	--	13

**5) MANUFACTURING PROCESS**

**Figure 1 Integrated Manufacturing Process Operations**



For more Details of manufacturing process and flow chart for sugar, Co-gen plant & Distillery are given in Chapter 2 of EIA Report.

## 6) THE PURPOSE

Sugarcane potential, agro-climatic conditions, cost of conversion & overheads etc are the major deciding factors for fixing the crushing capacity of sugar factory. Today, sugar factories cannot survive in healthy condition on a single product i.e. sugar. Thus, it is essential to develop sugar factory into an affiliated complex so as to utilize the valuable by-products more profitably. Bagasse based cogeneration of steam and electricity has been practiced since long time in sugar mills. Molasses is also another important by-product of the sugar industry. Alcohol has assumed very important place in the Country's economy. It is a vital raw material for a number of chemicals and also a renewable source of energy. It has been a source of a large amount of revenue by way of excise duty levied by the Govt. on alcoholic liquors. It has a potential as fuel in the form of power alcohol for blending with petrol. Also, the fermentation alcohol has great demand in countries like Japan, U.S.A., Canada, Sri Lanka etc., as the synthetic alcohol produced by these countries, from naphtha of petroleum crude, is not useful for beverages. Considering the above facts as well as availability of raw material, management of GMSL decided to go for expansion.

## 6) ENVIRONMENTAL ASPECTS

GMSL has implemented an effective 'Environmental Management Plan' and various aspects of the same are as follows:-

### A) Water Use and Effluent Generation and its Treatment

#### a. Water Use

Details of water usage in existing, expansion as well as proposed activities are as follows-

**Table 7 Details of Water Consumption in Sugar Factory & Co-gen Expansion Unit**

No.	Description	Quantity(M <sup>3</sup> /Day)	
		Existing	After Expansion
1	Domestic	20 (5 <sup>#</sup> +15 <sup>Ω</sup> )	40 (10 <sup>#</sup> +30 <sup>Ω</sup> )
2	Industrial		
a)	Manufacturing process	1347*	2200*
b)	Cooling & Boiler feed	225*	450*
c)	DM Plant	45 <sup>#</sup>	90 <sup>#</sup>
d)	Lab & Washing	5*	8*
e)	Ash Quenching	2*	3*
	<b>Industrial Total</b>	<b>1624 (1579*+45<sup>#</sup>)</b>	<b>2751 (2661*+90<sup>#</sup>)</b>
3	Green Belt & Gardening	90*	750*
	<b>Grand Total</b>	<b>1734 (1669*+15<sup>Ω</sup>+50<sup>#</sup>)</b>	<b>3541 (3411*+30<sup>Ω</sup>+100<sup>#</sup>)</b>
	Fresh Water Consumption (Norm:100 lit./ MT of cane)	13	12

**Note:** # - Fresh water taken from ground water, \* - Cane condensate, Ω -STP & ETP treated water.



**Table 8 Details of Water Consumption in Molasses Distillery Unit  
(During Sugarcane Crushing & Non- Crushing Season Days)**

No	Description	Water Consumption (M <sup>3</sup> /Day)	
		Cane Crushing Season	Cane Non- Crushing Season
1	Domestic	3 <sup>#</sup>	3 <sup>#</sup>
2	Industrial		
a)	Process	873 <sup>*</sup>	873 <sup>*</sup>
b)	Cooling	100 <sup>*</sup>	100 <sup>#</sup>
c)	Lab & Washing	6 <sup>*</sup>	6 <sup>#</sup>
	<b>Industrial Total</b>	<b>979 (106<sup>*</sup> + 873<sup>*</sup>) 100% Recycle</b>	<b>979 (106<sup>#</sup> + 873<sup>*</sup>) 99% Recycle</b>
	<b>Grand Total</b>	<b>982 (3<sup>#</sup> + 106<sup>*</sup> + 873<sup>*</sup>)</b>	<b>982 (109<sup>#</sup> + 873<sup>*</sup>)</b>
	Fresh Water Consumption (Norm: 10 KL/KL of Alcohol)	0	1.0

Note: - # - Fresh water taken from Ground Water, ♣ - Recycled water from CPU, \* - Cane condensate.

**Table 9 Details of Water Consumption for Proposed Cane Juice based Distillery**

No.	Description	Water Consumption (CMD)
1	Domestic	3 <sup>#</sup>
2	Industrial	
	a. Cooling Make up	100 <sup>*</sup>
	b. Lab & Washing	6 <sup>*</sup>
	<b>Industrial Total</b>	<b>106<sup>*</sup></b>
	<b>Grand Total</b>	<b>109 (3<sup>#</sup>+ 106<sup>*</sup>)</b>
	Fresh Water Consumption (Norm: 10 KL/KL of Alcohol)	0

Note : # - Fresh water from ground water, \* - Cane condensate

**Sugarcane Condensate Balance:**

**Table 10 Cane Condensate Balance**

No.	Description	Quantity (CMD)
1.	Cane crushing capacity	7500 TCD
2.	Cane condensate- 52% (by considering losses)	3900 CMD
3.	Condensate used for sugar & cogen plant	3411 CMD
4.	Excess cane condensate	489 CMD

**b. Effluent treatment:**

Effluent generated from existing, expansion & proposed activities is given in following table-

**Table 11 Effluent Generation from Sugar Factory & Cogen Plant**

Description	Quantity(M <sup>3</sup> /Day)		Disposal
	Existing	After Expansion	
<b>Domestic</b>	15	31	<b>Existing</b> - Septic tank followed by soak pit <b>Expansion</b> – Proposed STP
<b>Industrial</b>			
a) Process	245	410	Treated in existing ETP having primary, secondary & tertiary treatment units; will be duly upgraded
b) Cooling & Boiler	48	96	
c) DM Plant	45	90	
d) Lab & Washing	5	8	
e) Ash Quenching	--	--	
<b>Industrial Total (a+b+c+d+e)</b>	<b>343</b>	<b>604</b>	
Norm:100 lit./ MT of cane	<b>76</b>	<b>81</b>	

**Table 12 Effluent Generation from Distillery Unit**

Description	Quantity(M <sup>3</sup> /Day)		Disposal
	Molasses Based	Cane Juice Based	
Domestic	2	2	<b>Existing</b> - Septic tank followed by soak pit <b>Expansion</b> – Proposed STP
Industrial			
Process	Raw Sp. wash – 880	Raw Sp. wash - 440	Raw spentwash shall concentrated in Multi Effect Evaporator (MEE). Conc. Spentwash (1.7 KL/KL) shall be dried for powder formation (ATFD). Other effluent from distillery will be treated in proposed distillery CPU. Treated effluent will be fully recycled in process to achieve ZLD.
	Conc. Sp. wash – 192	Conc. Sp. wash - 96	
	Condensate- 812 (688 MEE + 124 ATFD)	Condensate- 394 (344 MEE + 50 ATFD)	
	Spent Lees – 154	Spent Lees - 72	
Cooling blow down	10	10	
Lab & Washing	6	6	
DM Plant	--	--	
<b>Ind. Total</b>	Conc. – 192 Other – 982	Conc. – 96 Other – 482	

**i) Domestic Effluent –**

Domestic effluent from existing activities of GMSL sugar factory and co-gen plant is 14M<sup>3</sup>/Day same is being treated separately in septic tanks followed by soak pits provided in a decentralized manner. After implementation of expansion project, total domestic effluent from GMSL campus shall be 34 M<sup>3</sup>/ Day (Domestic effluent from sugar factory & co-gen plant – 32 M<sup>3</sup>/ Day and to that of distillery 2 M<sup>3</sup>/ Day). Same shall be treated in proposed Sewage Treatment Plant (STP) of 40 CMD capacity and the treated effluent shall be reused for flushing and also used for gardening.

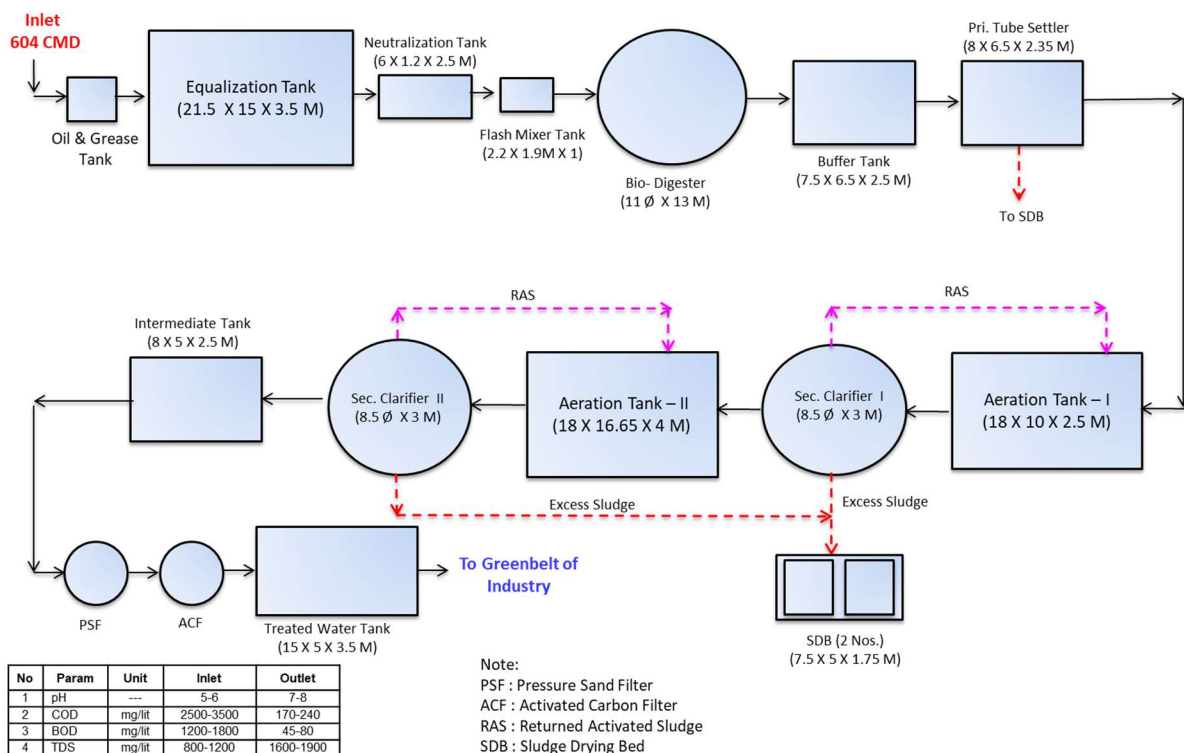
## ii) Industrial Effluent –

From existing sugar factory & co-gen plant operations, trade effluent @ 343 CMD is generated. Subsequent to implementation of expansion, total effluent generated from sugar factory and co-gen plant activities @ 604 M<sup>3</sup>/Day shall be forwarded to the existing ETP in the GMSL premises. The existing ETP is having capacity of 1200 CMD & sufficient for treatment of effluent after expansion too. The treated water from ETP will be used to gardening & green belt development in own premises. ETP flow diagram is presented at figure 2. Further, industry is having CPU of 1200 M<sup>3</sup>/D capacity & flowchart is presented at figure 4.

From proposed molasses distillery unit, raw spentwash about 880 M<sup>3</sup>/D will be generated. Here, raw spentwash will be concentrated in Multi Effect Evaporator (MEE). Concentrated spentwash @ 192 M<sup>3</sup>/D will be dried for powder formation (ATFD). Other effluents viz. spent lees @ 154 M<sup>3</sup>/D, condensate @ 812 M<sup>3</sup>/D (688 MEE+124 ATFD), cooling blow down @ 10 M<sup>3</sup>/D and lab-wash @ 6 M<sup>3</sup>/D will be treated in proposed CPU. Treated water from CPU will be reused for industrial operations, thereby achieving Zero Liquid Discharge (ZLD) for process effluent.

Raw spentwash generated from cane juice distillery unit @ 440 CMD will be concentrated in Multi Effect Evaporator (MEE). Conc. Spentwash @ 96 CMD (0.8 KL/KL) will be dried for powder formation (ATFD). Other effluents viz. spent lees @ 72 M<sup>3</sup>/D, Condensate- 394 M<sup>3</sup>/D (344 MEE + 50 ATFD), cooling blow down @ 10 M<sup>3</sup>/D and lab-wash 6 M<sup>3</sup>/D will be treated in distillery CPU having capacity 1000 M<sup>3</sup>/D. Treated water from CPU will be then reused for industrial operations.

**Figure 2 Flow Chart for Sugar factory ETP**

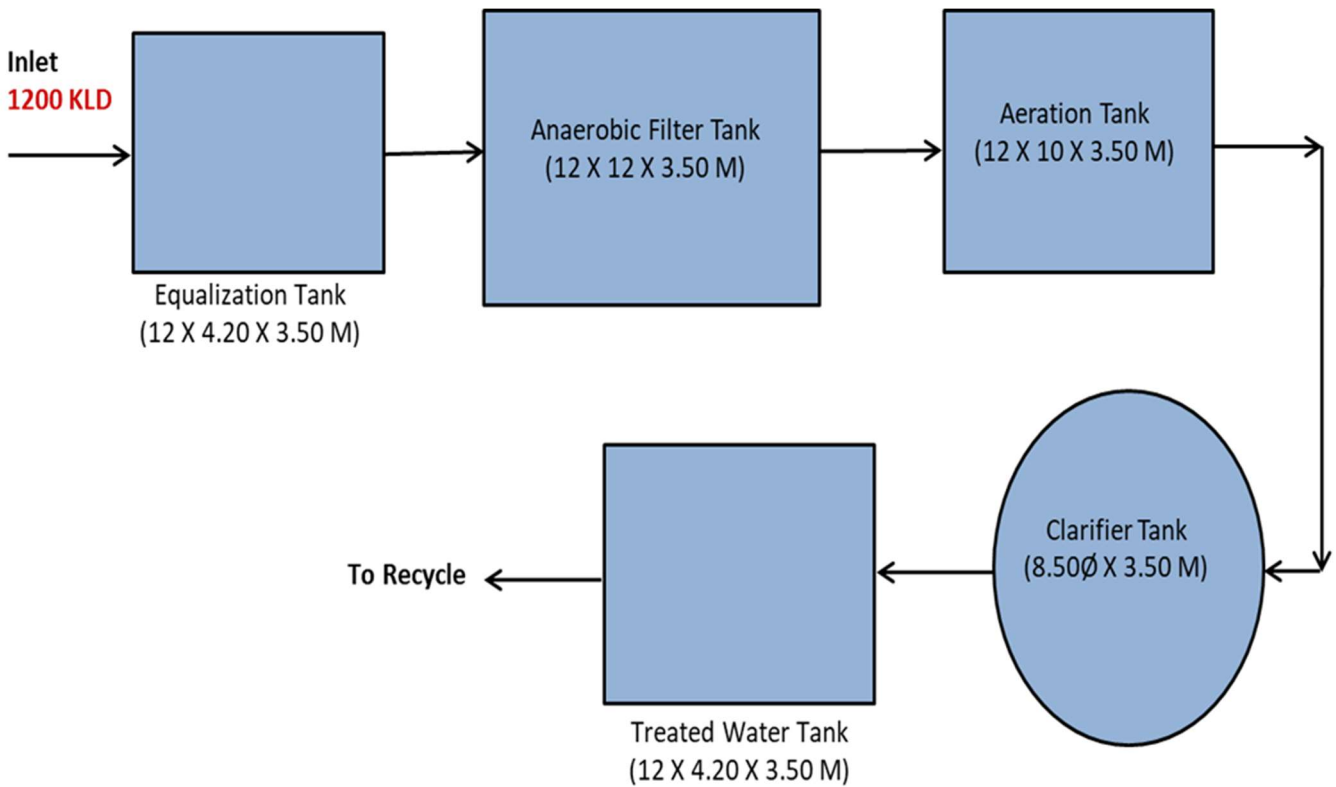


**Figure 3 Existing Sugar Factory ETP Units**

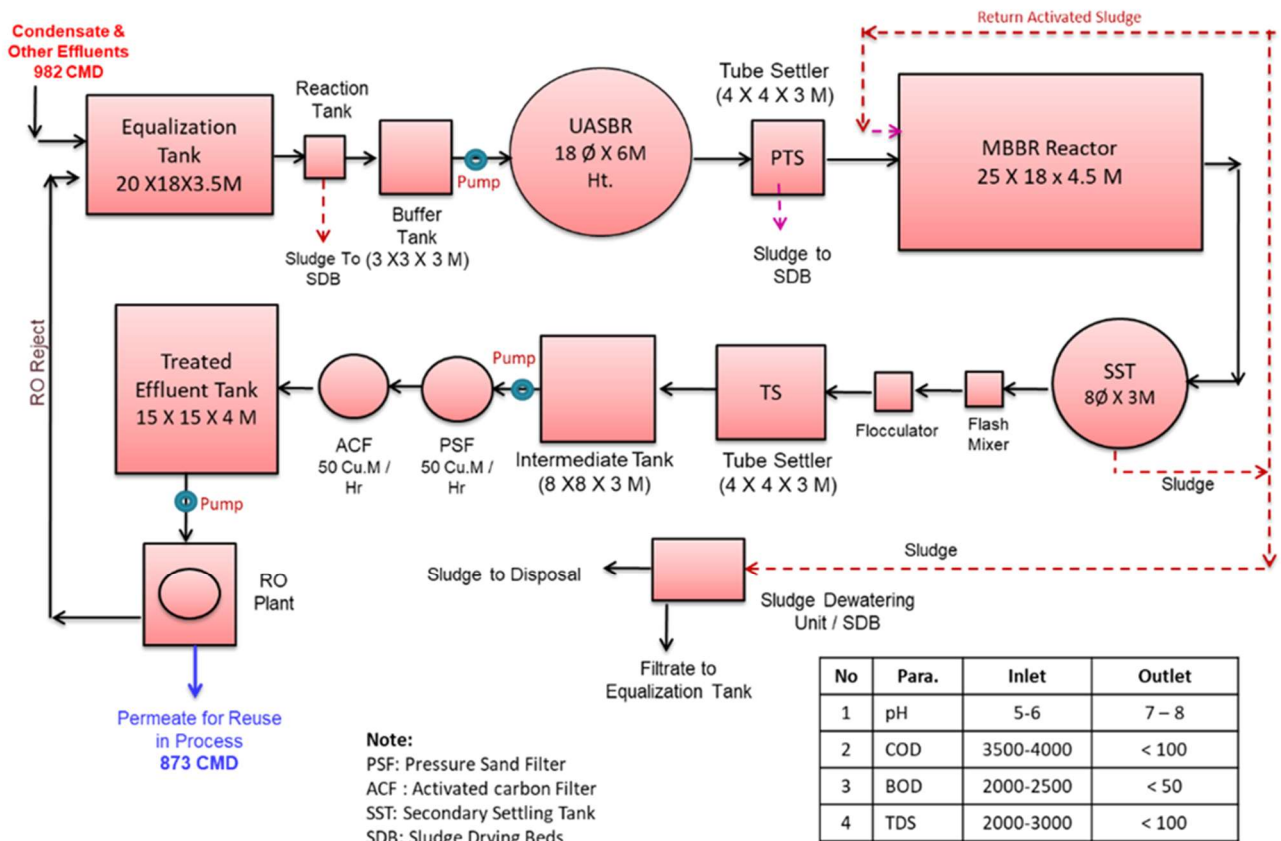




**Figure 4 Flow Chart of Sugar Factory CPU**



**Figure 5 Process Flow Diagram of Proposed CPU for Distillery**



**Figure 6 Existing Sugar Factory CP Units**

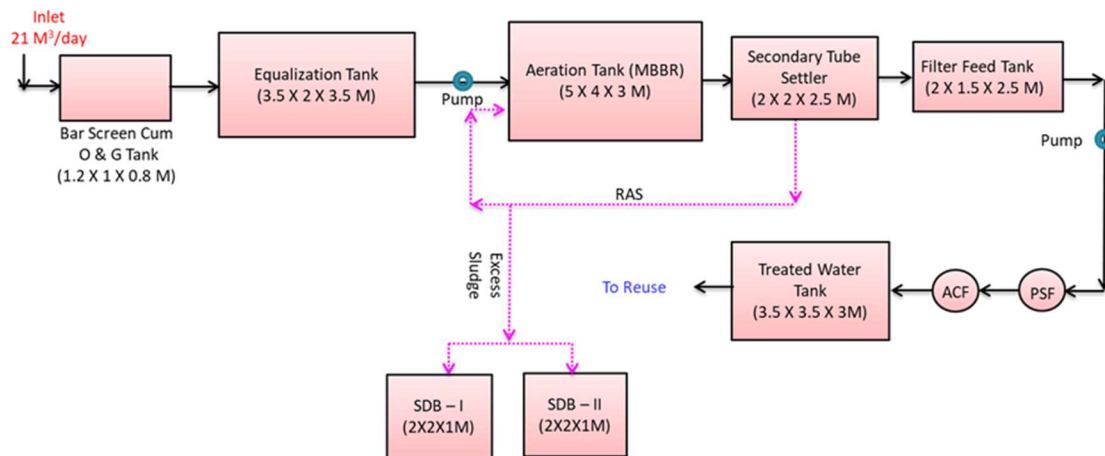




**Figure 7 Flow Meters & Online Continuous Monitoring System**



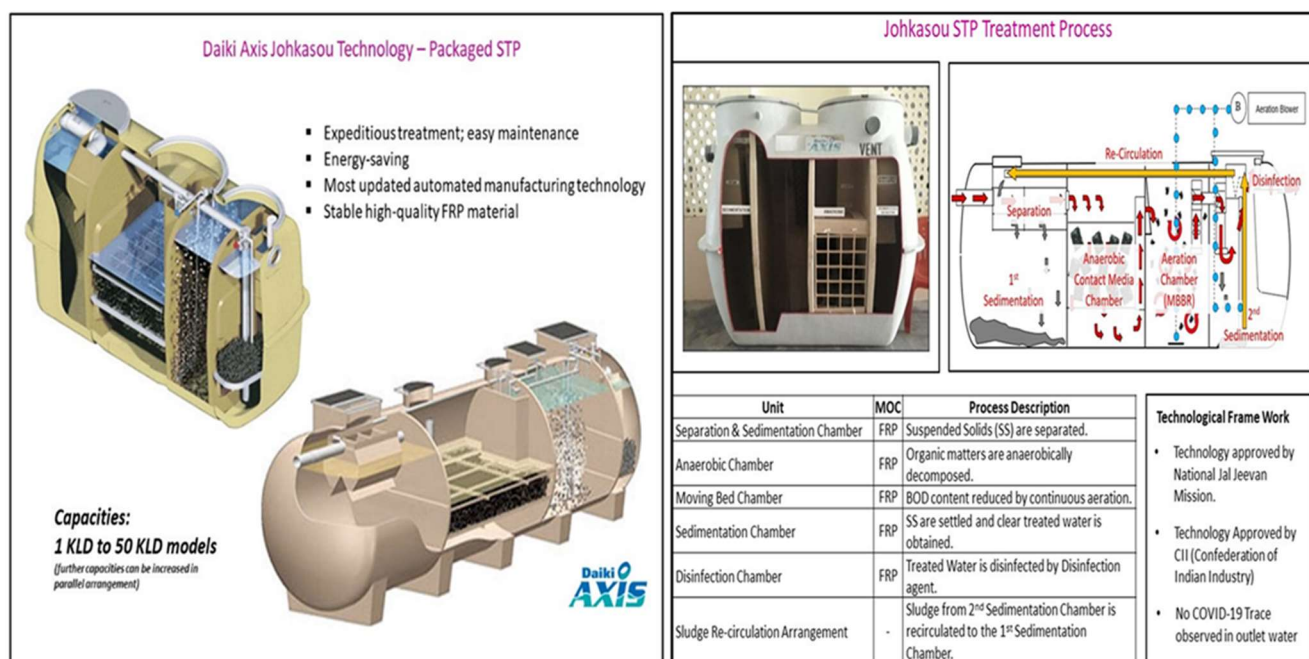
**Figure 8 Process Flow Diagram of STP (Proposed)**



No	Parameters	Unit	Inlet	Outlet
1.	pH	---	6.5 - 7.5	7.2 - 7.5
2.	COD	mg/lit	500 - 600	< 30
3.	BOD	mg/lit	250 - 300	< 10
4.	TSS	mg/lit	250 - 400	< 5
5.	O & G	mg/lit	25 - 30	< 10

Note :  
 •PSF : Pressure Sand Filter  
 •ACF : Activated Carbon Filter  
 •RAS : Return Activated Sludge  
 •SDB : Sludge Drying Bed

**Figure 9 Process Technology of STP**



**B) Air Emissions:**

Under existing activity of sugar and co-gen factory operations, 1 boiler of 100 TPH capacity and 3 nos. of 600 KVA DG sets are installed on site. Boiler is provided with ESP as Air Pollution Control (APC) equipment followed by stack of 85 M. height AGL. Further, under expansion activity of sugar and Co-gen boiler of 100TPH with stack of 85M height AGL will be installed. ESP shall be provided as APC equipment for the same. Steam required for proposed distillery unit will be taken from proposed 100 TPH boiler of sugar & cogeneration plant.

Following table gives details of existing and proposed boilers and D.G. Sets.

**Table 13 Details of Boiler and Stack in GMSL**

No.	Description	Existing		Proposed
		Boiler 1	D.G. Set	Boiler 2
1	Attached to-	Boiler 1	D.G. Set	Boiler 2
2	Capacity	100 TPH	600 KVA (3 Nos.)	100 TPH
3	Fuel type	Bagasse	HSD	Bagasse
4	Quantity	1056 MT/D	180 Lit/Hr.	1056 MT/D
5	Material of construction	R.C.C	MS	R.C.C
6	Shape	Round	Round	Round
7	Height, AGL	85 M	5 M (ARL)	85 M
8	Diameter	4.5 M	0.2 M	4.5 M
9	Pollution Control equipment	ESP	Silencer & Acoustic Enclosure	ESP



**Figure 10 Existing Boiler & APC Equipments**



### **C) Noise Pollution Aspect:**

#### **1. Sources of Noise**

- i. The existing sugar factory and co-gen; noise generating sources are the boiler house, turbine rooms, cane crushing section and mill house, etc.
- ii. In the distillery, very high noise generating sources will not exist. D.G. set will be one of the sources of noise pollution. Operation of same will be only in case of power failure. Expected noise levels in the section will be about 70 dB(A) or so. Adequate noise abatement measures like silencer & maintenance of pumps, motors, and compressors will be carried out and enclosures will be provided to abate noise levels at source. Moreover, enclosures to the machinery will be provided wherever possible.
- iii. Fermentation section & distillation section will be the other minor noise generating sources. The expected noise levels in these sections will be in the range of 70 to 80dB(A).
- iv. Adequate green will be developed in phase wise manner in and around the industry. So that it will further attenuate the noise levels.

#### **2. Control Measures**

Isolation, separation and insulation techniques to be followed, PPEs in the form of earmuffs, earplugs etc. will be provided to workers. D.G. Sets are enclosed in a separate canopy to reduce the noise levels.

## D) Hazardous Wastes

**Table 14 Hazardous Waste Details**

No.	Industrial Unit	Category	Quantity (MT/Yr.)		Disposal
			Existing	After Expansion	
1	Sugar, Co-gen & Distillery	Spent Oil – Cat.5.1	0.7	1	Forwarded to authorized re-processor
		Contaminated Cotton Waste- Cat. 33.3	0.2	0.5	
		Empty Containers- Cat. 33.1	30	45	Forwarded to authorized re-seller

## E) Solid Wastes

**Table 15 Solid Waste Generation & Disposal Details**

No.	Unit	Type	Quantity (MT/D)		Disposal
			Existing	After Expansion	
1	Sugar Factory & Co-gen Plant	ETP Sludge	0.5	0.8	Used as manure
		Boiler Ash (Bagasse)	21	42	Brick/cement manufacturing / as manure
2	Distillery	Yeast Sludge	--	20	Used as manure
		CPU Sludge	--	2	

## F) Odour Pollution

There are number of odour sources in existing as well as proposed units, which include molasses handling and storage, fermentation and distillation, secondary effluent treatment, and storage of effluents, stale cane, bad mill sanitation, bacterial growth in interconnecting pipes & unattended drains. Measures adopted under existing unit for controlling same are proper housekeeping, sludge management in biological ETP units, steaming of major pipe lines, regular use of bleaching powder in the drains, efficient handling, prompt & proper disposal of press mud. Under proposed project of distillery, spentwash shall be carried through closed pipeline for spentwash storage and handling activity shall be entirely eliminated.

## G) Compliance with the Norms

All the relevant acts, rules and guidelines with respect to effluent treatment and disposal, solid & hazardous wastes handling and disposal as well as in respect of emission handling and disposal, wherever applicable, as specified by the CPCB/ MPCB or any other concerned authority are strictly followed in the existing set up. Same practice shall be continued after implementation of proposed projects.

## H. Environmental Management Cell:

GMSL is already having an Environmental Management Cell (EMC) functioning under its existing sugar & co-gen unit. Members of the EMC are well qualified and experienced in their concerned fields. This cell shall be further augmented suitably after establishment of distillery unit. EMC members are as under-

**Table 16 Environmental Management Cell**

No.	Designation	No. of Working Person(s)
1	Director	1
2	Environmental Officer	1
3	Safety Officer	1
4	Chief Chemist	1
5	Environmental Chemist	1
6	Lab Chemist	3
7	ETP & CPU Operators & Supporting Staff	4

Capital as well as O & M cost towards environmental aspects under existing, expansion & proposed project in GMSL complex is as follows –

**Table 17 Capital as well as O & M Cost (Existing & Proposed)**

No.	Description	Cost Component (In Lakhs)	
		Capital	Annual O & M
<b>A</b>	<b>Existing Project</b>		
1	Air Pollution Control (APC) equipment – ESP for Boiler – 1 No. with 85 M stack	350.0	50.0
2	Water Pollution Control- ETP	200.0	30.0
3	Noise Pollution Control	25.0	5.0
4	Solid & Hazardous Waste Management	20.0	2.0
5	Environmental Monitoring & Management	30.0	5.0
6	Occupational Health & Safety	25.0	5.0
7	Green Belt Development	20.0	3.0
	<b>Total</b> <b>(2% of Existing Investment of Rs. 301.11 Cr.)</b>	<b>670.0</b>	<b>100.0</b>
<b>B</b>	<b>Expansion &amp; Proposed Project</b>		
1	APC - Stack of 60 M along with ESP, OCMS	400.0	50.0
2	Installation of MEE, ATFD, CPU & STP	500.0	60.0
3	Noise Pollution Control	35.0	10.0
4	Solid & Hazardous Waste Management	30.0	5.0
5	Occupational Health & Safety	35.0	5.0
6	Environmental Monitoring & Management	40.0	10.0
7	Green Belt Augmentation & Rain water harvesting	235.0	50.0
	<b>Total</b> <b>(6% of Expansion Investment of Rs. 226.46 Cr.)</b>	<b>1275.0</b>	<b>190.0</b>

**I) Rainwater Harvesting Aspect**

- Total area of Plot – 4,44,100 Sq. M.
- Total Open Space – 2,04,178 Sq. M.
- Average annual rainfall in the area= 600 mm

➤ Rooftop Harvesting

- Roof Top harvesting area of – 29, 492 M<sup>2</sup>
- Roof Top harvesting yield – 14,156.1 M<sup>3</sup>

➤ Surface Harvesting

- Surface Harvesting of – 3,79,456 Sq. M.
- Surface Harvesting yields is – 71,750 M<sup>3</sup>

Hence, the total water becoming available after rooftop and land harvesting will be 14,156.1 + 71,750 = **85,906 M<sup>3</sup> i.e. 85 ML**

## J) The Green Belt

**Table 18 Area Details**

No.	List of area	Area (Sq. M.)		
		Existing	Expansion	Total
1	<b>Total Plot Area</b>			<b>4,44,100</b>
2	<b>Built-up Area</b>			
	i. Sugar Factory	15,627	16,580	32,207
	ii. Cogen Plant	7,880	2,377	10,257
	iii. Distillery Unit	--	4,600	4,600
	iv. Area under Road	28,725	--	28,725
	v. Residential Colony	9,180	8,400	17,580
	<b>Total Built-up Area</b>	<b>61,412</b>	<b>31,957</b>	<b>93,369</b>
3	Green Belt Area (33% of total plot area)	15,000	1,31,553	1,46,553
4	Total Open Area	3,67,688	--	<b>2,04,178</b>

### The criteria for proposed green belt development plan

Emission of SPM, SO<sub>2</sub> is the main criteria for consideration of green belt development. Plantation under green belt is provided to abate effects of the above emissions. Moreover, there will also be control on noise from the industry to surrounding localities as considerable attenuation will occur due to the barrier of trees provided in the green belt.

### K) Socio-Economic Development

The socio-economic study was carried out in twelve villages within 10 Km radius of the study area was carried out with the help of an interview schedule. 31 questions in Marathi, which was drafted prior to and employed during the survey. Refer Socio-economic profile in Chapter 3 of EIA report for detailed information of socio-economic aspect. The observations and conclusions after the socio-economic study are as follows-

- Water shortage in nearly all villages, especially villages near factory site and away from river Bhima, was prominently observed during field visit. Hence, Massive water conservation measure by involving government, locals as well as NGOs need to be undertaken by the industry
- Most villages lacked drainage system, sewage treatment and solid waste management. Grampanchayat should make provision for infrastructure like roads, toilets in public places.
- People have to purchase water (a can of 20 litres) for drinking purpose daily from local supplier. Lack of rainfall and increasing human pressure on groundwater may be the reasons for water scarcity in the region.
- It was interesting to observe that the facility of drinking water through RO treatment was available in villages of Karnataka state.

### 7) ENVIRONMENTAL MONITORING PROGRAM

Reconnaissance of the study area was undertaken in the month of February 2019. Field monitoring for measuring meteorological conditions, ambient air quality, water quality, soil quality and noise levels was initiated in March 2019. The report incorporates the data monitored during the period from March 2019 to May 2019 and secondary data collected from various sources which include Government Departments related to ground water, soil, agriculture, forest etc.



Figure 11 Existing Green Belt





## A. Land Use

Land use study requires data regarding topography, zoning, settlement, industry, forest, roads and traffic etc. The collection of this data was done from various secondary sources viz., Census books, Revenue records, State and Central Government Offices, Survey of India toposheets as well as high resolution satellite image and through primary field surveys.

## B. Land Use/ Land Cover Categories of Study Area

**Table 19 Land Use/ Land Cover**

No.	Land Use Land Cover	Area (Ha)	Percentage (%)
1	Built Up Area	450.00	1.43
2	Crop Land	16370.00	52.11
3	Fallow Land	13475.00	42.89
4	Water Bodies	20.00	0.06
5	River	380.00	1.21
6	Barren Land	720.00	2.29
	<b>Total</b>	<b>31415.00</b>	<b>100.00</b>

## C. Meteorology

The methodology adopted for monitoring surface observations is as per the standard norms laid down by Bureau of Indian Standards (BIS) and the Indian Meteorology Department (IMD). On-site monitoring was undertaken for various meteorological variables in order to generate the data, which is then compared with the meteorological data generated by IMD from the nearest station at Solapur. The meteorological parameters were monitored during the period March 2019 to May 2019. The details of parameters monitored, equipments used and the frequency of monitoring have been given in Chapter 3 of the EIA report.

## D. Air Quality

The ambient air quality with respect to study zone of 10 Km radius around the GMSL site forms the baseline information. The study area represents some urban environment although there is dominance of rural habitation. The major air pollutants released into atmosphere from the different sources are PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and to small extent CO. However, these again vary with type and nature of the sources.

This section describes selection of sampling locations, includes the methodology of sampling and analytical techniques with frequency of sampling. Presentation of results for the March 2019 – April 2019 – May 2019 survey is followed by observations.

**Table 20 Ambient Air Quality Monitoring (AAQM) Locations**

AAQM Station Code	Name of the Station	Station Location	Distance from the Site (Km)	Direction w.r.t. the Site
A1	Industrial Site	-	--	--
A2	Tadval	Nearest Habitation	1.3	WSW
A3	Kegaon Kh.	Up-Wind	5.0	NW
A4	Mundhewadi		4.6	W
A5	Mhaisalge	Downwind	5.7	SSE
A6	Karajgi		6.6	SW
A7	Devikavathe	Crosswind	7.0	SE
A8	Mangrul		2.75	WSW

**Table 21 Summary of the AAQM Levels for Monitoring Season  
[March – April – May 2019]**

		Location							
		A1	A2	A3	A4	A5	A6	A7	A8
		Site	Tadval	Mhaisalge	Karajgi	Kegaon Kh.	Mundewadi	Devikavathe	Mangrul
PM <sub>10</sub> µg/M <sup>3</sup>	Max	65.90	55.10	55.90	55.70	55.90	55.80	55.90	55.40
	Min	45.30	46.80	46.40	43.40	45.80	47.40	46.80	47.20
	Avg	57.43	52.51	51.93	52.27	50.73	51.14	51.42	50.88
	98% Percentile	64.15	55.01	55.76	55.65	55.85	55.75	55.62	55.35
PM <sub>2.5</sub> µg/M <sup>3</sup>	Max	20.50	16.90	17.40	17.60	18.10	16.80	17.70	17.30
	Min	14.50	11.20	10.40	10.80	11.40	11.40	11.30	10.20
	Avg	18.03	13.40	13.33	13.98	14.02	14.05	14.91	13.63
	98% Percentile	20.50	16.85	16.80	17.51	18.01	16.75	17.56	16.93
SO <sub>2</sub> µg/M <sup>3</sup>	Max	24.00	13.80	13.70	17.60	13.90	13.60	18.40	15.60
	Min	18.90	10.00	9.10	10.20	8.30	8.40	8.90	9.40
	Avg	21.77	11.77	11.38	12.22	10.50	11.05	12.02	12.28
	98% Percentile	23.95	13.66	13.65	16.45	13.90	13.28	16.88	15.37
NO <sub>x</sub> µg/M <sup>3</sup>	Max	28.70	28.60	18.90	20.90	19.90	22.80	20.70	19.60
	Min	24.60	14.70	15.70	14.40	15.40	15.80	16.40	15.40
	Avg	27.12	17.90	17.36	17.73	18.03	18.22	18.28	17.85
	98% Percentile	28.56	24.28	18.85	20.81	19.90	21.83	20.19	19.51
CO mg/M <sup>3</sup>	Max	0.90	0.080	0.090	0.090	0.090	0.080	0.090	0.090
	Min	0.10	0.030	0.020	0.020	0.010	0.020	0.020	0.010
	Avg	0.53	0.050	0.050	0.050	0.050	0.060	0.050	0.050
	98% Percentile	0.90	0.080	0.090	0.090	0.090	0.080	0.090	0.090

**Note:** PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> are computed based on 24 hourly values. CO is computed based on 8 hourly values.

**Table 22 National Ambient Air Quality Standards (NAAQS) by CPCB  
(Notification No. S.O.B-29016/20/90/PCI-L by MOEFCC; New Delhi dated 18.11.2009)**

Zone Station	PM <sub>10</sub> µg/M <sup>3</sup>		PM <sub>2.5</sub> µg/M <sup>3</sup>		SO <sub>2</sub> µg/M <sup>3</sup>		NO <sub>x</sub> µg/M <sup>3</sup>		CO mg/M <sup>3</sup>	
	24 Hr	A.A.	24 Hr	A.A.	24 Hr	A.A.	24 Hr	A.A.	8 Hr	1 Hr
<b>Industrial, Rural &amp; Residential Area</b>	100	60	60	40	80	50	80	40	4	4
<b>Eco-sensitive Area Notified by Govt.</b>	100	60	60	40	80	20	80	30	4	4

### E. Water Quality

Sampling and analysis of ground water and surface water for physical, chemical and heavy metals were undertaken through the laboratory of M/s. Green Envirosafe Engineers & Consultant Private Limited, Pune.

As per standard ToRs 3 locations for surface water and 8 locations for ground water were selected. The locations are mentioned below-

**Table 23 Monitoring Locations for Surface Water**

Station Code	Name of the Station	Distance from the Site (Km)	Direction w.r.t. the Site
SW1	Guddewadi	8.53	SE
SW2	Padnur	9.97	SSW
SW3	Mhaisalage	5.70	SSE

**Table 24 Monitoring Locations for Ground Water**

Station Code	Name of the Station	Geographical Location	Distance (M)	Direction
GW1	Open well	17°24'16.59"N 75°59'21.41"E	0.34	SW
GW2	Open well	17°24'18.92"N 75°59'09.90"E	0.61	WSW
GW3	Bore well	17°23'59.96"N 75°58'56.31"E	1.24	SW
GW4	Open well	17°24'01.78" N 75°59'27.80"E	0.67	S
GW5	Open well	17°24'31.14"N 75°59'52.91"E	0.72	ENE
GW6	Open well	17°24'35.14"N 75°59'27.07"E	0.36	NNE
GW7	Open well	17°24'44.39"N 75°59'31.52"E	0.64	N
GW8	Open well	17°24'41.44"N 75°59'22.90"E	0.59	NNW

The results observed after monitoring ground water locations and surface water locations are mentioned in Chapter 3 of the EIA report.

### F. Noise Level Survey

The study area of 10 Km radius with reference to the proposed project site has been covered for noise environment. The four zones viz. Residential, Commercial, Industrial and Silence Zones have been considered for noise monitoring. Some of the major arterial roads were covered to assess the noise due to traffic. Noise monitoring was undertaken for 24 hours at each location. The details of noise monitoring stations are given in following table.

**Table 25 Noise Sampling Locations**

Station	Station Location	Direction	Distance (Km)
N1	Project Site	-	-
N2	Tadwal	WSW	1.3
N3	Khanapur	SSW	5.0
N4	Kalkarjal	WSW	7.5
N5	Mangrul	WSW	2.7
N6	Karajgi	SW	6.6
N7	Kegaon	NW	5.0
N8	Sujervalge	NW	6.6

**Table 26 Ambient Noise Levels**

No.	Location	Average Noise Level in dB(A)					
		L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>	L <sub>eq(day)</sub>	L <sub>eq(night)</sub>	L <sub>dn</sub>
1	N1	51.9	58.7	62.8	68.5	54.2	67.3
2	N2	41.6	46.1	49.9	53.1	41.7	52.6
3	N3	40.9	45.7	47.6	53.1	40.7	52.3
4	N4	42.3	46.4	49.9	52.7	42.8	52.8
5	N5	42.9	46.2	48.4	52.0	41.7	51.9
6	N6	41.4	47.6	48.8	55.6	42.2	54.6
7	N7	39.4	45.9	47.9	54.6	40.8	53.6
8	N8	41.2	47.0	48.6	54.5	42.0	53.8

### G. Socio-Economic Profile

Socio-economic status of the population is an indicator for the development of the region. Any developmental project of any magnitude will have a bearing on the living conditions and on the economic base of population in particular and the region as a whole. Chapter 3 may be referred for details of this aspect.

## H. Ecology

Field survey was carried out according to random sampling method for flora, and opportunistic sighting method, and standard point count method for fauna were followed. In general visual observation and estimation method was used for qualitative study of the biota. Birds and fish were studied being good indicators of local environmental change. Flora, mainly major tree species, was focused on identification and species abundance.

## 9) ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

### A. Impact on Topography

No major topographical changes are envisaged in the area except some levelling and landscaping. In acquired area, the changes will be due to the manmade structures, like distillery structure and ancillary units. The industrial activity will invite positive benefits in the form of land levelling and tree plantation in the plant vicinity and other premises

### B. Impact on Climate

Impact on the climate conditions due to the proposed activity is not envisaged, as emissions to the atmosphere, of flue gases with very high temperatures are not expected

### C. Impact on Air Quality

A study area of 10 km radius is considered for determination of impacts.

#### i. Baseline Ambient Air Concentrations

The 24 hourly 98 percentile concentrations of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> in Ambient Air, recorded during the field study conducted for the season March 2018 –May 2018 are considered as baseline values. They represent impact due to operations of existing nearby industries on this region. Average concentrations of above mentioned parameters, at this location, are considered to be the ‘Baseline Concentrations’ to determine the impact of proposed industrial operation on ambient air quality. The existing baseline concentrations are summarized in following table-

**Table 27 Baseline Concentrations (98 Percentile)**

Parameter	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO
98 percentile	64.15µg/m <sup>3</sup>	20.5µg/m <sup>3</sup>	23.95µg/m <sup>3</sup>	28.56µg/m <sup>3</sup>	0.9mg/m <sup>3</sup>
NAAQS	100 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	4 mg/m <sup>3</sup>

#### ii. Air Polluting Sources

As discussed above Under existing activity of sugar and co-gen factory operations, 1 boiler of 100 TPH capacity and 3 nos. of 600 KVA DG sets are installed on site. Further, under expansion activity; a boiler of 100 TPH with stack of 85 M height will be installed. ESP shall be provided as APC equipment for the same.

## D. IMPACT ON WATER RESOURCES

### i. Impact on Surface Water Resources & Quality

Total water requirement for existing & proposed activities will be 4042 M<sup>3</sup>/D. Fresh water taken from Ground water. More details about water budget are presented at Chapter 2 under Section 2.7.1

Total effluent generated from sugar factory and co-gen plant activities after expansion @ 604 M<sup>3</sup>/Day shall be forwarded to the existing ETP in the GMSL premises.

From proposed molasses distillery unit, raw spentwash about 880 M<sup>3</sup>/D will be generated. Here, raw spentwash will be concentrated in Multi Effect Evaporator (MEE). Concentrated spentwash @ 192 M<sup>3</sup>/D will be dried for powder formation (ATFD). Other effluents viz. spent lees @ 154 M<sup>3</sup>/D, condensate @ 812 M<sup>3</sup>/D (688 MEE+124 ATFD), cooling blow down @ 10 M<sup>3</sup>/D and lab-wash @ 6 M<sup>3</sup>/D will be treated in proposed CPU. Treated water from CPU will be reused for industrial operations, thereby achieving Zero Liquid Discharge (ZLD) for process effluent.

Domestic effluent generated will be 33 M<sup>3</sup>/D, treated in proposed STP.

No process effluent will be discharged in nearby river or nalla. Hence, there will not be any impact on surface water quality.

## **ii. Impact on Ground Water Resources & Quality**

Requirement for fresh water will be met from ground water. NOC is procured from CGWA for extraction of ground water. As far as water consumption is concerned Maximum use of condensate and ETP treated water is done. For details w.r.t water consumption refer Chapter 2, from EIA report. Spentwash generated from proposed distillery will be stored in HDPE lined storage tanks thereby avoiding contamination of ground water due to seepage. Hence there will not be any significant impacts on ground water quality due to proposed project

## **E. Impact On Soil**

Impact on the soil characteristics is usually attributed to air emissions, wastewater discharges and solid waste disposal. Under existing sugar factory & co-gen plant, as mentioned above, there will not be discharge of any untreated effluent on land. ESP is installed to existing boiler. Solid waste generated will be in the form of boiler ash and ETP sludge. Boiler ash is sold to farmers/brick manufacturers whereas ETP sludge is used for plantation as manure. The same disposal method will be followed after sugar factory expansion. Domestic effluent will be treated in proposed STP. Hence, there will not be any major increase in chemical constituents of soil through deposition of air pollutants/ discharge of waste water. Moreover, there will not be any process emissions worth mentioning, the impact on the soil characteristics will be nil.

## **F. IMPACT ON NOISE LEVELS**

Probable sources of noise are mill, compressors, boiler, distillation assembly, turbine & D.G. Sets etc. Workers could get annoyance and can lose concentration during operation. Workers working near the source need risk criteria for hearing damage while people residing near industry lead annoyance and psychological damage. It is obvious that the acceptable noise level for the latter case is less than the former case. Noise can affect health of workers, can cause loss of hearing and can disturb during working which may lead to accidents.

## **G. IMPACT ON LAND USE**

Present use of the project land is for industrial wherein the sugar factory, distillery unit and cogeneration plant have already been established. Expansion project will be implemented in existing premises, an area was kept vacant for expansion of sugar factory & distillery unit. Hence, no change in the land use pattern is expected. Therefore, impact on land use is insignificant.

## **H. IMPACT ON FLORA AND FAUNA**

Discharge of the untreated wastewater from the industry in surrounding area can also cause significant environmental impact on the aquatic habitats and affect dependent biodiversity. In case of air pollution, the industry is going to contribute in SPM pollution load in the nearby area. This may have negative impact particularly on avifauna, surrounding crop yields and local



population. The details in respect of impacts on ecology and biodiversity are described in Chapter 3.

## I. IMPACT ON HISTORICAL PLACES

No historical place is within the study area and the impact is nil.

## 9) ADDITIONAL STUDIES & INFORMATION

### Risks Assessment –

Risk to human health is inherent. It is safe only when the installation is dismantled at the end of its useful life. The following principles should be used as guidelines for the selection of risk criteria -

1. The increase in risk, caused by the presence of the plant to local community (i.e. neighboring public) should be negligible in comparison to the risk they already have in their daily life.
2. The work force on the plant should be expected to accept a potentially greater risk than the members of the local community since the work force have been trained to protect themselves from the possible hazards and thus reducing the actual risk to themselves.

The risk criteria considered by Green A.G. (1982) are given as below:

1. Risk to Plant: This risk is to be given priority only when it is proved beyond doubt that the risk to life is so low that reducing this risk may not be justified. Under this consideration, the risk to economic damage may be considered.
2. Risk to Public and Employees: The scale used for risk to employee and public is Fatal Accident Rate (F.A.R.) or more commonly Fatal Accident Frequency Rate. (F.A.F.R.). The F.A.R. and F.A.F.R. is defined as number of deaths from industrial injury expected in a group of 1000 men during their working period.

For more details w.r.t. this aspect, Chapter 7 may be referred.

## 10) SALIENT FEATURES OF EMP

Following routine monitoring programme as detailed in Table 28 shall be implemented at site. Besides to this monitoring, the compliances to all Environmental Clearance (EC) conditions and regular permissions from CPCB /MoEFCC shall be monitored and reported periodically.

**Table 28 Plan for Monitoring of Environmental Attributes within Industrial Premises**

No.	Description	Location	Parameters	Frequency	Conducted by
1	Ambient Air Quality	Upwind-1, Downwind-2 (Near Cane Yard, Near Main ETP, Near Colony.)	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO	Monthly	MoEFCC and NABL Approved External Lab
		Study area - (Villages namely – Tadwal, Mangrul, Kegaon, BK. Mundhewadi and Mhaisalage)		Quarterly	
2	Stack Emissions	Boiler – 2 Nos., D.G Sets – 3 Nos.	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Monthly	
3	Noise	Workzone 5 Locations - (Near Main Gate, Near Fermentation Section Distillation section, Boiler, DG set, Turbine)	Spot Noise Level recording; Leq(n), Leq(d), Leq(dn)	Monthly	
		Ambient Noise location - 8		Monthly	
4	Drinking water	Canteen	Parameters as per drinking water Std IS:10500	Monthly	

No.	Description	Location	Parameters	Frequency	Conducted by
5	Soil	4 locations within 5 Km (Villages - Mangrul, Tadwal, Kegaon, BK. and Mhaisalage)	pH, Salinity, Organic Carbon, N, P, K	Quarterly	
6	Water Quality (Ground Water & Surface Water)	Locations in study area - Ground Water and Surface Water	Parameters as per CPCB guideline for water quality monitoring – MINARS/27/2007-08	Quarterly	
7	Effluent	Treated, Untreated	pH, SS, TDS, COD, BOD, Cl, Sulphates, Oil & Grease.	Monthly	
8	Waste management	Implement waste management plan that Identifies and characterizes every waste associated with proposed and expansion activities and which identifies the procedures for collection, handling & disposal of each waste arising.	Records of Solid Waste Generation, Treatment and Disposal shall be maintained	Twice in a year	By GMSL
9	Emergency Preparedness such as fire fighting	Fire protection and safety measures to take care of fire and explosion hazards, to be assessed and steps taken for their prevention.	On site Emergency Plan, Evacuation Plan, fire fighting mock drills	Twice a year	By GMSL
10	Health Check up	Employees and migrant labour health check ups	All relevant health check-up parameters as per factories act.	Once in a Year	By GMSL
11	Green Belt	Within Industry premises as well as nearby villages	Survival rate of planted sapling	In consultation with DFO.	By GMSL
12	CER	As per activities	--	Six Monthly	By GMSL

**गोकुळ माऊली शुगरर्स लिमिटेड**  
(गो.मा.शु.लि.)

मु.पो. ताडवळ, ता. अक्कलकोट, जि. भोलापूर, महाराष्ट्र राज्य  
यांच्या

अध्याच्या आख्खर कारखान्याची गाळप क्षमता ४५०० टन प्रतिदिन पाभून ७५०० टन प्रतिदिन पर्यंत तसेच सहवीज निर्मिती प्रकल्पाचे १४.८५ मे.पॅट पाभून ३० मे.पॅट पर्यंत विस्तारीकरण आणि ११० के.एल.पी.डी. मोलॅसिस/ केन ज्युस आधारित आभयनी प्रकल्पाची विद्यमान जागेमध्ये स्थापना या प्रकल्पांसाठीच्या अहवालाचा आरांश

**१) प्रकल्पाविषयी थोडक्यात**

गोकुळ माऊली शुगरर्स लिमिटेड (गो.मा.शु.लि.), हा प्रकल्प मु.पो. ताडवळ, ता. अक्कलकोट, जि. भोलापूर. महाराष्ट्र राज्य येथे गट क्र. ६९, ७०, ७१, ७२, ७३, ७६/१/२, ४८८, ४९३, ४९४ मध्ये स्थित आहे. प्रस्तावित विस्तारीकरणांतर्गत आख्खर कारखान्याची अध्याची ऊस गाळप क्षमता ४५०० टन.प्रतिदिन पाभून ७५०० टन.प्रतिदिन पर्यंत (३००० टन.प्रतिदिन ची वाढीव क्षमता) तर, सहवीज निर्मिती प्रकल्पाची क्षमता १४.८५ मे.पॅट पाभून ३० मे.पॅट पर्यंत (१५.१५ मे.पॅट ची वाढीव क्षमता), तसेच ११० के.एल.पी.डी. मोलॅसिस/केन ज्युस आधारित प्रस्तावित आभयनी प्रकल्पाची स्थापना प्रकल्पाच्या आवासात उभारण्यात येणार आहे.

वने, पर्यावरण व हवामान अदल मंत्रालय, नवी दिल्ली यांच्या दि.१४.०९.२००६ रोजीच्या इन्व्हायर्मेंटल इंपॅक्ट असेसमेंट (EIA) नोटीफिकेशन नं.S.O.1533 (E) व त्यानंतरील अदल [दि.१३.०६.२०१९ रोजीच्या नोटीफिकेशन नं.S.O.1960(E)] यानुसार आख्खर कारखाना व सहवीज प्रकल्प ५ (j), 1(d) व श्रेणी 'ख' मध्ये येतो व आभयनी प्रकल्प (g) (i) व श्रेणी 'अ' मध्ये येतो. परंतु अदरील प्रकल्प एकाच आवासात प्रस्थापित करण्यात येणार असलेने या एकत्रित प्रकल्प स्थापनेचा प्रस्ताव वने, पर्यावरण व हवामान अदल मंत्रालय, नवी दिल्ली यांच्याकडे फॉर्म १ ऑप्लिकेशन जमा केला आहे व स्टॅंडर्ड ToR's मंजूर झाले आहेत (०५.०६.२०२१). हा प्रस्तावित प्रकल्प राखिताना सुरक्षिततेचे नियम व पर्यावरणाचे संरक्षण करण्याच्या अर्थ गोष्टीची खबरदारी घेतली जाईल.

खालील तक्त्यामध्ये गुंतवणुकीचे तपशील दिलेले आहेत.

**तक्ता १ गुंतवणुक**

क्र	विभाग	भांडवली गुंतवणुक (रु. करोडमध्ये)		
		अध्याची	प्रस्तावित	एकुण
१	आख्खर कारखाना व सहवीज प्रकल्प	३०१.११	१४६.४६	४४७.५७
२	आभयनी प्रकल्प	--	८०.०	८०.०
	<b>एकुण</b>	<b>३०१.११</b>	<b>२२६.४६</b>	<b>५२७.५७</b>

तक्ता २ कामकाजाचा कार्यकाळ

क्र	विभाग	ऑपरेशनचे दिवस (नं.)		
		हंगाम	खंड हंगाम	एकूण
१	भाखर कारखाना	१८०	--	१८०
२	बहरीज प्रकल्प	१८०	१४०	३२०
३	आशयनी प्रकल्प	१८०	१५०	३३०

२) प्रकल्पाची जागा

गो.मा.शु.लि. द्वारे मु. पो. ताडवळ, ता. अक्कलकोट, जि. भोलापूर महाराष्ट्र राज्य येथे ४४.४१ हे. एवढ्या विद्यमान जागेमध्ये विस्तारले आहे. विद्यमान जागेमध्येच भाखर कारखाना व बहरीज प्रकल्पाचे विस्तारीकरण तसेच आशयनी प्रकल्पाची स्थापना प्रस्तावित आहे.

प्रस्तावित एकात्मिक प्रकल्पातील भाखर कारखाना, धीजनिर्मिती प्रकल्प आणि आशयनी प्रकल्पासाठी उद्योगाने मिळवलेली एकूण जमीन सुमारे ४४.४१ हेक्टर आहे. यापैकी भाखर कारखाना, बहरीज प्रकल्प, आशयनी प्रकल्प यांचे एकूण आंधकाम क्षेत्र ९.३३ हे. इतके आहे. प्रस्तावित विस्तारीकरण प्रकल्पासाठी आवश्यक असणारे ना हरकत प्रमाणपत्र ग्रामपंचायत ताडवळ यांच्याकडून प्राप्त झालेले आहे व ते ई.आय.ए रिपोर्टमध्ये जोडले आहे. जागेअंदार्भातील माहिती खालीलप्रमाणे आहे. जागेचा ले-आऊट प्लॅन जोडला आहे. जागेअंदार्भातील माहिती खालीलप्रमाणे आहे.

तक्ता ३ विविध विभागांच्या क्षेत्राचा तपशील(वर्ग.मी)

क्र.	तपशील	क्षेत्र (वर्ग.मी)		
		अध्याची	प्रस्तावित	एकूण
१	एकूण क्षेत्र			४,४४,१००
२	आंधकाम क्षेत्र			
	i. भाखर कारखाना	१५,६२७.०	१६,५८०.०	३२,२०७.०
	ii. बहरीज प्रकल्प	७,८८०.०	२,३७७.०	१०,२५७.०
	iii. आशयनी प्रकल्प	--	४,६००.०	४,६००.०
	iv. रस्ता क्षेत्र	२८,७२५.०	--	२८,७२५.०
	v. कॉलनी क्षेत्र	९,१८०.०	८,४००.०	१७,५८०.०
	एकूण	६१,४१२.०	३१,९५७.०	९३,३६९.०
३	हरित पट्टा	१५,०००.०	१,३१,५५३.०	१,४६,५५३.०
४	एकूण खुले क्षेत्र	३,६७,६८८.०	--	२,०४,१७८.०

३) प्रकल्प प्रवर्तकांची ओळख

गो.मा.शु.लि. च्या प्रवर्तकांना भाखर कारखाना - बहरीज प्रकल्प तसेच आशयनी प्रकल्प क्षेत्रामधील चांगला अनुभव आहे. प्रकल्प प्रवर्तकांनी संपूर्ण प्रकल्प नियोजन तसेच अंमलबजावणी योजनेचा सखोल अभ्यास केला आहे. प्रकल्प प्रवर्तकांचे नाव आणि हुद्दा खालीलप्रमाणे -

तक्ता ४ प्रवर्तकांचे नाव व हुद्दा

अनु. क्र.	प्रवर्तकांचे नाव	हुद्दा
१.	श्री.ए. व्यंकटराव. पी. पाटील	अध्यक्ष
२.	श्री. चंद्रकला. व्ही. पाटील	दिग्दर्शक
३.	श्री. धिरज. जी. शिंदे	व्यवस्थापकीय अंचालक
४.	श्री. आशिष. व्ही. पाटील	दिग्दर्शक

४) उत्पादनांविषयी माहिती

गो.मा.शु.लि. यांच्या अर्ध्याच्या प्रकल्पामधून आणि प्रस्तावित प्रकल्पामधून तयार होणाऱ्या उत्पादने व त्यांचे परिमाण खालीलप्रमाणे आहे.

तक्ता ५ भाखर कारखाना, अहलीज आणि आशपनी प्रकल्पांची उत्पादने

प्रकल्प	उत्पादने व उपउत्पादनांची नावे	क्षमता		
		अर्ध्याची गाळप क्षमता (४५०० टि.बी.डी)	प्रस्तावित गाळप क्षमता (३००० टि.बी.डी)	एकूण गाळप क्षमता (७५०० टि.बी.डी)
भाखर कारखाना	भाखर (११%)*	४९५ मे.टन/दिन	३३० मे.टन/दिन	८२५ मे.टन/दिन
	उपउत्पादने			
	खर्क (३०%)*	१३५० मे.टन/दिन	९०० मे.टन/दिन	२२५० मे.टन/दिन
	प्रेसमड (४%)*	१८० मे.टन/दिन	१२० मे.टन/दिन	३०० मे.टन/दिन
	मोलॅक्सिन (४%)*	१८० मे.टन/दिन	१२० मे.टन/दिन	३०० मे.टन/दिन
अहलीज	पीज	१४.८५ मे. टॉन / तास	१५.१५ मे. टॉन / तास	३० मे. टॉन / तास
आशपनी	रेक्ट्रीफाइड रिपरिट (आर.एअ.)/एक्स्ट्रा न्युट्रल अल्कोहोल (इ.एन.ए.)	--	११० कि.ली./दिन	११० कि.ली./दिन
	उपउत्पादने			
	फ्युजल ऑईल	--	७ मे.टन/दिन	७ मे.टन/दिन
	कार्बन डायऑक्साईड	--	११ मे.टन/दिन	११ मे.टन/दिन

टिप : \* उक्त गाळपाच्या टक्केप्राप्तीत

भाखर कारखाना, अहलीज प्रकल्प तसेच आशपनी अंदाजित उत्पादन प्रक्रिया आणि प्रवाहतक्ता (फ्लो चार्ट) ई.आय. ए. रिपोर्ट मध्ये प्रकरण -२ येथे जोडलेला आहे.

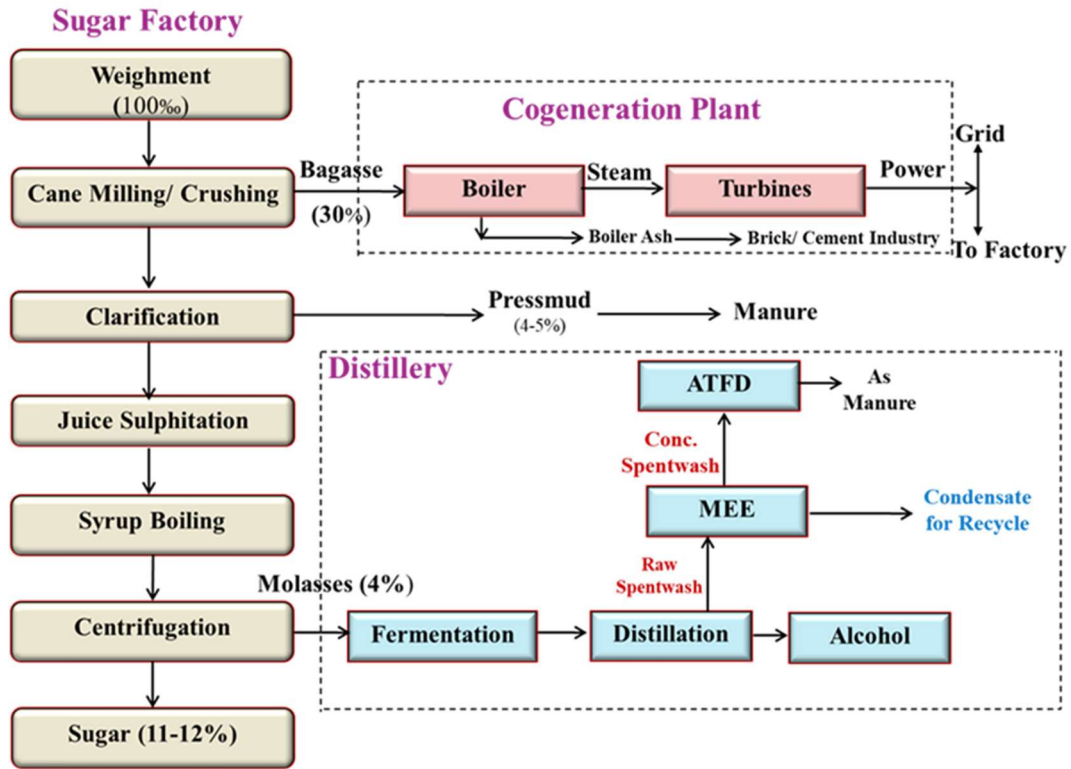
६) प्रकल्पाचे उद्दिष्ट

- भाखर उद्योग हा देशातील दुसरा सर्वात मोठा शेती आधारित उद्योग आहे.
- भाखर उद्योग हा रोजगार निर्मिती, उत्पन्न निर्मिती आणि कार्यक्षेत्रामध्ये पायाभूत घटक तयार करण्यासाठी महत्वपूर्ण आहे.
- अल्कोहोलयुक्त पेयांच्या उत्पादनांसाठी ऊर्जा, मोलॅक्सिन, कडधान्ये व इतर कृषी उत्पादने आशपनी उद्योग आपरतो. जगभर आपरल्या जाणा-या फरमेंटेड व डिस्टीलड पेयांचे उत्पादन अर्थानिक उत्पादित व उत्तम वातावरणीय परिस्थितीत वाढलेल्या कच्च्या मालांवर आधारित आहे. इथिल अल्कोहोल हे फरमेंटींग मोलॅक्सिन पासून तयार केले जाते. मोलॅक्सिन हे भाखर कारखान्यामधून मिळते.

- अल्कोहोल उद्योगाची देशाच्या अर्थव्यवस्थेमध्ये महत्वाची जागा आहे. अल्कोहोल हे खूप रसायनांमध्ये कच्चा माल म्हणून वापरले जाते. त्याखरोखरच या व्यवसायामुळे सरकारला मोठ्या प्रमाणात अर्थकारी कर वसूल होतो.
- पेट्रोलखरोखर अल्कोहोलचे ब्लेंडींग केलेले पॉवर अल्कोहोल याखरूपात अल्कोहोल मध्ये इंधन म्हणून क्षमता आहे.
- तसेच जपान, यु.एस.ए., कॅनडा, श्रीलंका, इ. देशांमध्ये पेट्रोलियम कुड पाभूनच्या नॅप्थापाभूनचे सिंथेटिक अल्कोहोल खिऱ्हेजीससाठी उपयुक्त नसलेले या देशांमध्ये फरमेंटेड अल्कोहोलला खूप मोठ्या प्रमाणामध्ये मागणी आहे.

#### ५) उत्पादन प्रक्रिया

आकृती १ उत्पादन प्रक्रिया



#### ६) पर्यावरणविषयक दृष्टिकोन

गो.मा.शु.लि. यांनी अत्यंत प्रभावी व परिणामकारक अशी पर्यावरण व्यवस्थापन योजना (EMP) बांधविणेचे नियोजन केले आहे. त्यातील विविध घटक खालीलप्रमाणे आहेत.

- पाण्याचा वापर, झांडपाण्याची निर्मिती व त्याची प्रक्रिया

#### अ) पाण्याचा वापर

गो.मा.शु.लि. यांच्या सध्याच्या व प्रस्तावित प्रकल्पामध्ये होणा-या पाण्याच्या वापराविषयी सविस्तर तपशील खालीलप्रमाणे -



तक्ता ६ झाखर कारखाना व सहजीव प्रकल्पांसाठी पाण्याचा वापर

क्र.	तपशील	पाण्याचा वापर (घन मी./दिन)	
		झाखर कारखाना	
		अध्याचा प्रकल्प (४८०० मे.टन/दिन)	एकूण पिस्तारीकरणानंतर (७५०० मे.टन/दिन)
१.	घरगुती	२०(५#+१५ <sup>१</sup> )	४०(१०#+३० <sup>१</sup> )
२.	औद्योगिक		
a.	प्रोबेस	१३४७*	२२००*
b.	कुलिंग व ऑयलर मेकअप	२२५*	४५०*
c.	डी.एम.ऑकवॉश	४५#	९०#
d.	लॅथ व वॉशिंग	५*	८*
e.	ऑश क्वेंचिंग	२*	३*
	<b>औद्योगिकवापर (a+b+c+d+e+f)</b>	<b>१६२४ (१५७९*+४५#)</b>	<b>२७५१ (२६६१*+९०#)</b>
३.	आग + हरितपट्टा	९०*	७५०*
	<b>एकूण(१+२+३)</b>	<b>१७३४ (१६६९*+१५<sup>१</sup>+५०#)</b>	<b>३५४१ (३४११*+३०<sup>१</sup>+१००#)</b>
	ताज्या पाण्याचा वापर (प्रमाण १०० लि./मे.टन ऊसगाळप)	१३ लि./मे.टन	१२ लि./मे.टन

टीप: #ओअरपेलमधुन, \*ऊसामधील कंडेनसेट, <sup>१</sup> एअ.टी.पी. व ई.टी.पी. मधील प्रकियीत केलेले पाणी

तक्ता ७ मोलॅबिअस आसपनी प्रकल्पासाठी पाण्याचा वापर

क्र.	तपशील	पाण्याची गरज (घनमीटर/दिन)	
		ऊस गळित हंगाम दरम्यान	पिना ऊस गळित हंगाम
१.	घरगुती	३#	३#
२.	औद्योगिक		
	I. प्रोबेस	८७३*	८७३*
	II. कुलिंग	१००*	१००#
	III. लॅथ व वॉशिंग	६*	६#
	<b>एकूण औद्योगिक वापर</b>	<b>९७९ (१०६*+८७३*)</b>	<b>९७९ (१०६#+८७३*)</b>
	<b>एकूण</b>	<b>९८२ (३#+१०६*+८७३*)</b>	<b>९८२ (१०९#+८७३*)</b>
	पुनर्वापर (%)	१००	९९
	ताज्या पाण्याचा वापर (प्रमाण १० कि. लि./ कि. लि. अल्कोहोल)	० कि. लि.	१ कि. लि.

टीप: #ओअरपेलमधुन, \*ऊसामधील कंडेनसेट, \* बी.पी.यु मधील प्रकियीत केलेले पाणी

तक्ता ८ केन ज्युअर आक्षयणी प्रकल्पासाठी पाण्याचा वापर

क्र.	तपशील	पाण्याची गरज (घनमीटर/दिन)
१.	घरगुती	३ <sup>#</sup>
२.	औद्योगिक	
	I. कुलिंग	१००*
	II. लॅण्ड व वॉशिंग	६*
	एकूण औद्योगिक वापर	१०६*
	एकूण	१०९ (३ <sup>#</sup> +१०६*)
	ताज्या पाण्याचा वापर (प्रमाण १० कि. लि./ कि. लि. अल्कोहोल)	० कि. लि.

टीप: <sup>#</sup>ओअरपेलमधुन, \*ऊभामधील कंडेनसेट

ख. झांडपाणी प्रक्रिया

१. घरगुती झांडपाणी

गो.मा.शु.लि. प्रकल्पामधील झाखर कारखाना आणि अहलीज प्रकल्पामधुन १५ घन मीटर प्रति दिन झांडपाणी तयार होईल जे अेप्टीक टँक नंतर अोकपीट मध्ये प्रक्रियीत केले जाईल. अिस्तारीकरणानंतर प्रकल्पामधुन एकुण ३३ घन मीटर प्रति दिन (झाखर कारखाना व अहलीज प्रकल्पामधुन ३१ घन मीटर प्रति दिन आणि आक्षयणी प्रकल्पामधुन २ घन मीटर प्रति दिन) इतके झांडपाणी तयार होईल. हे झांडपाणी ४० घनमीटर/दिन घरगुती झांडपाणी प्रक्रिया प्रकल्पामध्ये (एअ.टी.पी.) मध्ये पाठवले जाईल. प्रक्रिया केलेले झांडपाणी अयतःच्या परिअरातील आगेसाठी व हरितपट्टा अिकाअासाठी वापरले जाईल.

२. औद्योगिक झांडपाणी

झाखर कारखाना व अहलीज प्रकल्प अिस्तारीकरणानुन ६०४ घन.मी. प्रतिदिन इतके झांडपाणी तयार होईल. हे झांडपाणी झाखर कारखान्याच्या अध्याच्या औद्योगिक झांडपाणी प्रक्रिया प्रकल्पामध्ये (ई.टी.पी.) मध्ये पाठवले जाईल. प्रक्रिया केलेले झांडपाणी अयतःच्या परिअरातील आगेसाठी व हरितपट्टा अिकाअासाठी वापरले जाईल.

प्रस्तापित मॉलॅअिअय अाधारित आक्षयणी प्रकल्पांतर्गत एकुण ८८० घन.मी.प्रतिदिन इतका वॉ अॅपॅटवॉश तयार होईल. अॅपॅटवॉश एम.ई.ई. मध्ये इव्हॅपोरेट व कॉन्अनट्रेट केला जाईल. कॉन्अनट्रेट वॉश १९२ घन.मी.प्रतिदिन ड्राय करून पावडर केला जाईल. ही पावडर अत म्हणून वापरली जाते. केन ज्युअय अाधारित आक्षयणी प्रकल्पासाठी देखील हीच प्रक्रिया वापरली जाईल. (वॉ अॅपॅटवॉश - ४४० घन.मी.प्रतिदिन व कॉन्अनट्रेट वॉश - ९६ घन.मी.प्रतिदिन)

प्रस्तापित आक्षयणी प्रकल्पांतर्गत तयार होणारे झांडपाणी हे अॅपॅटलीअ, एम.ई.ई. मधील कंडेनसेट, ऑयलर व्लो डाऊन, कुलिंग व्लो डाऊन आणि लॅण्ड, वॉशिंग / एफ.ओ.अी.लीअ, पी.आर.अी.लीअ, अी.लीअ- ९८२ घन.मी.प्रतिदिन(मॉलॅअिअय अाधारित), ४८२ घन.मी.प्रतिदिन(केन ज्युअय अाधारित) मधील झांडपाणी असेल.

भार्य भांडपाणी प्रस्तावित कंडेनसेट पॉलिशिंग युनिटमध्ये प्रक्रियेत केले जाईल. प्रक्रियेत भांडपाणी हे डायल्युशन व कुलिंग टॉवर मेकअपभाठी वापरले जाईल.

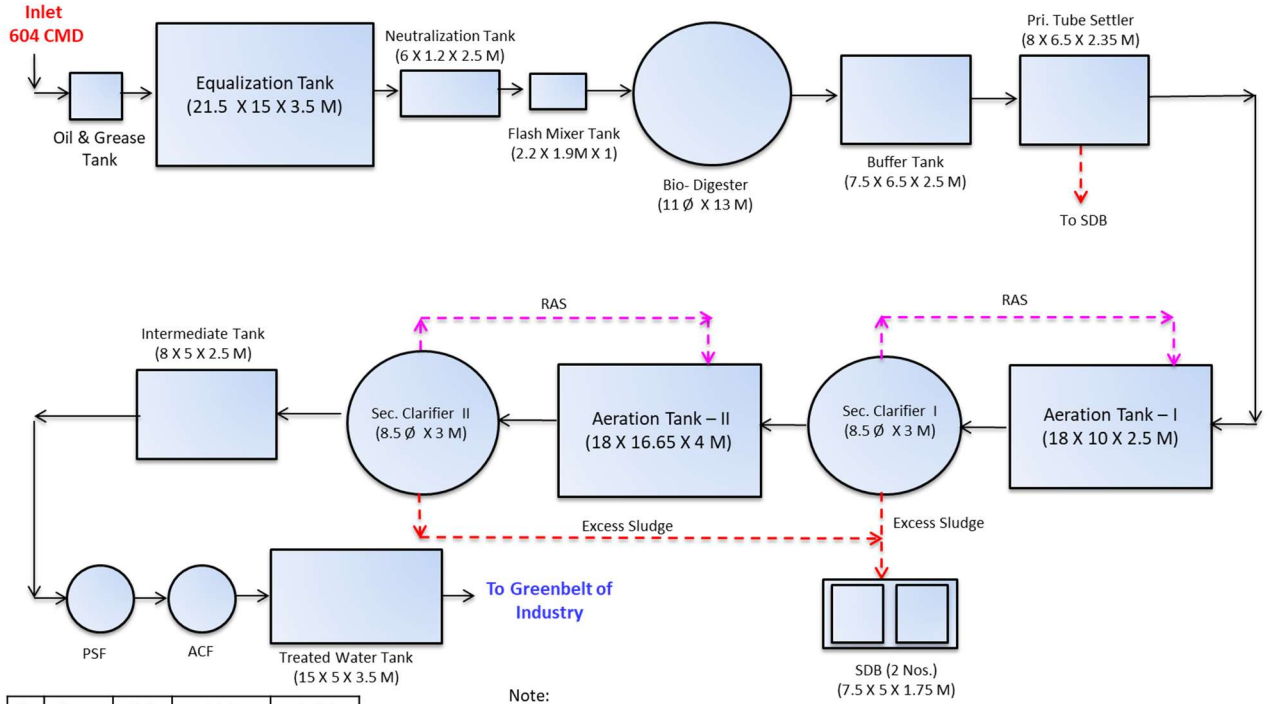
तक्ता ९ भाखर कारखाना व सहजीज प्रकल्पामधुन तयार होणारे भांडपाणी

क्र.	तपशील	भांडपाणी (घन. मी. / दिन)		प्रक्रिया
		भध्याचा प्रकल्प (४५०० मे.टन/दिन)	एकूण पिस्ताबीकरणानंतर (७५०० मे.टन/दिन)	
१.	घरगुती	१५	३१	प्रस्तावित एभ. टी. पी. मध्ये प्रक्रिया
२.	औद्योगिक			
a.	प्रोसेस	२४५	४१०	कारखान्याच्या भध्याच्या ई.टी.पी. मध्ये प्रक्रिया
b.	कुलिंग व ऑयलर	४८	९६	
c.	डी.एम.ऑकवॉश	४५	९०	
d.	लॅथ / पॉशिंग	५	८	
e.	अंश क्वेंचिंग	--	--	
	<b>औद्योगिक एकूण</b>	<b>३४३</b>	<b>६०४</b>	
	<b>भांडपाणी प्रमाण: १०० लि./मे.टन गाळप</b>	<b>७६</b>	<b>८९</b>	

तक्ता १० आभपनी प्रकल्पाचे भांडपाणी

क्र.	तपशील	भांडपाणी घन मी. प्रतिदिन		प्रक्रिया
		मोलॅक्सिभ आभपनी	केन ज्युस आभपनी	
१.	घरगुती	२	२	प्रस्तावित घरगुती भांडपाणी प्रक्रिया प्रकल्पामध्ये (एभ.टी.पी.) प्रक्रियेत केले जाईल
२.	औद्योगिक			
	प्रोसेस	बॉ अपेंटवॉश- ८८० कॉन्स. अपेंटवॉश- १९२	बॉ अपेंटवॉश- ४४० कॉन्स. अपेंटवॉश- ९६	बॉ अपेंटवॉश एम.ई.ई.मध्ये इव्हॅपोरेट व कॉन्सन्ट्रेट केला जाईल. कॉन्सन्ट्रेटेड अपेंटवॉश ड्राय करून पावडर केला जाईल केला जाईल.
		कंडेनसेट - ८१२ (६८८ MEE + १२४ ATFD)	कंडेनसेट - ३९४ (३४४ MEE + ५० ATFD)	भार्य भांडपाणी कंडेनसेट पॉलिशिंग युनिटमध्ये प्रक्रियेत केले जाईल.
		अपेंट लीस - १५४	अपेंट लीस - ७२	
	कुलिंग व्हालोजाकन	१०	१०	
	लॅथ पॉशिंग	६	६	
	डि.एम.ऑकवॉश	--	--	
	<b>एकूण</b>	कॉन्स. अपेंटवॉश - १९२ इतर भांडपाणी-९८२	कॉन्स. अपेंटवॉश - ९६ इतर भांडपाणी- ४८२	

## आकृती २ बाबखर कारखान्यातील ई.टी.पी. चा फ्लो चार्ट



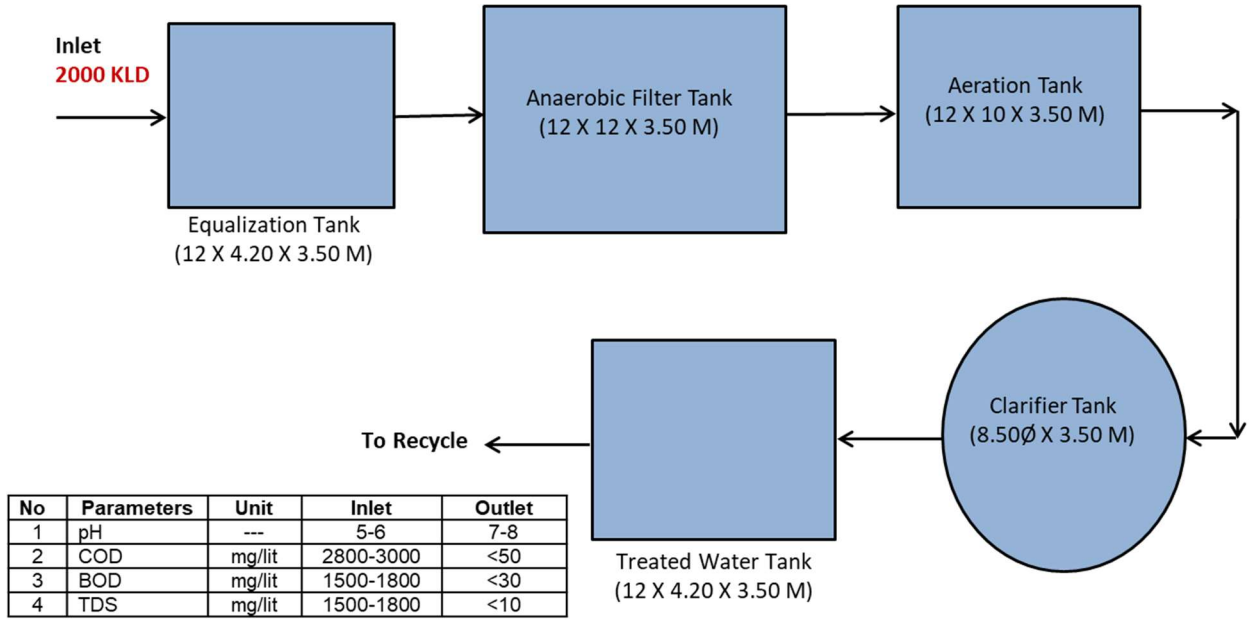
No	Param	Unit	Inlet	Outlet
1	pH	---	5-6	7-8
2	COD	mg/lit	2500-3500	170-240
3	BOD	mg/lit	1200-1800	45-80
4	TDS	mg/lit	800-1200	1600-1900

Note:  
 PSF : Pressure Sand Filter  
 ACF : Activated Carbon Filter  
 RAS : Returned Activated Sludge  
 SDB : Sludge Drying Bed

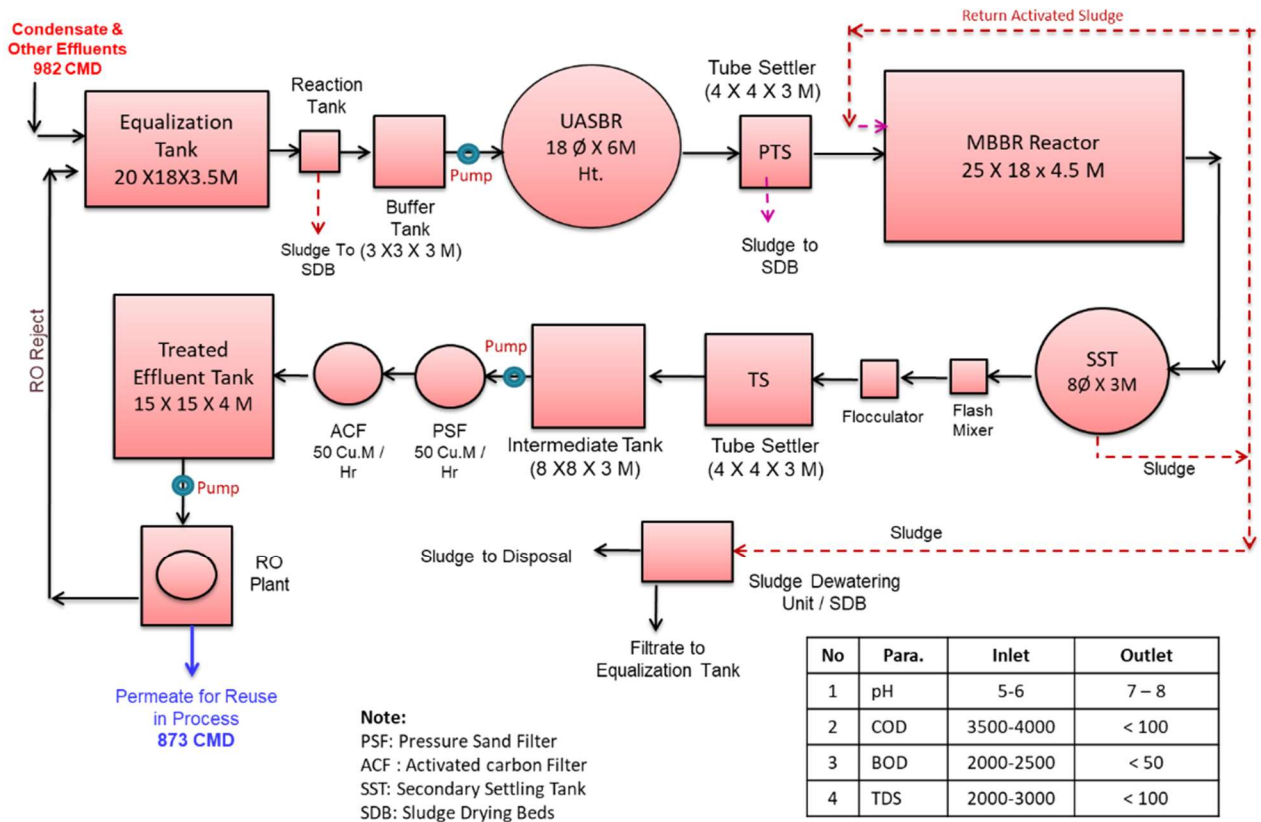
आकृती क्र. ३ भास्वर कारखान्यातील ई.टी.पी.



### आकृती ४ झाखख कारखान्यातील प्रस्तावित बी. पी. यु. चा फ्लो चार्ट



### आकृती ५ आशयनी मधील प्रस्तावित बी.पी.यु. चा फ्लो चार्ट





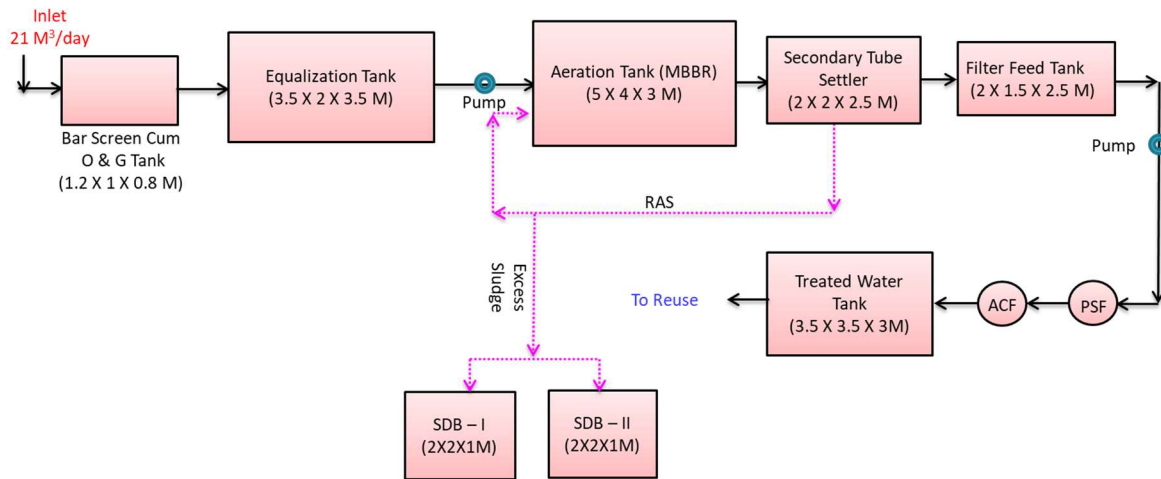
आकृती ६ भाखर कारखान्यातील बी.पी.यु.



## आकृती ७ फ्लो मीटर व ऑनलाईन मॉनिटरिंग सिस्टीम



## आकृती ८ प्रस्तावित एम्.टी.पी. चा फ्लो चार्ट



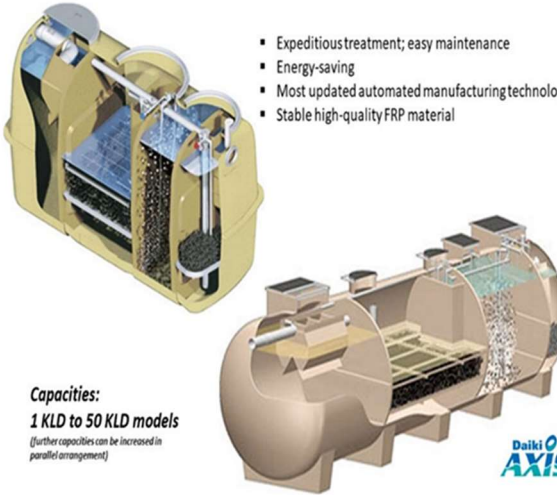
No	Parameters	Unit	Inlet	Outlet
1.	pH	---	6.5 - 7.5	7.2 - 7.5
2.	COD	mg/lit	500 - 600	< 30
3.	BOD	mg/lit	250 - 300	< 10
4.	TSS	mg/lit	250 - 400	< 5
5.	O & G	mg/lit	25 - 30	< 10

Note :  
 •PSF : Pressure Sand Filter  
 •ACF : Activated Carbon Filter  
 •RAS : Return Activated Sludge  
 •SDB : Sludge Drying Bed



## आकृती ९ एम्.टी.पी. प्रक्रिया

**Daiki Axis Johkasou Technology – Packaged STP**

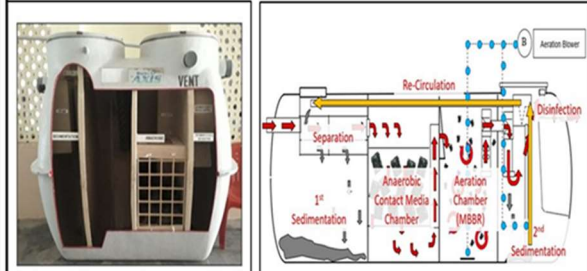


- Expeditious treatment; easy maintenance
- Energy-saving
- Most updated automated manufacturing technology
- Stable high-quality FRP material

**Capacities:**  
1 KLD to 50 KLD models  
(further capacities can be increased in parallel arrangement)

**Daiki AXIS**

**Johkasou STP Treatment Process**



Unit	MOC	Process Description	<b>Technological Frame Work</b> <ul style="list-style-type: none"> <li>• Technology approved by National Jal Jeevan Mission.</li> <li>• Technology Approved by CII (Confederation of Indian Industry)</li> <li>• No COVID-19 Trace observed in outlet water</li> </ul>
Separation & Sedimentation Chamber	FRP	Suspended Solids (SS) are separated.	
Anaerobic Chamber	FRP	Organic matters are anaerobically decomposed.	
Moving Bed Chamber	FRP	BOD content reduced by continuous aeration.	
Sedimentation Chamber	FRP	SS are settled and clear treated water is obtained.	
Disinfection Chamber	FRP	Treated Water is disinfected by Disinfection agent.	
Sludge Re-circulation Arrangement	-	Sludge from 2 <sup>nd</sup> Sedimentation Chamber is recirculated to the 1 <sup>st</sup> Sedimentation Chamber.	

### वायु उत्सर्जन

गो.मा.शु.लि मध्ये र्शध्या १०० टन प्रति तास क्षमतेचा एक ऑयलर आणि ६०० के.व्ही.ए. क्षमतेचे ३ डी.जी. ब्रेट कार्यरत आहेत. या ऑयलरला ई.एम्.पी. हे प्रदूषण नियंत्रक उपकरण अक्षयले आहे. प्रदूषण नियंत्रण करण्यासाठी १०० टन प्रति तास क्षमतेच्या ऑयलरला ८५ मी. उंचीची चिमणी अक्षयली आहे. विस्तारीकरणांतर्गत १०० टन प्रति तास क्षमतेचा नवीन ऑयलर अक्षयिला जाईल व या ऑयलरला ई.एम्.पी. हे प्रदूषण नियंत्रक उपकरण अक्षयले जाईल. डी.जी. ब्रेट चा वापर फक्त पीज पुरवठा खंडीत झाल्यानंतर केला जाईल. अक्षयणी प्रकल्पासाठी लागणारी वाफ ही र्शहपीज प्रकल्पातील प्रस्तावित १०० टन ऑयलरमधून घेतली जाईल.

हवा प्रदूषण व त्या र्शंशंधीच्या इतर आर्शीची माहीती खालील तक्त्यात दिली आहे.

### तक्ता ११ ऑयलरचा तपशील

क्र.	तपशील	र्शध्याचे		विस्तारीकरणांतर
१	जोडले आहे-	ऑयलर १	डी. जी. ब्रेट	ऑयलर २
२	क्षमता	१०० टन/तास	६०० के. व्ही. ए. - ३ र्शंख्या	१०० टन/तास
३	इंधनाचा प्रकार	अर्गॅस	HSD	अर्गॅस
४	इंधन (मे.टन/दिन)	१०५६	१८० लि. प्रतितास	१०५६
५	आंधणीसाठी वापरलेले मटेरीयल	आर.बी.बी	एम. एम्.	आर.बी.बी
६	आकार (गोल/चौरस)	गोल	गोल	गोल
७	उंची, मी (जमीनीच्या वर)	८५ मी	५ मी	८५ मी
८	चिमणीला अक्षयलेले प्रदूषण नियंत्रणाचे उपकरण	ई. एम्. पी.	आयलॅम्बर व अर्कॉस्टिक इनक्लोजर	ई. एम्. पी.

## आकृती १० अंध्याचे प्रदूषण नियंत्रक उपकरण



### ड. ध्वनी प्रदूषण

#### १. ध्वनी निर्माण करणारे स्रोत

- अंध्याच्या व प्रस्तावित प्रकल्पांमध्ये खूप जास्त आवाज निर्माण करणारे स्रोत अक्षणात नाहीत. डी.जी.सेट हा ध्वनी प्रदूषणाचा एक स्रोत ठरू शकतो पण अक्षरील डी.जी.सेट फक्त नेहमीचा पीजपुरवठा खंडित अक्षताना कार्यरत राहिल. डी. जी. सेट अक्षणा-या विभागातील ध्वनीची पातळी ७२ डी सी (ए) इतकी अपेक्षित आहे. या विभागात जरूरी ध्वनी नियंत्रण साधने जसे कि आयलॅन्सर अक्षपिण्यात येतील. तसेच
- ऑयलर, फर्मन्टेशन अक्षशन व डिस्टिलेशन अक्षशन हे इतर थोड्या प्रमाणात आवाज निर्माण करणारे स्रोत अक्षतील येथील ध्वनीची पातळी ७० ते ८० डी सी (ए) दरम्यान अपेक्षित आहे.
- पंक्ष, कॉंप्रेसर, ऑयलर हाऊस, टर्बाइन, ट्रक वाहतूक इत्यादी.
- कारखान्या अक्षोवती टप्याटप्याने विकसित केला जाणारा पुक्षेक्षा वाढीव हरित पट्टा यामुळे आवाज पातळीत घट होईल.

#### २. नियंत्रण उपाय

- ध्वनी नियंत्रणासाठी आयसोलेशन, अक्षेशन आणि इन्स्युलेशन तंत्रे वापरली जातील. इअरमफ्ल, ई. अक्षरूपात कामगारांना पी. पी. ई (PPE) पुरवण्यात येतील. तसेच ध्वनीची पातळी कमी करण्यासाठी डी. जी. सेट अक्षतंत्र कॅनॉपी मध्ये अंढीरत करण्यात येईल.

**इ. घातक स्वरूपाचा कचरा**

**तक्ता १२ घातक स्वरूपाचा कचरा तपशील**

क्र.	प्रकल्प	कच-याचा प्रकार	परिमाण (मे.टन /वर्ष)		पिल्हेटाट पद्धत
			अध्याचा	पिस्तारीकरणानंतर	
१.	आखर कारखाना, आशपनी व सहजीज	५.१ स्पेंट ऑईल	०.७	१	आधिकृत पुनर्पिकेता
		३३.३ कंटामिनेटेड कॉटन पेस्ट	०.२	०.५	आधिकृत पुनर्पिकेता
		३३.१ एम्टी कंटेनर	३०	४५	आधिकृत पुनर्पिकेता

**फ. घन स्वरूपाचा कचरा**

**तक्ता १३ घन स्वरूपाच्या कच-याचा तपशील**

क्र.	प्रकल्प	कच-याचा प्रकार	परिमाण (मे.टन /दिन)		पिल्हेटाट पद्धत
			अध्याचा	पिस्तारीकरणानंतर	
१.	आखर कारखाना व सहजीज प्रकल्प	ई.टी.पी. र्लज	०.५	०.८	खत म्हणून आपरले जाईल
		ऑयलरची बाख (अगॅस)	२१	४२	पीट निर्मितीसाठी/खत म्हणून आपर
२.	आशपनी प्रकल्प	यीस्ट र्लज	--	२०	खत म्हणून आपरले जाईल
		बी.पी.यु. र्लज	--	२	

**ख. पाशाचा उपद्रव**

अध्याच्या प्रकल्पांतर्गत पाईप लाईन्स, सांडपाणी साठवणूक, खराख मील सॅनिटेशन आणि दुर्लक्षित ड्रेन्स इ. पाशाच्या उपद्रवाचे स्रोत असतील. अध्याची पद्धत जसे की नीटनेटके हाऊस किपींग, ई.टी.पी. युनिट मधील मैला व्यवस्थापन, ड्रेन्ससाठी छिलचींग पावडरचा आपर हे पिस्तारीकरणांतर्गत पाळली जाईल.

**भ. नियम व अटीचे पालन**

अध्याच्या प्रकल्पांतर्गत महाराष्ट्र प्रदुषण नियंत्रण मंडळ (MPCB) किंवा तत्सम संस्थेमार्फत सांडपाणी प्रकिया व पिल्हेटाट, घातक स्वरूपाचा कचरा व घन कचरा हाताळणी व पिल्हेटाट तसेच आयु ऊत्सर्जने इ. संबंधित घालुन देण्यात आलेल्या सर्व कायद्यांचे व नियमांचे काटेकोरपणे पालन केले जाते. अदर कार्यपद्धती प्रस्तावित पिस्तारीकरण प्रकल्पांतर्गतही पाळली जाईल.

**म. पर्यावरण व्यवस्थापन विभाग**

गो.मा.शु.लि मध्ये पर्यावरण व्यवस्थापन विभाग कार्यरत आहे. या विभागातील सर्व अदर उच्चशिक्षित आणि संबंधित क्षेत्रातील योग्य तो अनुभव असलेले आहेत. अध्याच्या व प्रस्तावित पर्यावरण व्यवस्थापन विभागामधील अदर खालीलप्रमाणे –



तक्ता १४ पर्यावरण व्यवस्थापन विभाग

क्र.	पद	एकूण संख्या
१	अंचालक	१
२	पर्यावरणीय अधिकारी	१
३	सुरक्षा अधिकारी	१
४	मुख्य सहायक	१
५	पर्यावरणीय सहायक	१
६	प्रयोगशाळा सहायक	३
७	ई.टी.पी व बी.पी.यु. ऑपरेटर व सहायक	४

अध्याच्या व प्रस्तावित विस्तारीकरण प्रकल्पांमधील पर्यावरण घटकांसाठी व त्यांच्या देखभालीसाठी लागणा-या खर्चाचा तपशील खालील प्रमाणे:-

तक्ता १५ देखभालीसाठीच्या खर्चाचा तपशील

क्र.	तपशील	खर्च (रु. करोडमध्ये)	
		भांडवली गंतवणूक	वार्षिक देखभाल व दुसरेती
	<b>अध्याच्या प्रकल्पासाठी</b>		
१.	हवा प्रदूषण नियंत्रणासाठी ऑयलरला ई.एस.पी. साठी लागणाऱा खर्च व ८५मी. उंचीची चिमणी	३५०.०	५०.०
२.	भांडवली प्रकिया सुविधा अध्याच्या साखर कारखाना व सहायक प्रकल्पासाठी.	२००.०	३०.०
३.	ध्वनी प्रदूषण नियंत्रणासाठी लागणाऱा खर्च	२५.०	५.०
४.	घनकचरा व्यवस्थापनासाठी	२०.०	२.०
५.	एन्व्हायरोमेंटल मॉनिटरींग व मॅनेजमेंट	३०.०	५.०
६.	व्यवसायविषयक आरोग्य व सुरक्षीतता.	२५.०	५.०
७.	हवित पट्टा ठिकाणासाठी	२०.०	३.०
	<b>एकूण</b>	<b>६७०.०</b>	<b>१००.०</b>
	<b>विस्तारीकरण व प्रस्तावित प्रकल्पासाठी</b>		
१.	हवा प्रदूषण नियंत्रणासाठी १ ऑयलरला ई.एस.पी. साठी लागणाऱा खर्च व ८५मी. उंचीची चिमणी, OCMS	४००.०	५०.०
२.	भांडवली प्रकिया सुविधा - MEE, ATFD, CPU, STP इ.	५००.०	६०.०
३.	ध्वनी प्रदूषण नियंत्रणासाठी लागणाऱा खर्च	३५.०	१०.०
४.	घनकचरा व्यवस्थापनासाठी	३०.०	५.०
५.	व्यवसायविषयक आरोग्य व सुरक्षीतता.	३५.०	५.०
६.	एन्व्हायरोमेंटल मॉनिटरींग व मॅनेजमेंट	४०.०	१०.०
७.	हवित पट्टा ठिकाणासाठी व रेन वॉटर हार्व्हिंगसाठी लागणाऱा खर्च	२३५.०	५०.०
	<b>एकूण</b>	<b>१२७५.०</b>	<b>१९०.०</b>

य) रेनवॉटर हार्व्हिंग संकल्पना

- प्रकल्पाचे एकूण क्षेत्र - ४,४४,१०० वर्ग मी.
- एकूण विकामे क्षेत्र - २,०४,१७८ वर्ग मी.
- सहायक वार्षिक पाऊस - ६०० मिमी.

➤ कफटॉप हार्वेस्टिंग

- कफटॉप हार्वेस्टिंग क्षेत्र - २९,४९२ वर्ग मी.
- कफटॉप हार्वेस्टिंग मधून मिळणाऱे पाणी - १४,१५६.१ घन मी.

➤ झरफेस हार्वेस्टिंग

- झरफेस हार्वेस्टिंग क्षेत्र - ३,७९,४५६ वर्ग मी.
- झरफेस हार्वेस्टिंग मधून मिळणाऱे पाणी - ७१,७५० घन मी.

कफटॉप हार्वेस्टिंग आणि झरफेस हार्वेस्टिंग मधून उपलब्ध होणारे पाणी -

$$१४,१५६.१ + ७१,७५० = ८५,९०६ \text{ घन मी.}$$

म्हणजेच ८५ दशलक्ष लिटर्स (ML)

ब) हरित पट्टा माहिती

तक्ता १६ क्षेत्रफळाची माहिती

क्र.	तपशील	क्षेत्र (वर्ग.मी)		
		अध्याची	प्रस्तावित	एकूण
१	एकूण क्षेत्र			४,४४,१००
२	आंधकाम क्षेत्र			
	i. झाखर कारखाना	१५,६२७.०	१६,५८०.०	३२,२०७.०
	ii. झहरीज प्रकल्प	७,८८०.०	२,३७७.०	१०,२५७.०
	iii. आशयनी प्रकल्प	--	४,६००.०	४,६००.०
	iv. रस्ता क्षेत्र	२८,७२५.०	--	२८,७२५.०
	v. कॉलनी क्षेत्र	९,१८०.०	८,४००.०	१७,५८०.०
	एकूण	६१,४१२.०	३१,९५७.०	९३,३६९.०
३	हरित पट्टा	१५,०००.०	१,३१,५५३.०	१,४६,५५३.०
४	एकूण खुले क्षेत्र	३,६७,६८८.०	--	२,०४,१७८.०

हरित पट्टा विकसित करण्यासाठी SPM, SO<sub>2</sub> चे उत्सर्जन या आधी प्रामुख्याने विचारात घेतल्या जातील. SPM, SO<sub>2</sub> यांच्या उत्सर्जनांमुळे होणारे परिणाम कमी करण्यास उपयुक्त असा हरित पट्टा विकास कार्यक्रम राबविला जाईल. तसेच नियोजित हरित पट्ट्यातील झाडांमुळे इंडस्ट्रीमध्ये तयार होणा-या धवणीची तीव्रता कमी होऊन परिसरात होणारे धवणी प्रदूषण कमी होणेस मदत होईल. यानुसार SO<sub>2</sub> आणि धवणी प्रदूषण नियंत्रण इ. आधी लक्षात घेऊन प्रस्तावित हरित पट्टा विकास कार्यक्रमांतर्गत विविध जातीच्या झाडांची लागवड केली जाईल.

## आकृती ११ ऋध्याचा हवित पट्टा



## ल) सामाजिक व आर्थिक विकास

सामाजिक व आर्थिक विकास अंतर्गत प्रकल्पास केंद्रस्थानी मानुन १० कि. मी. परीघ क्षेत्रामधील गावांचे अर्थेक्षण केले गेले. या अंतर्गत पैयक्तिकरित्या लोकांच्या मुलाखती मराठी प्रश्नावलीद्वारे घेण्यात आल्या. अधिक माहितीसाठी EIA रिपोर्ट मधील प्रकरण - ३ सामाजिक व आर्थिक विकास मुद्दा पहा. सामाजिक व आर्थिक विकास अभ्यासामधील निरीक्षण आणि निष्कर्ष पुढील प्रमाणे

- अभ्यास क्षेत्रातील अहुतांश गावांमध्ये मुलभूत सुविधा जसे की; पिण्याचे पाणी, प्राथमिक शिक्षण सुविधा, शौचालये, वीज, चांगली वाहतुक सुविधा व समाधानकारक शैक्षणिक सुविधा उपलब्ध आहेत.
- अभ्यास क्षेत्रातील अहुतांश लोकसंख्या चांगली कमाई असलेली आहे याचे मुख्य कारण ऋष शेती आहे.
- कारखान्याद्वारे स्थानिक लोकांना प्रत्यक्ष आणि अप्रत्यक्षपणे रोजगार पुरविला जातो.
- अहुतांश गावांमध्ये जलनिःसारण सुविधेचा अभाव, खुली गटारे तसेच विखुरलेला घन कचरा व आरोग्य सुविधा यांचा अभाव आहे.
- अपुरी व दुर अंतरावर अक्षणा-या आरोग्यसुविधा ही स्थानिकांपुढील अर्थात मोठी समस्या आहे.

## ७) पर्यावरणविषयक तपासणी कार्यक्रम

अभ्यासासाठी निवडलेल्या भागाची पूर्वपाहणी फेब्रुवारी २०१९ मध्ये करण्यात आली होती. प्रस्तावित प्रकल्पाच्या अभोवतालच्या हवामान परिस्थितीच्या माहितीसाठी हवा, पाणी व माती स्वरूप इ. गोष्टींचा अभ्यास मार्च ते मे २०१९ मध्ये सुरू केला गेला होता. या प्रस्तावामध्ये मार्च २०१९ ते मे २०१९, या दरम्यानच्या कालावधीमध्ये गोळा केलेली माहिती नमूद केली आहे. या अंशंधीची द्वितीय स्तरावरील माहिती ही अरकाशी विभागांकडून घेण्यात आली आहे ज्यामध्ये भुवर्गीय पाणी, माती, शेती आणि वने इ. समावेश आहे.

## अ. जमीनीचा वापर

जमीन वापराच्या अभ्यासामध्ये भागाची रचना, कारखाने, जंगल, रस्ते आणि रहदारी इ. गोष्टींचा विचार केला जातो. अंशंधीत माहिती ही विविध द्वितीय स्तरावरून जसे की जनगणना पुरवितका, अरकाशी कार्यालये, अर्थे ऑफ इंडिया टोपोशिटस, याचअरोबर सॅटेलाईट इमेजीस व जागेवरील प्राथमिक अर्थे इ. मधुन घेण्यात आली आहे.

## ख. अभ्यासासाठी निवडलेल्या जमीनीचा वापर / व्यापलेली जमीन

### तक्ता १७ जमीनीचा वापर / व्यापलेली जमीन

क्र.	जमीनीचा वापर / व्यापलेली जमीन	क्षेत्र (हेक्टर)	टक्केवारी (%)
१.	अंधकामाखालील जमीन	४५०.००	१.४३
२.	लागवडीखालील जमीन	१६३७०.००	५२.११
३.	शेतीपड जमीन	१३४७५.००	४२.८९
४.	जलस्रोत	२०.००	०.०६
५.	नदी	३८०.००	१.२१
६.	नापीक जमीन	७२०.००	२.२९
<b>एकुण</b>		<b>३१४१५.००</b>	<b>१०० .००</b>

## क. हवामान माहिती

भादव पाहणीसाठी ब्युरो ऑफ इंडियन स्टॅण्डर्ड (BIS) आणि इंडियन मेट्रोलॉजी डिपार्टमेंट (IMD) यांनी नमूद केलेली मानके वापरली आहेत. हवामान परिवर्धतीच्या माहितीसाठी वेगवेगळ्या हवामान घटकांचा अभ्यास प्रत्यक्ष जागेवरती केला गेला आहे. या अंशधीची विद्वतीय बतवावरील अधिक माहिती ही हवामान विभाग, बोलापूर येथून घेण्यात आली आहे. त्यामध्ये तापमान, आर्द्रता, पर्जन्यमान इ. आर्षीचा समावेश आहे.

वेगवेगळ्या हवामान घटकांचा अभ्यास हा मार्च २०१९ ते मे २०१८ या दरम्यान केला गेला होता. या अभ्यासातील परिमाणे, उपकरणे व वांवावता यांचा तपशील ई. आय. ए. रिपोर्टच्या प्रकरण क. ३ मध्ये देणेत आला आहे.

## ड) हवेचा दर्ज

या विभागामधून नमुने घेतलेल्या ठिकाणांची निवड, नमुना घेण्याची पद्धत, पृथक्करणाची तंत्रे आणि नमुना घेण्याची वांवावता इ. गोष्टींची माहिती दिली आहे. मार्च २०१९ ते मे २०१९ या कालावधी मधील निरीक्षणानंतरचे निकाल भादव केले आहेत.

अभ्यास क्षेत्रातील हवेच्या गुणवत्तेचे मूल्यमापन करण्यासाठी PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO. या घटकांचे वेगवेगळ्या स्थानाकांवर मॉनिटरींग केले गेले. मॉनिटरींगची वेगवेगळी स्थानके खाली दिलेल्या तक्त्या मध्ये दाखवली आहेत.

### तक्ता १८ अभोवतालची हवा गुणवत्ता परिक्षणाची (AAQM) स्थानके

AAQM केंद्र आणि आंकेतांक	स्थानकाचे नाव	स्थानक ठिकाण	साईट पाहूनचे अंतर (कि. मी.)	साईटला अनुभवन दिशा
A1	साईट	-	-	-
A2	ताडवळ	जवळील वसतीस्थान	१.३	नैऋत्य
A3	केगाव खु.	खालुन वरच्या दिशेला वाहणारे वारे	५.०	वायव्य
A4	मुंदेवाडी	वरून खालच्या	४.६	पश्चिम
A5	म्हैभालगे	दिशेला वाहणारे वारे	५.७	आग्नेय
A6	कावजगी		६.६	नैऋत्य
A7	देवीकवठे	विरुद्ध दिशेला	७.०	आग्नेय
A8	मांगवळ	वाहणारे वारे	२.७५	नैऋत्य



**तक्ता १९ अभ्योवतालची हवा गुणवत्ता परिक्षणाची (AAQM) अथानकांचा आशांश**  
[March 2019 – April 2019 – May 2019]

		Location							
		आईट	ताडवळ	महैआळगे	कावजगी	केगाव बु.	मुंढेवाडी	देवीकवठे	मांगारुळ
PM <sub>10</sub> µg/M <sup>3</sup>	Max.	६५.९०	५५.१०	५५.९०	५५.७०	५५.९०	५५.८०	५५.९०	५५.४०
	Min.	४५.३०	४६.८०	४६.४०	४३.४०	४५.८०	४७.४०	४६.८०	४७.२०
	Avg.	५७.४३	५२.५१	५१.९३	५२.२७	५०.७३	५१.१४	५१.४२	५०.८८
	98%	६४.१५	५५.०१	५५.७६	५५.६५	५५.८५	५५.७५	५५.६२	५५.३५
PM <sub>2.5</sub> µg/M <sup>3</sup>	Max.	२०.५०	१६.९०	१७.४०	१७.६०	१८.१०	१६.८०	१७.७०	१७.३०
	Min.	१४.५०	११.२०	१०.४०	१०.८०	११.४०	११.४०	११.३०	१०.२०
	Avg.	१८.०३	१३.४०	१३.३३	१३.९८	१४.०२	१४.०५	१४.९१	१३.६३
	98%	२०.५०	१६.८५	१६.८०	१७.५१	१८.०१	१६.७५	१७.५६	१६.९३
SO <sub>2</sub> µg/M <sup>3</sup>	Max.	२४.००	१३.८०	१३.७०	१७.६०	१३.९०	१३.६०	१८.४०	१५.६०
	Min.	१८.९०	१०.००	९.१०	१०.२०	८.३०	८.४०	८.९०	९.४०
	Avg.	२१.७७	११.७७	११.३८	१२.२२	१०.५०	११.०५	१२.०२	१२.२८
	98%	२३.९५	१३.६६	१३.६५	१६.४५	१३.९०	१३.२८	१६.८८	१५.३७
NO <sub>x</sub> µg/M <sup>3</sup>	Max.	२८.७०	२८.६०	१८.९०	२०.९०	१९.९०	२२.८०	२०.७०	१९.६०
	Min.	२४.६०	१४.७०	१५.७०	१४.४०	१५.४०	१५.८०	१६.४०	१५.४०
	Avg.	२७.१२	१७.९०	१७.३६	१७.७३	१८.०३	१८.२२	१८.२८	१७.८५
	98%	२८.५६	२४.२८	१८.८५	२०.८१	१९.९०	२१.८३	२०.१९	१९.५१
CO mg/M <sup>3</sup>	Max.	०.९०	०.०८०	०.०९०	०.०९०	०.०९०	०.०८०	०.०९०	०.०९०
	Min.	०.१०	०.०३०	०.०२०	०.०२०	०.०१०	०.०२०	०.०२०	०.०२०
	Avg.	०.५३	०.०५०	०.०५०	०.०५०	०.०५०	०.०६०	०.०५०	०.०५०
	98%	०.९०	०.०८०	०.०९०	०.०९०	०.०९०	०.०८०	०.०९०	०.०९०

Note: PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> are computed based on 24 hourly values.

**तक्ता २० National Ambient Air Quality Standards (NAAQS) by CPCB**  
(Notification No. S.O.B-29016/20/90/PCI-L by MOEFCC; New Delhi dated 18.11.2009)

Zone Station	PM <sub>10</sub> µg/M <sup>3</sup>		PM <sub>2.5</sub> µg/M <sup>3</sup>		SO <sub>2</sub> µg/M <sup>3</sup>		NO <sub>x</sub> µg/M <sup>3</sup>		CO mg/M <sup>3</sup>	
	24 Hr	A.A.	24 Hr	A.A.	24 Hr	A.A.	24 Hr	A.A.	8 Hr	1 Hr
औद्योगिक आणि मिश्रित भाग	100	60	60	40	80	50	80	40	4	4
पर्यावरणदृष्ट्या संवेदनशिल भाग	100	60	60	40	80	20	80	30	4	4

Note: A.A. represents "Annual Average"

**इ) पाण्याची गुणवत्ता**

पाण्याच्या भौतिक, रासायनिक गुणधर्मांची आणि त्यातील जड धातूंची तपासणी करण्यासाठी MoEFCC, New Delhi मानांकित मे. वीन एन्वायरोन्मेंट इंजिनीअर्स ग्रॅड कन्सल्टंट्स प्रा. लि., पुणे यांच्यामार्फत नमुने घेऊन त्याचे पृथक्करण केले. भूर्गभातील पाण्याच्या नमुना चाचणीसाठी ३ ठिकाणे व भूपृष्ठीय पाण्याच्या नमुना चाचणीसाठी ८ ठिकाणे घेतली होती.

तक्ता २१ भूगर्भातील पाण्यासाठी निवडलेली ठिकाणे

स्थानक सांकेतिक	स्थानकाचे नाव	को-ऑर्डिनेट्स	साईट पाझुनचे अंतर	साईट पाझुनची दिशा
		अक्षांश रेखांश		
GW1	खुली पिहीर	१७°२४'१६.५९"N ७५°५९'२१.४१"E	०.३४	नैऋत्य
GW2	खुली पिहीर	१७°२४'१८.९२"N ७५°५९'०९.९०"E	०.६१	नैऋत्य
GW3	छोत्रा पेल	17°23'59.96"N ७५°५८'५६.३१"E	१.२४	नैऋत्य
GW4	खुली पिहीर	१७°२४'०१.७८"N ७५°५९'२७.८०"E	०.६७	दक्षिण
GW5	खुली पिहीर	१७°२४'३१.१४"N ७५°५९'५२.९१"E	०.७२	प्रायव्य
GW6	खुली पिहीर	१७°२४'३५.१४"N ७५°५९'२७.०७"E	०.३६	ईशान्य
GW7	खुली पिहीर	१७°२४'४४.३९"N ७५°५९'३१.५२"E	०.६४	उत्तर
GW8	खुली पिहीर	१७°२४'४१.४४"N ७५°५९'२२.९०"E	०.५९	ईशान्य

तक्ता २२ पृष्ठभागावरील पाण्यासाठी निवडलेली ठिकाणे

स्थानक सांकेतिक	स्थानकाचे नाव	साईट पाझुनचे अंतर	साईट पाझुनची दिशा
SW1	गुडडेवाडी	८.५३	आग्नेय
SW2	पदनुब	९.९७	नैऋत्य
SW3	म्हैसाळगे	५.७०	आग्नेय

फ) ध्वनी पातळीचे अर्थेक्षण

ध्वनी पातळीचे अर्थेक्षणसाठी कारखाना परिक्षाराक्ष केंद्र मानून त्यापासून १० कि.मी. अंतराच्या परिघामध्ये येणारा भाग हा अभ्यास क्षेत्र म्हणून विचारात घेण्यात आला होता. ध्वनी पातळीचे मॉनिटरींगसाठी रहिवासी, व्यावसायिक, औद्योगिक, शांतता विभाग असे चार विभाग विचारात घेण्यात आले होते. या अभ्यासामध्ये काही महत्त्वाच्या रस्त्यांवर वाहतुकीमुळे होणारा आवाज बुद्धा समाविष्ट केला होता. प्रत्येक ठिकाणी २४ तासासाठी ध्वनी पातळीचे मॉनिटरींग करण्यात आले. ध्वनी पातळीचे मॉनिटरींगची वेगवेगळी स्थानके खाली दिलेल्या तक्त्या मध्ये दाखवली आहेत.

तक्ता २३ ध्वनी नमुना ठिकाणे

स्थानक सांकेतिक	स्थानकाचे नाव	साईट पाझुनचे अंतर	साईट पाझुनची दिशा
N1	साईट	-	-
N2	ताडवळ	१.३	नैऋत्य
N3	खानापुत्र	५.०	दक्षिण
N4	कालकर्जाल	७.५	नैऋत्य
N5	मांगरुळ	२.७	नैऋत्य
N6	कारजगी	६.६	दक्षिण
N7	केगाव	५.०	प्रायव्य
N8	भुजेरपालगे	६.६	प्रायव्य

## तक्ता २४ ध्वनी पातळी

ठिकाणे	अवाभरी ध्वनी पातळी (डेन्सिबल)					
	L10	L50	L90	Leq(day)	Leq(night)	Ldn
N1	५१.९	५८.७	६२.८	६८.५	५४.२	६७.३
N2	४१.६	४६.१	४९.९	५३.१	४१.७	५२.६
N3	४०.९	४५.७	४७.६	५३.१	४०.७	५२.३
N4	४२.३	४६.४	४९.९	५२.७	४२.८	५२.८
N5	४२.९	४६.२	४८.४	५२.०	४१.७	५१.९
N6	४१.४	४७.६	४८.८	५५.६	४२.२	५४.६
N7	३९.४	४५.९	४७.९	५४.६	४०.८	५३.६
N8	४१.२	४७.०	४८.६	५४.५	४२.०	५३.८
N9	५१.९	५८.७	६२.८	६८.५	५४.२	६७.३

### ग) सामाजिक - आर्थिक रचना

सामाजिक व आर्थिक स्तरावरून त्याभागातील प्रगती दर्शनास येते. कोणत्याही प्रकारच्या विकास प्रकल्पामुळे कार्यक्षेत्रात राहणा-या लोकांच्या राहणीमानावर, सामाजिक व आर्थिक स्तरावर प्रभाव पडतो. याखेरीजची अपेक्षित माहिती ई.आय.ए. रिपोर्ट मधील प्रकरण ३ मध्ये आहे.

### ब) पर्यावरण

यादृष्टीक नमुना पद्धतीने जनसंपर्कासाठी आणि अंधीयुक्त ठिकाण पाहणी पद्धती व मानक ठिकाण ठिणती पद्धतीप्रमाणे प्राण्यांसाठी कार्यक्षेत्र अर्थेक्षण करण्यात आले. आयोटाच्या गुणात्मक अभ्यासासाठी दोषळ निरीक्षण पाहणी आणि अंदाज पद्धतीचा अवलंब करण्यात आला. स्थानिक पर्यावरण बदलाचे मासे व पक्षी हे चांगले निदर्शक आहेत. जनसंपती मुख्यतः मोठ्या पर्गातील झाडांची ओळख व त्यांचे प्रमाण यांच्याकडे अभ्यास केंद्रित होता.

### निष्कर्ष

अर्थात वाईट परिस्थिती जसे की अप्रक्रियित रॉपेंटॉशचा भीमा नदीत विस्फाच्या अनुषंगाने परिणामांचा विचार करण्यात आला. ड्रेनेज नकाशाच्या अभ्यासाने असे लक्षात येते की वाईट जवळ बहुतांश प्रवाह उगम पावतात जे ताडवळ आणि खानापूर व शेवटी वाईटपासून ६ कि.मी. अंतरावरील भीमा नदीत मिशळतात. कार्यक्षेत्र अर्थेक्षणादरम्यान असे आढळून आले की शेतीक्षेत्र वाढ, अतिक्रमण आणि रस्तेबांधणी यामुळे प्रवाह विकळीत झाले आहेत. या सगळ्यांमुळे बांधपाणी भीमा नदीत मिशळण्याची शक्यता ही दुसऱ्या शक्यता आहे. यामुळे पर्यावरणावर कोणताही परिणाम होणार नाही.

### ८) इतर अभ्यास

#### आपत्ती व्यवस्थापन

आपत्ती व्यवस्थापन करताना, खालील बाबींचा विचार केला जातो.

१. प्रकल्पाच्या शेजारी राहणा-या लोकांना प्रकल्पामुळे कमीत कमी धोका असावा.

२. प्रकल्पामध्ये काम करणा-या कामगारांना शोजारी राहणा-या लोकांपेक्षा जास्त धोका अपेक्षित आहे, यामुळे प्रकल्पामध्ये काम करणा-या कामगारांना संभाव्य धोक्यापासून रक्षणाचे ट्रेनिंग दिले गेले पाहिजे जेणे करून संभाव्य धोके कमी होतील.

वीन ए. जी. (१९८२) यांनी आपत्ती व्यवस्थापन करताना विचारात घेतलेल्या शाषी -

१. प्रकल्पास धोका : जेव्हा जिपीतास कमीतकमी धोका असतो व तो धोका पुढे कमी करणे शक्य होत नाही यावेळी ह्या धोक्यास प्राथमिकता दिली गेली पाहिजे. या अंतर्गत संभावित वित्तीय नुकसानीच्या धोक्याचा विचार केला जातो.
२. कामगार व जनतेस धोका : फेटल ऑक्सीडेंट रेट (एफ. ऐ. आर) किंवा फेटल ऑक्सीडेंट फ्रिक्वेंन्सी रेट (एफ. ऐ. एफ. आर) याचा वापर कामगार व जनतेस धोके यांचा अभ्यास करताना वापर केला जातो. एफ. ऐ. आर व एफ. ऐ. एफ. आर म्हणजेच औद्योगिक अपघातांमध्ये १००० लोकांमध्ये होणा-या अपेक्षित मृतांची संख्या होय.

यासंबंधीची अधिक माहिती ई.आय. ए. रिपोर्ट मधील प्रकरण ७ येथे जोडली आहे.

## ९) पर्यावरणावर होणारे परिणाम आणि त्यासाठीच्या उपाययोजना

### अ. भौगोलिक रचनेवर परिणाम

सदर प्रकल्पांतर्गत सध्याच्या प्रकल्पामध्ये विस्तारीकरण होणार असलेने संपादित जागेच्या भौगोलिक रचनेवर परिणाम अपेक्षित नाही. सदर औद्योगिक प्रकल्पामुळे काही सकारात्मक फायदे जसे की जमिन विकसिकरण, व झाडे लावणे अपेक्षित आहे.

### ब. वातावरणावरील परिणाम

प्रस्तावित प्रकल्पामुळे हवामानावर परिणाम अपेक्षित नाही कारण जास्त तापमान असणा-या वायुंचे उत्सर्जन अपेक्षित नाही.

### क. हवेच्या दर्जावरील परिणाम

प्रकल्पामुळे होणा-या परिणामांची छाननी करण्यासाठी कारखाना परिसरास केंद्र मानून त्यापासून १० कि.मी. अंतराच्या परिघामध्ये येणारा भाग विचारात घेतला गेला आहे.

### १. मुलभूत ऑम्बिएंट वायू प्रमाणके

मार्च २०१९ ते मे २०१९ मध्ये करण्यात आलेल्या कार्यक्षेत्र सर्वेक्षणादरम्यान नोंद करण्यात आलेली २४ तासामधील ९८ पर्सेंटाईल प्रमाणके आणि PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> व NO<sub>x</sub> यांची सभोवतालच्या हवेमधील सारासरी यानुसार मिळालेल्या प्रमाणांना मुलभूत प्रमाणके मानण्यात आली आहेत. सदर प्रमाणके परिसरामध्ये होणार परिणाम दर्शवतात. सध्याची मुलभूतप्रमाणके ई. आय. ए. रिपोर्ट मधील प्रकरण ४ तसेच पुढील तक्त्यामध्ये मांडण्यात आली आहेत.

## तक्ता २५ मुलभूत प्रमाणके

तपशील	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO
98 percentile	६४.१५ µg/m <sup>3</sup>	२०.५ µg/m <sup>3</sup>	२३.९५ µg/m <sup>3</sup>	२८.५६ µg/m <sup>3</sup>	०.९ mg/m <sup>3</sup>
NAAQS	१०० µg/m <sup>3</sup>	६० µg/m <sup>3</sup>	८० µg/m <sup>3</sup>	८० µg/m <sup>3</sup>	४ mg/m <sup>3</sup>

### २. हवा प्रदूषण स्रोत

अद्वय प्रकल्पामध्ये १०० टन प्रति तास क्षमतेचा ऑयलर तसेच ६०० के.व्ही.ए. क्षमतेचे ३ डी.जी. सेट अक्षयिण्यात आलेले आहेत. प्रस्तावित विस्तारीकरणांतर्गत १०० टन प्रति तास क्षमतेचा नवीन ऑयलर अक्षयिण्यात येणार आहे. सर्व ऑयलर्ससाठी ई.एन.पी. हे प्रदूषण नियंत्रक उपकरण अक्षणार आहे.

### ड. जलस्रोतावरील परिणाम

#### १. भूपृष्ठीय जलस्रोतावरील परिणाम

अध्याच्या व विस्तारीकरण प्रकल्पांसाठी लागणारे पाणी हे भूपृष्ठीय जलस्रोतांमधून घेण्यात येईल. प्रस्तावित प्रकल्पानंतर भास्वर कारखाना, आक्षणी प्रकल्प व अहजीज प्रकल्पामधून तयार होणारे एकूण ३३ घन मी. प्रतिदिन एवढे सांडपाणी अध्याच्या सांडपाणी प्रकिया केंद्रात प्रकियीत केले जाईल. घरगुती सांडपाण्यावर प्रस्तावित सांडपाणी प्रकिया केंद्रात प्रकिया केली जाईल. कोणत्याही प्रकारचे प्रकिया न केलेले सांडपाणी नदी अथवा नाल्यामध्ये विस्र्जित करणार नाही. अधिक माहितीई आय.ए. रिपोर्ट मधील प्रकरण क. २ मध्ये देण्यात आली आहे.

#### २. भूगर्भिय पाण्याच्या गुणवत्तेवर होणारा परिणाम

प्रकल्पांसाठी लागणारे जस्वी पाणी हे ओरपेलमधून घेण्यात येईल. प्रस्तावित विस्तारीकरण अंतर्गत भूजलाचा ढापर होणार नाही. या अधिक, कारखान्यामधून कोणत्याही प्रकारचे अप्रकियीत सांडपाणी विस्र्जित होणार नाही त्यामुळे भूजल पाणी पातळीवर व गुणवत्तेवर कोणताही परिणाम होणार नाही.

### इ. माती वर होणारे परिणाम

मातीच्या गुणधर्मावर होणारे परिणाम हे साधारणपणे ढायू उत्सर्जन, सांडपाण्याचे आण घनकचरा विनियोगांमुळे होत अक्षतात. अध्याच्या भास्वर कारखाना व अहजीज प्रकल्पातून वर उल्लेख केलेले घटक विस्र्जित होणार नाहीत. ऑयलर्सना ई.एन.पी. व सेट स्क्रबर अक्षयिले आहेत. ऑयलर्सची राख व ई.टी.पी. स्लजस्पात घनकचरा निर्माण होईल. ऑयलर्सची राख ढीट निर्मितीसाठी दिली जाईल व ई.टी.पी. स्लज वृक्षारोपनासाठी खत म्हणून ढापरली जाईल. घरगुती सांडपाण्यावर प्रस्तावित सांडपाणी प्रकिया केंद्रात प्रकिया केली जाईल. त्यामुळे ढायू प्रदूषके अथवा सांडपाण्यामुळे जमिनीच्या रासायनिक घटकांमध्ये कोणताही मोठा अदल होणार नाही.



## फ. ध्वनीमर्यादेवर होणारा परिणाम

अतिध्वनी निर्माण करणा-या यंत्रावर काम करीत अक्षणा-या कामगारांचे अंतुलन शिघ्रतून कामावर परिणाम होण्याची शक्यता असते. ध्वनी निर्माण होणाऱ्या यंत्रोत्पादक अक्षणाऱ्या लोकांची ऐकण्याची क्षमता कमी होऊ शकते. शहर प्रकल्पामध्ये मुख्यतः भास्वर कारखान्यातील मील, कॉम्प्रेसर, ऑयलर, टर्बाइन व डि.जी. सेट हे ध्वनी प्रदूषणाचे मुख्य स्रोत ठरतील. शहर प्रकल्प हा ध्वनी प्रदूषण करणारा नाही.

## ग. जमीन वापरावर होणारा परिणाम

प्रस्तावित विस्तारीकरण प्रकल्प हे शहराच्या भास्वर कारखाना, सहजीव प्रकल्प व आश्रयणी प्रकल्पांमध्ये करण्यात येणार आहेत. शहर जागेचा औद्योगिक कारणांसाठी वापर करण्यात येत आहे यामुळे जमीन वापरामध्ये खदल अपेक्षित नाही.

## घ. झाडांवर व प्राण्यांवर होणारा परिणाम

प्रकल्प न केलेले झाडापाणी कारखान्याच्या अशोषताली विकसित केल्यास पाणी संस्था व त्यावर अवलंबून असलेली जैवविविधतेवर परिणाम संभवतो. वायु प्रदूषणा अंशतः कारखाना SPM च्या स्वरूपात प्रदूषण योगदान देऊ शकतो. याचा विपरीत परिणाम अंशतः पक्षी, अशोषतालीची पीके आणि स्थानिक लोकांवर होऊ शकतो. झाडांवर व प्राण्यांवर होणारा परिणामांची माहिती ई.आय. ए. रिपोर्ट मधील प्रकरण ३ मध्ये देण्यात आलेली आहे.

## ड. ऐतिहासिक ठिकाणावर होणारा परिणाम

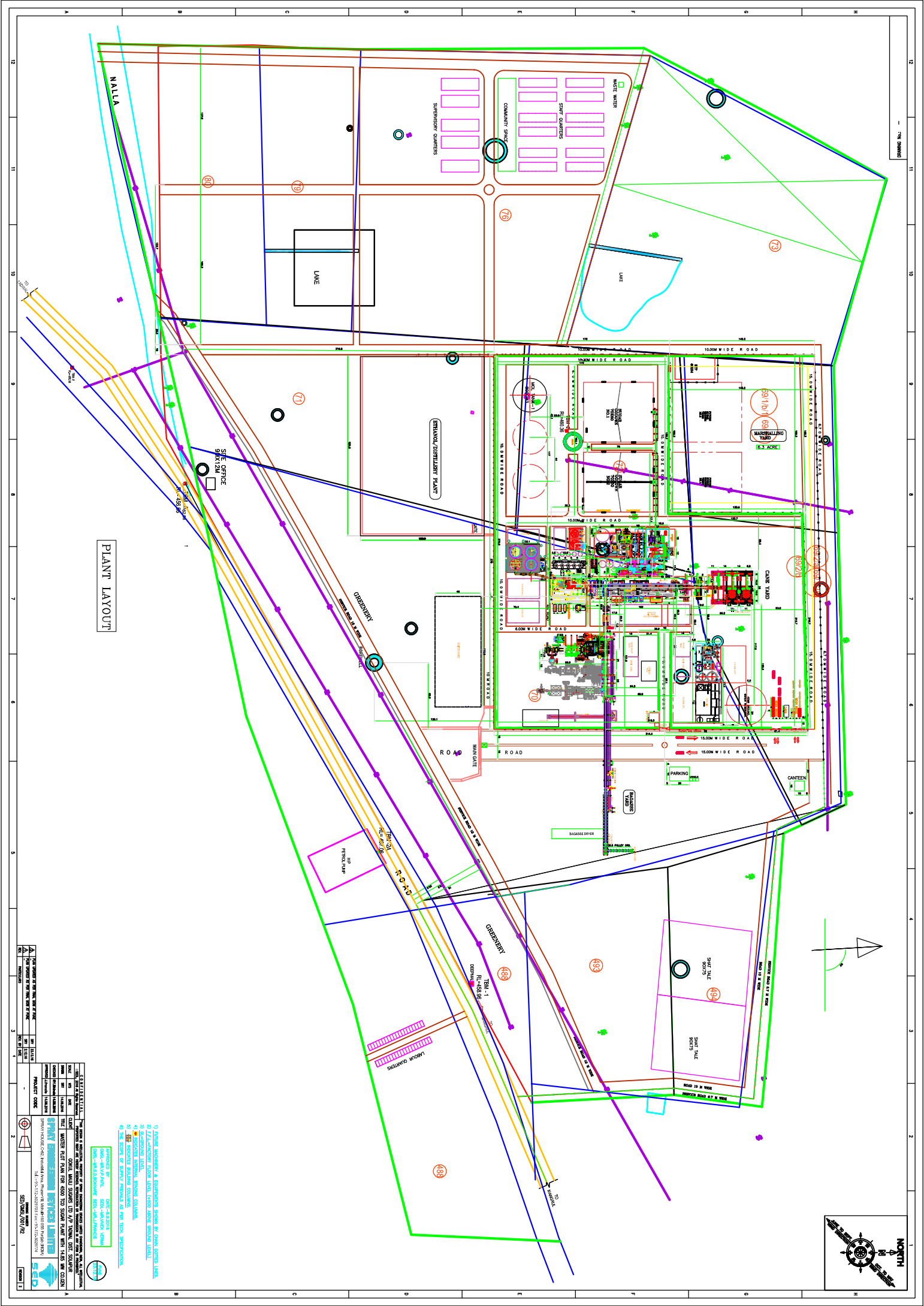
प्रकल्पाच्या १० कि.मी क्षेत्रात कोणतेही ऐतिहासिक ठिकाण येत नसलेने ऐतिहासिक ठिकाणावर कोणताही परिणाम अपेक्षित नाही.

## १०) पर्यावरणीय व्यवस्थापन आराखड्याची ठळक वैशिष्ट्ये

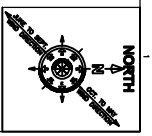
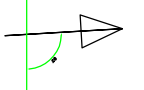
पर्यावरणीय व्यवस्थापन आराखड्याची ठळक वैशिष्ट्ये खालील तक्त्यामध्ये दिलेली आहेत -

तक्ता २६ पर्यावरणीय व्यवस्थापन आराखडा

क्र.	तपशील	ठिकाण	परिमाणे	वारंवारता	तपासणी
१.	हवेची गुणवत्ता	अपविंड - १, डाऊनविंड - २ (अगॅस यार्डजवळ, कंपोस्ट यार्डजवळ, मेन गेट जवळ, केन यार्ड) अभ्यास क्षेत्र ( ताडवळ, मांगरूळ, केगाव खु., मुंढेपाडी आणि म्हैसाळगे)	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO	मासिक	MoEFCC approved Laboratory मधुन
२.	चिमणीतुन होणाऱे उत्सर्जन	ऑयलरच्या २ चिमण्या, ३ डी.जी. बेट	1. SPM 2. SO <sub>2</sub> 3. NO <sub>x</sub>	मासिक	
३.	ध्वनि गुणवत्ता	मेनगेट जवळ, किण्वन विभाग, साखर गोदाम, ऑयलर, डी. जी. बेट, टर्न इन विभाग	Spot Noise Level recording; Leq(n), Leq(d), Leq(dn)	मासिक	
४.	पिण्याचे पाणी	कारखान्याचे उपहारगृह / वसाहत	Parameters as drinking water standards IS10500	मासिक	
५.	जमीन	८ ठिकाणे	PH, Salinity, Organic Carbon, N.P.K.	मासिक	
६.	पाण्याची गुणवत्ता	अभ्यास क्षेत्रामधील ठिकाणे - भुवर्गीय पाणी आणि पृष्ठभागावरील पाणी	Parameters as per CPCB guideline for water quality monitoring – MINARS/27/2007-08	द्वैमासिक	
७.	सांडपाणी	प्रक्रिया न केलेले, प्रक्रिया केलेले	pH, SS, TDS, COD, BOD, Chlorides, Sulphates, Oil & Grease.	मासिक	
८.	कचरा व्यवस्थापन	प्रस्थापित कृतीतून तयार होणा-या कच-याचे पॅशिस्टे आणि रुपानुसार व्यवस्थापन केले जाईल	कच-याचे निर्मिती, प्रक्रिया आणि विल्हेवाट यांची नोंद	वर्षातून दोनदा	गोकुळ माऊली शुगर्स लिमिटेड यांचेकडून
९.	आपातकालीन तयारी जसे की आग व्यवस्थापन	प्रतिबंधात्मक उपाय म्हणून आगीच्या व स्फोट होणाऱ्या ठिकाणी आगीपासून संरक्षण आणि सुरक्षिततेची काळजी घेतली जाईल.	ऑन भाईट ईमरजन्सी व संकटकालीन आह्वार पडण्याचा आराखडा	मासिक	
१०.	आरोठय	कारखान्याचे कामगार आणि स्थलांतरीत कामगारांसाठी आरोठय क्षीणीचाचे आयोजन	अर्ध आरोठय विषयक चाचण्या	वार्षिक	
११.	हरीत पट्टा	कारखान्याच्या परीक्षामध्ये आणि शेजारील गावांमध्ये	झाडे जगण्याचा दर	तज्ञां नुसार	
१२.	बी.ई.आर.	निर्देशाप्रमाणे		सहा महिन्यातून	



**PLANT LAYOUT**



- 1) LAYOUT, DIMENSIONS & ELEVATIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
- 2) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
- 3) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
- 4) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
- 5) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
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- 9) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.
- 10) DIMENSIONS SHOULD BE CHECKED ACCORDING TO THE DRAWING.

APPROVED BY: **SRINIVAS RAO**  
 PROJECT CODE: **SRV/06/00/02**

NO.	REVISION	DATE	BY	CHKD.	DESCRIPTION
1					
2					
3					
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10					

PROJECT CODE: **SRV/06/00/02**



# MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010437/24020781/24014701  
Fax: 24024068 /24023515  
Website: <http://mpcb.gov.in>  
E-mail: [mpcb@vsnl.net](mailto:mpcb@vsnl.net)



Kalpataru Point, 2<sup>nd</sup> - 4<sup>th</sup> Floor,  
Opp. Cine Planet Cinema,  
Near Sion Circle, Sion (E)  
Mumbai - 400 022

Red/LSI

Date: 31/01/2019

Consent No: Format -1.0/BO/CAC-CELL/UAN NO. 0000052822/R/CAC- 1901002390

To,  
M/s. Gokul Mauli Sugars Ltd,  
Gut No. 69,70,71,72,76, A/p Tawdwal,  
Tal. Akkalkot, Dist. Solapur.

Subject: Renewal of consent to operate of 4500 TCD sugar and 14.85 MW  
Co-generation unit under RED category.

Ref : 1. Earlier Consent to establish granted by Board vide No. BO/CAC-Cell/  
UAN No. 0000034123/O/CAC-171000968 dated 28.11.2017.  
2. CAC meeting minutes 04.12.2018

Your application: - 0000052822

Dated: 18.07.2018

For: Renewal of consent to operate of 4500 TCD sugar and 14.85 MW Co-generation unit under RED category under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 5 of the Hazardous & Other Wastes (M & T M) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. The consent is granted for a period from 01.08.2018 to 31.07.2021.
2. The total capital investment of the industry is Rs 212.62 Crs.  
(as per C.A. Certificate submitted by industry)
3. The Consent is valid for the manufacture of -

Sr. No.	Product / By-Product Name	Maximum Quantity in MT/M
1	Sugar	14850
2	Molasses	5400
3	Pressmud	5400
4	Bagasse	40500
	Electric Generation (Co-gene)	14.85 MW

(The cane crushing capacity of Sugar Industry shall not exceed 4500 TCD)

4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1.	Trade effluent	360 (Sugar 350 + Co-gen. 10)	As per Schedule -I	10 CMD shall be 100% recycle & remaining 350 CMD shall be used on land for irrigation
2.	Domestic effluent	10	As per Schedule -I	On land for irrigation

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr. no.	Description of stack / source	Number of Stack	Standards to be achieved
1	Boiler (150 TPH)	1	As per Schedule- II
2	DG set (625 KVA)	1	As per Schedule- II
3	DG set (625 KVA)	1	As per Schedule- II
4	DG set (625 KVA)	1	As per Schedule- II

6. **Conditions under Hazardous & Other Wastes (M & T M) Rules, 2016 for treatment and disposal of hazardous waste:**

Sr. No.	Type of Waste	Category	Quantity	UOM	Disposal
1	Used/Spent oil	5.1	5.0	Kg/day	Reuse in own boiler as fuel

7. **Non-Hazardous Solid Wastes:**

Sr. No.	Type of Waste	Quantity	UOM	Treatment	Disposal
1	Fly/Boiler Ash	500	MT/A	---	Landfill/Sale to Brick Mfg. and used for compost production
2	Sludge from waste water treatment	5.0	MT/A	---	Use as manure

8. This Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government agencies.
10. Industry shall comply the directions issued by CPCB for online monitoring system.
11. Consent is issue without prejudice to the directions issued and being issued by CPCB.
12. Crushing capacity shall be restricted to the threshold limit as prescribed in Consent to operate.
13. Industry shall operate online monitoring system which is installed as per the directions of CPCB/MPCB & shall connect and upload the data to CPCB/MPCB server.
14. Industry shall extend existing Bank Guarantee of Rs. 5 lakhs towards O & M of pollution control systems and compliance of Consent conditions.

For and on behalf of the  
Maharashtra Pollution Control Board

(E. Ravendiran, IAS)  
Member Secretary



Received Consent fee of –

Sr. No.	Amount (Rs)	Transaction/DR number	Date	Mode of payment
01	Rs. 4,25,313./-	TXN1807001830	20.07.2018	S.B.I. Bank
02	Rs. 5000/-	TXN1809001008	17.09.2018	Axis Bank
03	Rs. 8,50,626/-	TXN1901000248	03.01.2019	Online Payment

Copy to:

1. Regional Officer – MPCB, Pune
2. Sub -Regional Officer – Solapur, MPCB, -They are directed to ensure the compliance of the consent conditions.
3. Chief Accounts Officer, MPCB, Mumbai.
4. CC/CAC desk- for record & website up-dation purposes.

Signature  
Maharashtra Pollution Control Board

**Schedule-I**  
**Terms & conditions for compliance of Water Pollution Control**

- A] As per your application, you have provided Effluent Treatment Plant with capacity 500 CMD, comprising of Grit Chamber, Oil & Grease Trap, Neutralization Tank, Equalization Tank, Primary Clarifier, Aeration Tank, Secondary Clarifier & SDB's.
- B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr No.	Parameters	Standards prescribed by Board (Limiting Concentration in mg/l, except for pH)
01	pH	5.5-9.0
02	Oil & Grease	10
03	BOD 3 days at 27°C	100
04	T. D. S.	2100
05	Suspended Solid	100
06	C. O. D.	250
07	Chlorides	600
08	Sulphates	1000

- C] The treated effluent 350 CMD of Sugar unit shall be disposed on land for irrigation on 50 acres of own land/as per bilateral agreement with farmers after confirming the above standards & 10 CMD of the co-generation shall be recycled 100% in the process. In no case treated/untreated effluent shall find its way outside factory premises directly or indirectly.
- D] Industry shall provide separate primary treatment for effluent generation from DM plant.
- E] CREP conditions for sugar industry
- Operation of ETP shall be started at least one month before starting of cane crushing to achieve desired MLSS so as to meet prescribed standards from day one the operation of mill.
  - Waste water generation shall be maintained as 100 liter per ton of cane crushed.
  - Industry shall achieve zero discharge into in land surface water bodies.
  - 15 days storage capacity tank shall be provided for treated effluent to take care of no demand for irrigation.
- F] Industry shall maintain properly the arrangement provided for covering the effluent collection system and to avoid the ingress of Bagasse other material.
- G] The unit shall operate ETP even after completion of the crushing season so that any effluent generated during washing & maintenance is discharged after proper treatment.
- H] The unit shall optimize water use in industrial process & maintain records of water consumption & waste water generation.
- I] Industry shall provide flow meter at Inlet of ETP of Sugar & Co-gen unit and to maintain the record with data logging system.

1) A] As per your consent application, you have provided the septic tank & soak pit for treatment of sewage.

B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards/ prescribed under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

- |     |                                 |     |       |
|-----|---------------------------------|-----|-------|
| (1) | Suspended Solids. Not to exceed | 100 | mg/l. |
| (2) | BOD 3 days 27°C. Not to exceed  | 100 | mg/l. |

C] Treated domestic effluent 10 CMD shall be soaked in a soak pit, which shall be got cleaned periodically and shall be disposed on land of 15 acres for gardening/irrigation purpose. In no case treated/untreated effluent shall find its way outside factory premises directly or indirectly.

D] In case the treatment system is combined for trade effluent and sewage then the standards and disposal path prescribed at sr. no.1 B & C of schedule I shall be applicable.

E] Industry shall have bilateral agreement with the farmers on whose land the treated effluent is used for irrigation purpose and a copy of the agreement with validity shall be submitted to the Regional/Sub-regional Office of the Board.

F] Industry shall establish Environmental Cell by appointing Environmental engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and Irrigation field where treated effluent is used for irrigation.

## 2) Conditions for Molasses Storage

- i. The molasses shall be properly collected and stored in steel tank which shall be leak proof. At no stage of handling of molasses, there shall be leakage or spillage.
- ii. The capacity of tank for storage of molasses shall be such that it will take care of bumper production of sugar, non-lifting of molasses etc.
- iii. All the area on which molasses are stored and handled should be provided with drain for diverting the spills to the treatment plant/molasses tank. Suitable arrangements for accidental discharges of molasses from the tank shall be provided to contain the same within factory premises.
- iv. Destruction of molasses and its disposal shall not be done without specific permission in writing from the authorized officer of the Board. Intimation of intention to destroy or dispose of the molasses shall be given to the Board at least 15 days in advance by registered post under intimation to the Sub-Regional officer and Regional Officer of the Board under whose jurisdiction the factory is situated.
- v. The storage tanks shall be kept in good conditions all the year around with adequate maintenance. The tanks size and capacity per cm, height, total capacity in tones shall be displayed prominently near/on the tank.
- vi. The above conditions shall be in addition to and not in derogation of the provisions contained in the "Bombay Molasses Rules, 1955" and Maharashtra Molasses Storage and Supply Regulation 1965"

3) The applicant shall provide specific Water pollution control system as per the conditions of EP Act, 1986 and Rule made there under from time to time/Environmental Clearance/CREP guidelines if applicable.

4) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the

system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.

5) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

6) Water Consumption of the Unit: -

Sr. no.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	225
2.	Domestic purpose	15
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	240
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	—

7) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.

**Schedule-II**  
**Terms & conditions for compliance of Air Pollution Control**

1. As per your application, you have provided the Air pollution control (APC) system and also erected following stack (s) and to observe the following fuel pattern-

Sr. No.	Stack Attached to	APC System	Height in meter	Type of Fuel	Quantity	UoM	S %	SO <sub>2</sub> Kg/Day
1	Boiler (150 TPH)	ESP	85	Bagasse	772	MT/D	0.2	3088
2	DG set (625 KVA)	Acoustic enclosure	25 (each)	HSD	180	Lits/hr	1	86.4
3	DG set (625 KVA)							
4	DG set (625 KVA)							

2. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
3. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
4. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	150 mg/Nm <sup>3</sup>
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5. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
6. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

**Schedule-III**  
**Details of Bank Guarantee**

Sr. No.	Consent	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to R	Rs. 5 lakh	15 days	Towards O & M of pollution control system	31.07.2021	31.12.2021



## Schedule-IV

### General Conditions

- 1) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2) Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- 3) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 4) Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
- 5) The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 6) The firm shall submit to this office, the 30<sup>th</sup> day of September every year, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 7) The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the H&OW (M&TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 8) The industry should comply with the Hazardous & Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous & Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30<sup>th</sup> June of every year.
- 9) An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 10) **The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.**
- 11) Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website ([www.mpcb.gov.in](http://www.mpcb.gov.in)).
- 12) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- 13) Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 14) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- 15) Conditions for D.G. Set
  - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
  - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler

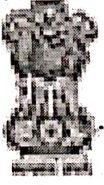


- with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
- c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
  - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
  - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
  - f) D.G. Set shall be operated only in case of power failure.
  - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
  - h) The applicant shall comply with the notification of MoEF dated 17.05.2002 regarding noise limit for generator sets run with diesel.
- 16) The industry should not cause any nuisance in surrounding area.
  - 17) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
  - 18) The applicant shall maintain good housekeeping.
  - 19) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31<sup>st</sup> March of the year and number of trees planted by September end.
  - 20) The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
  - 21) The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
  - 22) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
  - 23) The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
  - 24) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
  - 25) The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dt. 16.11.2009 as amended.

—0000—







**bharatkosh.gov.in**

Government of India Receipt Portal

**RECEIPT**

Transaction Ref.No. 1203200000245 Dated: Mar 12 2020 8:22AM

Received from MS./MRS. GOKUL MAULI SUGARS LTD with

Transaction Ref.No. 1203200000245

Dated Mar 12 2020 8:22AM the sum of INR 500 (Five Hundred Only)  
through Internet based Online payment in the account of

PROCESSING FEE FOR RENEWAL NOC OF GROUND WATER EXTRACTION, ,

**Disclaimer:- This is a system generated electronic receipt, hence no physical signature  
is required for the purpose of authentication**

*Printed On: 12-03-2020 08:23:45*

**Courtesy :- Controller General of Accounts**



सत्यमेव जयते  
Welcome : Gokulmauli

Previous Login Date Time: 12/03/2020 08:25:15 AM , IP Address: 103.211.14.64

Government of India  
Ministry of Jal Shakti  
Department of Water Resources, River Development and Ganga Rejuvenation  
Central Ground Water Authority (CGWA)



Application for Issue of NOC to Abstract Ground Water (NOCAP)

Logout

Applicant Home Apply Feedback Change Password Profile

Location Details	RENEW - INDUSTRIAL USE: SUCCESSFUL SUBMISSION
Communication Address	Print Application
Land Use Details	Your Application Submitted Successfully. Your Application Detail are :
Water Requirement Details	Application Number : 21-4/1166/MH/IND/2017
Recycled Water Usage	Details of Existing CGWA/NOC/IND/ORIG/2018/3325
Groundwater Abstraction Structure- Existing	NOC : (13/03/2018 - 12/03/2020)
Groundwater Abstraction Structure- Proposed	Applied For Renewal : 1st
Other Details	Name of Industry : GOKUL MAULI SUGARS LTD.
Self Declaration	Submitted Date: 12/03/2020
Attachment	Net Ground Water Requirement: 100.00
Final Submit	Please note your application number for future reference.
	Your application has been submitted to office: Regional Director Central Ground Water Board Central Region N.S. Building Civil Lines NAGPUR MAHARASHTRA PinCode : 440001



Government of India  
Ministry of Jal Shakti  
Department of Water Resources, River Development and Ganga Rejuvenation  
Central Ground Water Authority (CGWA)  
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Renew of NOC Issued to Existing Industrial Projects Abstracting GroundWater  
(Application For Renewal of NOC)**

Application Number : 21-4/1166/MH/IND/2017

Applied For Renewal : 1st

<b>1. General Information:</b>	
Water Quality:	Fresh Water
Application Type Category/ Type of Application:	Sugar
(i) Name of Industry:	GOKUL MAULI SUGARS LTD.
(ii) Location Details of the Industrial Unit- (Attach Site Plan and Certified Revenue Sketch) (\$)	
Address Line 1 :	G.NO-69/1/2B TO 80, VILLAGE TADWAL
Address Line 2 :	TAL- AKKALKOT
Address Line 3 :	DIST- SOLAPUR
State:	MAHARASHTRA
District:	SOLAPUR
Sub-District:	AKKALKOT
Village/Town:	Tadwal
Latitude:	
Logitude:	
Area Type :	Non-Notified
Area Type Category :	Safe
(iii) Communication Address	
Address Line 1:	G.NO-69/1/2B TO 80, VILLAGE TADWAL
Address Line 2:	TAL- AKKALKOT.
Address Line 3:	DIST- SOLAPUR
State:	MAHARASHTRA
District:	SOLAPUR
Sub-District:	AKKALKOT
Pincode:	413219
Phone Number with Area Code:	
Mobile Number:	91-9604244103
Fax Number:	
E-Mail:	office@gokulmauli.com
(v) Details of Existing NOC issued by CGWA (enclose copy)	
NOC Letter No:	CGWA/NOC/IND/ORIG/2018/3325
Date of Issuance:	13/03/2018
Validity (Start):	13/03/2018
Validity (End):	12/03/2020

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Government of India  
Ministry of Jal Shakti  
Department of Water Resources, River Development and Ganga Rejuvenation  
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**Application for Renew of NOC Issued to Existing Industrial Projects Abstracting GroundWater  
(Application For Renewal of NOC)**

Application Number : 21-4/1166/MH/IND/2017

Applied For Renewal : 1st

	Reason for not applying for renewal before expiry of NOC Validity (Attach Affidavit):	Industry has applied before expiry of NOC validity							
(vi)	Purpose of Renewal Application:	Existing Ground Water							
2.	Details of Water Requirement (Fresh and Recycled Water Usage): (Please Enclose Water Flow Chart of Activities and Requirement of Water at each Stage) (\$).								
(i)	Total Water Requirement (a+b+c+d) (m3/day)								
		Existing		Additional		Total			
	Water Requirement Details (Fresh Water) (m3/day)								
(a)	Ground Water Requirement (m3/day):	100.00		0.00		100.00			
(b)	Surface Water Available (Canal, River, Ponds etc.) (m3/day):	0.00		0.00		0.00			
(c)	Water Supply from Any Agency (m3/day):	0.00		0.00		0.00			
	Total Fresh Water Requirement (a+b+c)(m3/day):	100.00		0.00		100.00			
(d)	Recycled Water Usage (m3/day):	300.00		0.00		300.00			
	Total Water Requirement : (a+b+c+d)(m3/day)	400.00		0.00		400.00			
(ii)	Breakup of Water Requirement and Usage:								
	Activity	Existing Requirement (m3/day)	Additional Requirement (m3/day)	Total Requirement (m3/day)	No. of Operational Days in a Year	Annual Requirement (m3/year)			
	Industrial Activity	377.00	0.00	377.00	180	67860.00			
	Residential / Domestic	15.00	0.00	15.00	180	2700.00			
	Greenbelt Development /Environment Maintenance	8.00	0.00	8.00	180	1440.00			
	Other Use	0.00	0.00	0.00	0	0.00			
	Grand Total	400.00	0.00	400.00		72000.00			
(iii)	Details of Water Availability from ETP / STP for Recycle / Resuse usage:								
		Existing			Additional			Total	
		(m3/day)	No. Of Days	(m3/year)	(m3/day)	No. Of Days	(m3/year)	(m3/day)	(m3/year)
	Effluent / Sewerage generated and treated in ETP / STP:	310.00	180	55800.00				310.00	55800.00
	Availability treated Effluent / Sewerage for usage:	300.00	180	54000.00				300.00	54000.00



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Applied For Renewal : 1st.

	Effluent / Sewerage discharge after treatment:	0.00	0	0.00			0.00	0.00
(iv)	Availability treated effluent usage : Total quantity same as 2 i (d) and 2 ii (b) above							
				Existing (m3/day)		Additional availability (m3/day)		Total Use + Availability (m3/day)
	Industrial Activity / Commercial Use			292.00		0.00		292.00
	Domestic / Residential Use			0.00		0.00		0.00
	Greenbelt development / Environment maintenance			8.00		0.00		8.00
	Other Use / Flushing Req.			0.00		0.00		0.00
	Total			300.00		0.00		300.00

**3. (a). Groundwater Abstraction Structure- Existing:**

Number of Existing Structures:

3

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether Fitted with Water Meter	Whether Permission Registered with CGWA / If so Details Thereof
1	Dugwell / 2011	30.00 / 8000	18.00	33.00	1 / 180	Submersible Pump	10.00	Yes	Yes / -
2	Dugwell / 2009	26.00 / 8000	17.00	34.00	1 / 180	Submersible Pump	10.00	Yes	Yes / -
3	Dugwell / 2010	28.00 / 8000	17.00	33.00	1 / 180	Submersible Pump	10.00	Yes	Yes / -

**(b). Groundwater Abstraction Structure- Additional:**

Number of Additional Structures:

0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA / If so Details Thereof
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Government of India  
Ministry of Jal Shakti  
Department of Water Resources, River Development and Ganga Rejuvenation  
Central Ground Water Authority (CGWA)  
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

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Application Number : 21-4/1166/MH/IND/2017

Applied For Renewal : 1st

4. (a). Compliance to the Condition prescribed in the NOC			
SNo.	Conditions given in NOC	Compliance Conditions Applicable	Status of Compliance
1	Area Specific Plantation	Yes	Industry has planted 500 trees in industrial premises.
2	Domestic Water School Sanitation	Yes	Industry provided water filter for nearest school.
3	Groundwater quality monitoring - Pre monsoon and Post monsoon	Yes	Ground water sample are collected and analyze by NABL approved lab, all parameters are within permissible limits
4	Maintenarice of recharge structures	Yes	The industry has been practicing rooftop rain-water harvesting in industrial sheds, Godowns and residential colony through recharge pits. All recharge structure maintain by Industry.
5	Number of Pizometers as per NOC and Water Level Record	Yes	As per NOC One piezometer is installed.
6	Number of Tubewells Borewales as per NOC	Yes	3 Dugwell
7	Pizometer fitted with AWLRs with telemetry as per NOC	Yes	As NOC conditions Piezometer fitted with AWLR system
8	Quantum of Groundwater as per NOC	Yes	Industry use 87.00 (m3/day) ground water.
9	Recharge through ponds	Not Applicable	
10	Recycle and reuse of water	Yes	Industry use treated water from ETP for gardening.
11	RWH and AR structures implemented	Yes	Industry has implemented rainwater harvesting and artificial recharge through 5 recharge pits and trenches for 138500 (m3/year) recharge quantum
12	Submission of Compliance report to the Region	Yes	Industry has submitting report to online on NOCAP site in 26 July 2019 and hardcopy to Nagpur offic
13	Water conservation measures	Yes	Water conservation purpose industry has practising recycled and reuses of treated water in washing and irrigation
14	Water Security Plan of villages	Not Applicable	Not applicable
15	Well monitored around the plant premises	Not Applicable	Not applicable
16	Wells fitted with water meter and its Record	Yes	In ground water sources water-flow meters are fitted and log book maintaining for daily water consumption.

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Government of India  
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Central Ground Water Authority (CGWA)  
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**Application for Renew of NOC Issued to Existing Industrial Projects Abstracting GroundWater  
(Application For Renewal of NOC)**

Application Number : 21-4/1166/MH/IND/2017

Applied For Renewal : 1st

(b). Compliance to the Condition prescribed in the NOC - Other		
SNo.	Conditions given in NOC	Status of Compliance
5.	Groundwater Availability (Please Enclose a Comprehensive Report / Note on Groundwater Condition / Groundwater Quality in and Around the Area) Applicable to Industries Consuming Greater Than 500 m <sup>3</sup> /day and / or having a Land Area of Greater Than 2 Ha.- (\$)	Not applicable
6.	Details of Rainwater Harvesting and Artificial Recharge Measures for Groundwater Recharge in the Area. If the Firm has Proposed to take up Rainwater Harvesting and Recharge outside the Industrial Unit Premises, then provide NOC from the Concern Authority / Agency where the Harvesting Measures are Proposed, if Already implemented, details may be furnished. (Attach Report on Comprehensive & Feasible Rainwater Harvesting / Recharge Proposal).- (\$)	Implemented rainwater harvesting details is attached.

**INDUSTRIAL USE- Self Declaration**

I hereby certify that the data and information furnished above are true to the best of my knowledge and belief and I am aware that if any part of the data / information submitted is found to be false or misleading at any stage, the application will be rejected outright.

I hereby declare that all the mandatory documents prescribed in the application form have been uploaded and no blank /irrelevant documents have been uploaded. I am also aware that any false/ wrong submission /uploading of document will lead to rejection of my application without any notice.

It is to certify that no case related to ground water withdrawal/ contamination is pending against the industry/ project/ unit as on date. Any such case filed against the company/ project/ unit in respect of ground water withdrawal/ contamination during the pendency of this application shall be immediately brought to the notice of CGWA.

I hereby undertake that in case any environmental compensation/ penalty is imposed on the firm by any statutory authority, I shall comply with the decision of such authority.

1. Application proforma is subject to modification from time to time.

Application is submitted online on website <http://cgwa-noc.gov.in> to following office.

**Regional Director, Central Ground Water Board Central Region, N.S. Building, Civil Lines, NAGPUR, MAHARASHTRA, 440001**

3. Incomplete application will be summarily rejected.

**Scanned copy of last page of application with signature and seal should be attached at prescribed place before submission of application.**

4. Receipt of Processing Fee of Rs. 500.00/- (Rupees Five Hundred Only) submitted through NON TAX RECEIPT PORTAL (<https://bharatkosh.gov.in>) should be attached along with hard copy of application.

**Processing Fee:-**

Bharat Kosh Transaction Ref. No:- 1203200000245

Bharat Kosh Transaction Date:- 12/03/2020

**Note:- The Processing Fee is Non-Refundable. Applicant should ensure and Check Eligibility of Submission of Application and Required Documents before Submitting Online Application.**

5. Hard copy of application required: No

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Government of India  
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(Application For Renewal of NOC)**

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Applied For Renewal : 1st

**Attached Files:**

1). Site Plan : (Refer: 1 (ii))

No Attachment Found!

2). Certified Revenue Sketch : (Refer: 1 (ii))

No Attachment Found!

3). Reason for Not Applying for Renewal before Expiring NOC : (Refer: 1 (v))

No Attachment Found!

4). Existing NOC : (Refer: 1 (vii))

S.No	Attachment Name	File Name
1	Existing CGWA NOC	Existing CGWA NOC.pdf

5). Enclose Flow Chart of Activity and Requirement of Water: (Refer: 2)

No Attachment Found!

6). Groundwater Availability Report : (Refer: 4)

No Attachment Found!

7). Details of Rainwater Harvesting / Artificial Recharge Measures : (Refer: 5)

No Attachment Found!

8). Authorization :

S.No	Attachment Name	File Name
1	Authorization letter	Authorization latter.pdf

9). Extra Attachment :

No Attachment Found!

10). Compliance to the Condition prescribed in the NOC

S.No.	Conditions given in NOC	Attachments		
		S.No.	Attachment Name	File Name
1	Area Specific Plantation	1	Tree Plantation	Tree Plantation.pdf
2	Domestic Water School Sanitation	No Attachment Found!		
3	Groundwater quality monitoring - Pre monsoon and Post monsoon	1	Premonsoon lab result	Pre monsoon lab result.pdf
		2	Post monsoon result	Post monsoon lab report.pdf
4	Maintenance of recharge structures	1	Maintenance of RWH	Maintenence of RWH.pdf

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Government of India  
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Applied For Renewal : 1st

5	Number of Pizometers as per NOC and Water Level Record	1	Piezometer	Piezometer.pdf
6	Number of Tubewells Borewales as per NOC	1	Water sources	Water sources.pdf
7	Pizometer fitted with AWLRs with telemetry as per NOC	1	Piezometer	Piezometer.pdf
8	Quantum of Groundwater as per NOC	1	ground water quantum	Ground water quantum.pdf
9	Recharge through ponds	No Attachment Found!		
10	Recycle and reuse of water	1	Recycle and Reuse	Recycle and Reuse.pdf
11	RWH and AR structures implemented	1	Implemented RWH	Implemented RWH.pdf
12	Submission of Compliance report to the Region	1	Self Compliance	Self-Compliance Receipt.pdf
		2	Compliance report	Compliance report.pdf
13	Water conservation measures	No Attachment Found!		
14	Water Security Plan of villages	No Attachment Found!		
15	Well monitored around the plant premises	No Attachment Found!		
16	Wells fitted with water meter and its Record	1	Flow meter	Flow meter.pdf

**11). Compliance to the Condition prescribed in the NOC - Other**

S.No.	Conditions given in NOC	Attachments		
		S.No.	Attachment Name	File Name

**12). Bharat Kosh Receipt (Processing Fee):**

S.No	Attachment Name	File Name
1	Transaction Receipt	Transaction Receipt.pdf

**13). Application with Signature and Seal:**

S.No	Attachment Name	File Name
1	Signed application copy	Signed application copy.pdf



Government of India  
Ministry of Jal Shakti  
Department of Water Resources, River Development and Ganga Rejuvenation  
Central Ground Water Authority (CGWA)  
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Renew of NOC Issued to Existing Industrial Projects Abstracting GroundWater  
(Application For Renewal of NOC)

Application Number : 21-4/1166/MH/IND/2017

Applied For Renewal : 1st

Date :

Place :

Name & Signature of the applicant  
(With official seal)

Associated User : Gokulmauli

Submitted By User : Gokulmauli

Submission Date : 12/03/2020

\* In case signed by any authorized signatory, the details of the signatory with the authorization shall be enclosed.

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GOVERNMENT OF INDIA  
MINISTRY OF CORPORATE AFFAIRS

Registrar of Companies, Pune  
Pune PMT Building , 3rd Floor , Deccan Gymkhana

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 and rule 8 of the Companies (Incorporation) Rules, 2014]

I hereby certify that GOKUL MAULI SUGARS LIMITED is incorporated on this Nineteenth day of February Two Thousand Fifteen under the Companies Act, 2013 and that the company is limited by shares.

The CIN of the company is U15422PN2015PLC154088.

Given under my hand at Pune this Nineteenth day of February Two Thousand Fifteen.

Signature Not Verified  
Digitally signed by  
Kishorekumar Vaidya  
Date: 2015.02.19  
10:29:20 GMT+05:30

SHINDE AMOL BHAGWAN  
Assistant Registrar of Companies  
Maharashtra

Mailing Address as per record available in Registrar of Companies office:

GOKUL MAULI SUGARS LIMITED  
167/17 VIDYA VIHAR APARTMENTS,, PANKHA VIHAR, RAILWAY LINE,,  
SOLAPUR - 413001,  
Maharashtra, INDIA





**Sub Divisional Officer Solapur No.2 Solapur**

Talathi / Mahasul Karmachari patsansta, 3<sup>rd</sup> floor, Collector Office Compound, Solapur  
Email [ID-sdosolapur2@gmail.com](mailto:ID-sdosolapur2@gmail.com)

Phone No. 0217-2320385

No.LND/SR/23/2016

Dt :- 06/01/2017



**SCHEDULE VI-B**

(See rule 11C)

**Form the Sanad to be granted to the holder of land**

Whereas, the holder of Gat No. 69,70,71,72 land measuring 297900.00 Sq.M. of the village Tadwal of Taluka Akkalkot Dist. Solapur has intimated commencement of use of the land for sugar industrial purpose, information, under the provisions of section 44A of the Maharashtra Land Revenue Code, 1966;

And whereas, it has been stated by him that he has satisfied himself in a bonafide manner, about applicability and the fulfillment of the conditions specified in sub-section (1) of the said section 44A;

And whereas, the above mentioned intimation and information are true to the best of his knowledge and belief.

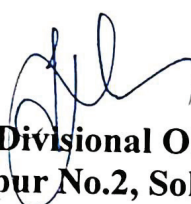
And whereas, on verification it is found that the holder of the land aforesaid fulfills all the conditions specified in sub-section (1) of the said Section 44A.

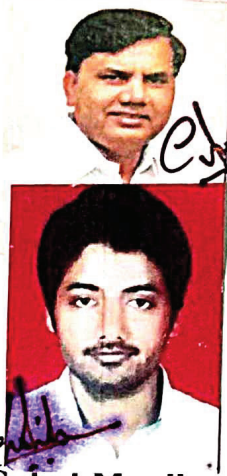
Now, this Sanad is granted to the holder of the land aforesaid subject to the provisions of the said Code and the rules made there under and the following conditions, namely :-

- 1) Assessment. -The holder of the said land in lieu of the assessment here to fore liable in respect of the said land shall pay to Government on the day of 1/8/2016 in each year an annual assessment of Per Sq.mt. Rs.0.15 Paise during the granted period expiring on July as may, from time to time, be fixed by the Collector under the said Code.
- 2) The holder of the said land shall pay to Government, the amount of conversion tax, if any, liable under section 47A of the said Code.
- 3) The holder of the said land shall pay/ all taxes, rates and cases liable on the said land.
- 4) If the holder of the said land contravenes any of the foregoing conditions the Collector may without prejudice to any other penalty to which the user may be liable under the provisions of the Code and rules made there under, continue the said land in the occupation of the holder on payment of such assessment and subject to sub-section (2) of section 329, such fine as he may consider appropriate.

In witness where of the Sub Divisional Officer Solapur No.2 Has hereunto set his hand and the seal of his office on behalf of the Governor of Maharashtra and the applicant has also hereunto set his hand this the day of /12/2016.

Before me

  
Sub Divisional Officer  
Solapur No.2, Solapur




(Signature of Applicant)



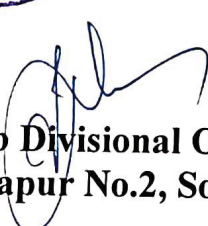
We declare that the Gokul Mauli sugaras ltd.Gokul Dattatraya Shinde. At Tadwal, Taluka Akkalkot, District Solapur who has signed this Sanad, is to our personal knowledge, the person he represents himself to be, and that he has affixed his signature hereto in our presence.

Witnesses-

1)  K.R. Bochare

2) A.P. Nimase.



  
Sub Divisional Officer  
Solapur No.2, Solapur

Copy to Gokul Mauli sugaras ltd.Gokul Dattatraya Shinde **Manging Director** At Tadwal Tal Akkalkot, District Solapur. **Vice-chairman**

Copy to The Collector Solapur (RB) for information.

Copy to Tahsildar Akkalkot for information and necessary action.

Copy to Village Officer Tadwal Tal.Akkalkot for information and necessary action.



## उपविभागीय अधिकारी सोलापूर क्रं.२, सोलापूर यांचे कार्यालय

तलाठी व महसूल कर्मचारी पतसंस्था, जिल्हा मध्यवर्ती सादर कार्यालय, मजला जिल्हाधिकारी आवार सोलापूर  
ई मेल - sdosolapur2@gmail.com फोन नं. ०२१७-२३२०३८५  
क्रं.अ/जमा/बिनशेती/एसआर/२३/२०१६. दिनांक :- ०६/०१/२०१७.

- वाचले १. गोकुळ माऊली शुगर्स लि तर्फे संचालक व्यंकटराव पांडुरंग पाटील, गोकुळ दत्तात्रय शिंदे, अशिष व्यंकटराव पाटील व धिरज गोकुळ शिंदे राहणार तडवळ ता. अक्कलकोट, जि. सोलापूर यांचा अर्ज.
२. तहसिलदार अक्कलकोट यांचेकडील पत्र क्रं.जमा/१/कावि/११२७/२०१६, दिनांक ३०.११.२०१६.
३. ख-याखु-या औद्योगिक प्रयोजनार्थ बिनशेती आकारणी बाबत महाराष्ट्र शासन राजपत्र दिनांक १७ नोव्हेंबर १९९४
४. महाराष्ट्र शासन परिपत्रक क्रं.एनएपी/१०९३/सीआर-५६/एल.२-१९९४ चा महाराष्ट्र अधिनियम क्रमांक २६ व्दारे सुधारणा करण्यात आल्याप्रमाणे म ज म अ संहिता १९६६ कलम ३३८ चे पोटकलम २ खंड १६अ, २४, ३८, ६३ तसेच कलमे ४४अ, ४७अ, ६७, ६९, ११३, ११४, ११५, ११६ अन्वये अकृषिक वापर करून म ज म अ (जमिनीच्या वापरात बदल व अकृषिक आकारणी) नियम १९६९ मधील तरतुदी.
५. शासन परिपत्रक क्रं.एनएपी/१००२/प्रक्र.२१६/ल-९, दि.५ डिसेंबर २००५.
६. महाराष्ट्र जमीन महसूल अधिनियम १९६६ चे कलम ४४(अ).
७. सहाय्यक संचालक नगर रचना सोलापूर यांचेकडील रेखांकन/शेतीपुरक उदयोग (साखर कारखाना) मौजे तडवळ/ता.अक्कलकोट/गट नंबर ६९ पै, ७०, ७१ व ७२/संसनरसो-३९४८ दि ११.११.२०१६ तात्पुरती मंजूरी
८. सहाय्यक संचालक नगर रचना सोलापूर यांचेकडील रेखांकन/शेतीपुरक उदयोग (साखर कारखाना) मौजे तडवळ/ता.अक्कलकोट/गट नंबर ६९ पै, ७०, ७१ व ७२/संसनरसो-४३०३ दि १९.१२.२०१६ अंतीम मंजूरी.

विषय :- मौजे तडवळ ता.अक्कलकोट येथील गट नं. ६९ पै, ७०, ७१ व ७२ क्षेत्र २, ९७, ९००.०० चौ मि या जमिनीस शेतीपुरक उदयोग (साखर कारखाना, डिस्टलरी, को.जन.) या ख-याखु-या औद्योगिक वापरार्थ असलेल्या जमिनीस अकृषिक आकारणी लागू करणेबाबत.

### आदेश.

ज्या अर्था, गोकुळ माऊली शुगर्स लि तर्फे गोकुळ दत्तात्रय शिंदे राहणार तडवळ ता. अक्कलकोट, जि. सोलापूर यांनी या कार्यालयाकडे अर्ज सादर करून मौजे तडवळ ता.अक्कलकोट जिल्हा सोलापूर येथील गट नं. ६९ पै, ७० पै, ७१ व ७२ क्षेत्र २, ९७, ९००.०० चौ मि या जमिनीस (साखर कारखाना, डिस्टलरी, को.जन.) या ख-याखु-या औद्योगिक वापराकरिता बिनशेती आकारणी करून सनद मागणी केली आहे.

ज्या अर्था तहसिलदार अक्कलकोट यांनी त्यांचेकडील पत्र क्रं.जमा/१/कावि/११२७/२०१६, दिनांक ३०.११.२०१६ अन्वये सविस्तर चौकशी करून विषयांकित जमिनीमध्ये औद्योगिक प्रयोजनार्थ बिनशेती परवानगी देणेबाबत अहवाल सादर केलेला आहे.

ज्या अर्था, अर्जदार यांनी सदर जमिनीवर (साखर कारखाना, डिस्टलरी, को.जन.) प्रकल्प हा ख-याखु-या औद्योगिक प्रयोजनार्थ वापर सुरु करणेसाठी खालीलप्रमाणे कार्यालयाकडून प्राप्त परवानग्या/नाहरकत दाखल्यामध्ये नमूद अटी व शर्ती पाळणे व त्याची अंमलबजावणी करणे बंधनकारक राहिल.

१. सहाय्यक संचालक नगर रचना सोलापूर यांचेकडील दिनांक ११.११.२०१६ (तात्पुरती मंजूरी) व दिनांक १९.१२.२०१६ (अंतीम मंजूरी) मध्ये दिलेल्या अटी शर्तीचे काटेकोरपणे अंमलबजावणी करणे बंधनकारक आहे.

२. महाराष्ट्र प्रदुषण नियंत्रण मंडळ यांचेकडील दिनांक १६.०७.२०१६ रोजीचे पत्र.

३. कार्यकारी अभियंता महावितरण, ग्रामीण विभाग सोलापूर यांचेकडील दिनांक २९.११.२०१६ रोजीचे नाहरकत.

४. कार्यकारी अभियंता, सार्वजनिक बांधकाम विभाग सोलापूर यांचेकडील दिनांक ३०.०९.२०१६ रोजीचे पत्र

५. जिल्हा आरोग्य अधिकारी, जिल्हा परिषद सोलापूर यांचेकडील दिनांक ३०.०८.२०१६ नाहरकत.

६. ग्रामपंचायत तडवळ यांचेकडील दिनांक ३०.०६.२०१५. रोजीचे ना-हरकत दाखला.

ज्याअर्थी सदर जमिनीत ख-याखु-या औद्योगिक प्रयोजनार्थ अकृषिक आकारणी लागू करून सनद देण्यास हरकत नाही असे वरीलप्रमाणे कळविले आहे.

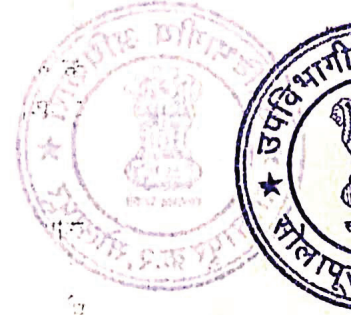
ज्याअर्थी मी उपविभागीय अधिकारी सोलापूर क्रं.२, सोलापूर, मौजे तडवळ ता.अक्कलकोट येथील गट नं. ६९ पै, ७०,

७१ व ७२ मधील उप गटाचे खाली नमुद केले प्रमाणे क्षेत्र, ज्याचा उल्लेख यापुढे उपरोक्त जमिन असा केला आहे.

अ नं .	गट नंबर	क्षेत्र चौमीध्ये
१.	१. ग.नं.६९/१/२/ब	४२००.००
	२. ग.नं.६९/२/अ	१६५००.००
	३. ग.नं.६९/२/ब	२४५००.००
	एकूण	४५२००.००
२.	१. ग.नं.७०/१	१५०४००.००
	२. ग.नं.७०/२/१	१२५००.००
	एकूण	१६२९००.००
३.	१. ग.नं.७१/१	१६२००.००
	२. ग.नं.७१/२	२०२००.००
	३. ग.नं.७१/३	१९२००.००
	एकूण	५५६००.००
४.	१. ग.नं.७२/२	१४२००.००
	२. ग.नं.७२/१/अ	११९००.००
	३. ग.नं.७२/१/ब	८१००.००
	एकूण	३४२००.००
एकूण एकंदर		२९७९००.०० चौमी

उपरोक्त जमिनीत (साखर कारखाना, डिस्टलरी, को.जन.) प्रकल्प या ख-याखु-या औद्योगिक प्रयोजनार्थ बिनशेती वापर करणेकामी महाराष्ट्र शासन परिपत्रक क्रं.एनएपी/१०९३/सीआर-५६/एल.२-१९९४ चा महाराष्ट्र अधिनियम क्रमांक २६ व्दारे सुधारणा करण्यात आल्याप्रमाणे महाराष्ट्र जमीन महसूल अधिनियम १९६६ कलम ३३८ चे पोटकलम २ खंड १६अ, २४, ३८, ६३ तसेच कलमे ४४अ, ४७अ, ६७, ६९, ११३, ११४, ११५, ११६ अन्वये अकृषिक वापर करून महाराष्ट्र जमीन महसूल नियम १९६९ (जमिनीच्या वापरात बदल व अकृषिक आकारणी) मधील तरतुदी व महाराष्ट्र जमीन महसूल अधिनियम १९६६ चे कलम ४४(अ) मधील तरतुदीनुसार वरील जमिनीस प्रति चौ.मी. रु.०.१५ पै. प्रमाणे औद्योगिक अकृषिक आकारणी लागू केल्याचे

आदेश, खालील शर्ती व अटीस अधीन राहून पारित करीत आहे.





## शर्ती व अटी.

१. अर्जदार यांनी प्रतिवर्षी उपरोक्त जमिनीचा औद्योगिक प्रयोजनार्थ होणारा बिनशेती आकार रक्कम रु.४४६८५/- व त्यावरील उपकर शासनाकडे भरणा करावा.
२. अर्जदार यांनी सर्व संबंधित प्राधिकरणाकडील सर्व अटी व शर्तीचे पालन करणे बंधनकारक राहिल.
३. सहायक संचालक नगर रचना यांनी दि ११.११.२०१६ (तात्पुरती मंजूरी) व दिनांक १९.१२.२०१६ (अंतीम मंजूरी) मध्ये दिलेल्या अटी शर्तीचे काटेकोरपणे अंमलबजावणी करणे बंधनकारक आहे.
४. अर्जदार यांनी, अकृषिक कर व त्यावरील स्थानिक उपकर व इतर तदनुषंगिक करात वेळोवेळी होणारे बदल त्याच प्रमाणे जमिनीच्या वापराच्या प्रयोजनामध्ये होणारे बदलास अनुसरून करण्यात येणारी आकारणी अर्जदारावर बंधनकारक राहिल. अशी आकारणी दरवर्षी ३१ जुलै पूर्वी शासनास अदा करणे बंधनकारक राहिल.
५. उपरोक्त जमीन ही ज्या प्रयोजनार्थ बिनशेती वापरार्थ अकृषिक आकारणी करण्यात आलेली आहे त्याच प्रयोजनासाठी त्याचा वापर करण्यात यावा सदर जमीनीचा वापर अन्य कारणाकरीता करता येणार नाही.
६. अर्जदार यांनी संबंधित अग्नीशामक विभागाकडून आवश्यक ते नाहरकत दाखला प्राप्त करून घेवून त्याची प्रत इकडे सादर करावी तसेच/नियमानुसार आवश्यक अग्नि प्रतिबंधक व्यवस्था स्वखर्चाने करणे आवश्यक आहे.
७. अर्जदार यांनी मा.संचालक आदयोगिक सुरक्षा आणि आरोग्य यांचेकडून आवश्यक असल्यास परवानगी प्राप्त करून घेवून त्याची प्रत इकडे सादर करावी.
८. कलम ४४ अ पोटकलम ३ खंड च्या उपखंड १ द्वारे विहित करणेत आलेल्या दहाहजार रुपये एवढ्या कमाल शास्तीस अधिन राहून ज्या तारखेस जमीनीच्या वापरातील बदलास प्रारंभ झाला त्या तारखेची सुचना देण्यात आणि त्या कलमाच्या पोटकलम २ द्वारे आवश्यक असलेली इतर माहिती सादर करण्यात कसूर केल्याबद्दल कसूर करण्यात आलेल्या कालावधीकरिता देण्यात यावयाची शास्तीची रक्कम ही अकृषिक आकारणीच्या २० पट इतक रक्कम भरणा करावी लागेल.
९. अर्जदारांनी दिनांक २.१२.२०१६ रोजी केलेल्या क्षतीपूर्ती बंधपत्रास अनुसरून उपरोक्त जमीनीच्या मालकी हक्काबाबत, इतर हक्कातील नमूद व्यक्ती/संस्था यांचे हक्क/येणे देणेबाबत अथवा उपरोक्त जमीनीच्या धारणाप्रकाराबाबत कोणत्याही दिवाणी अथवा फौजदारी न्यायालयामध्ये किंवा महसूल न्यायालयामध्ये केस/प्रकरण दाखल झालेस अथवा उपरोक्त जमीनीबाबत कोणत्याही न्यायालयामध्ये केसल्याही प्रकारचा वाद/तंटा अथवा केस दाखल झालेस व कोणत्याही प्रकारचा इतर वाद झालेस त्याची संपूर्ण जबाबदारी अर्जदाराची राहिल व त्याची क्षती उप विभागीय अधिकारी कार्यालय क्रं २ अथवा शासनास पोहोचणार नाही व होणा-या दिवाणी व फौजदारी व आर्थिक नुकसानीस अर्जदार सर्वस्वी जबाबदार राहतील
१०. केंद्र शासनाच्या पर्यावरण व वन मंत्रालय यांचेकडील दिनांक १४ सप्टेंबर २००६ रोजीच्या नोटीफीकेशननुसार अभिप्रेत असलेल्या परवानग्याची आवश्यकता असलेस बांधकाम सुरु करणेपूर्वी अर्जदारांनी घेणे आवश्यक आहे.



(संजीव जाधव)  
उपविभागीय अधिकारी  
सोलापूर क्रं.२, सोलापूर

- प्रत :- गोकुळ माऊली शुगर्स लि तर्फे  
संचालक, व्यंकटराव पांडुरंग पाटील, गोकुळ दत्तात्रय शिंदे, अशिष व्यंकटराव पाटील, धिरज गोकुळ शिंदे
- प्रत :- तहसिलदार अक्कलकोट यांचेकडे माहितीसाठी व पुढील कार्यवाहीसाठी.
- प्रत :- गाव कामगार तलाठी तडवळ ता. अक्कलकोट यांना माहितीसाठी व पुढील कार्यवाहीसाठी
- २/- प्रस्तुत आदेशाची नोंद गावदप्तरी घेऊन दरवर्षी अकृषिक सारा व त्यावरील उपकर वसुलात आणवा.
- प्रत :- मा.जिल्हाधिकारी सोलापूर यांना माहितीसाठी सविनय सादर..

(संजीव जाधव)  
उपविभागीय अधिकारी  
सोलापूर क्रं.२, सोलापूर



# Quality Council of India

National Accreditation Board for  
Education & Training



## CERTIFICATE OF ACCREDITATION

### Equinox Environments (India) Pvt. Ltd.

F-11, Namdev Nest, 1160-B, 'E' Ward, Sykes Extension,  
Opp. Kamala College, Kolhapur – 416001, Maharashtra

Accredited as **Category - A** organization under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations: Version 3 for preparing EIA-EMP reports in the following Sectors:

Sl. No.	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals including opencast / underground mining	1	1 (a) (i)	A
2	Offshore and onshore oil and gas exploration, development & production	2	1 (b)	A
3	Thermal power plants	4	1 (d)	B
4	Metallurgical industries (ferrous & non-ferrous) - secondary only	8	3 (a)	B
5	Asbestos milling and asbestos based products	12	4 (c)	A
6	Pesticides industry and pesticide specific intermediates (excluding formulations)	17	5 (b)	A
7	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	18	5 (c)	A
8	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	20	5 (e)	A
9	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates <b>excluding</b> drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	21	5 (f)	A
10	Distilleries	22	5 (g)	A
11	Sugar industry	25	5 (j)	B
12	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	32	7 (d)	A
13	Bio-medical waste treatment facilities	32 A	7 (da)	B
14	Common municipal solid waste management facility (CMSWMF)	37	7 (i)	B
15	Townships and Area development projects	39	8 (b)	B

**Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RA AC minutes dated May 31, 2019 posted on QCI-NABET website.**

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/19/1021 dated August 02, 2019. The accreditation needs to be renewed before the expiry date by Equinox Environments (India) Pvt. Ltd., Kolhapur, following due process of assessment.

Sr. Director, NABET  
Dated: August 02, 2019

Certificate No.  
NABET/ EIA/1821/ RA 0135

Valid till  
21.10.2021

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.





# GOKUL MAULI SUGARS LIMITED

"Maui Group" 4th floor, Fortune Plaza, Thube Park, Near Sancheti Hospital, Shivaji Nagar, PUNE - 411 005 (India)  
Tel : 020-2553 9999, 2553 3336 Email : office@gokulmauli.com CIN NO. : U15422PN2015PLC154088

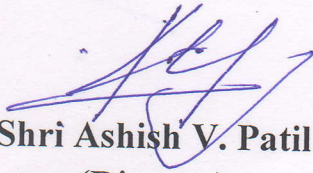
REF NO.: GMSL / 100 /2021-22

DATE: 23.07.2021

## DECLARATION

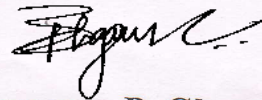
This is to state that the 'Executive Summary & Draft EIA Report' submitted herewith has been prepared in respect of expansion of Sugar Factory from 4500 TCD to 7500 TCD, Cogen Plant from 14.85 MW to 30 MW & establishment of 110 KLPD Molasses (B & C Heavy)/Cane Juice based Distillery Unit by **Gokul Mauli Sugars Ltd. (GMSL)**, located at Gat No. 69, 70, 71, 72, 73, 76/1/2, 488, 493, 494, Tadwal, Tal.: Akkalkot, Dist.: Solapur, Maharashtra State.

Information, data and details presented in this report are true to the best of our knowledge. Primary and secondary data have been generated through actual exercise conducted from time to time as well as procured from the concerned Govt. offices/ departments has been incorporated here subsequent to necessary processing, formulation and compilation.

  
**Shri Ashish V. Patil**  
(Director)

**Gokul Mauli Sugars Ltd. (GMSL)**  
Tadwal, Tal.: Akkalkot, Dist.: Solapur,  
Maharashtra

**Project Proponent**

  
**Dr. Sangram P. Ghugare**  
(Chairman & Managing Director)  
**M/s. Equinox Environments (I) Pvt. Ltd.,**  
(EEIPL)  
F-11, Namdev Nest 1160-B, 'E' Ward  
Sykes Extension opp. of Kamala College,  
Kolhapur 416 001  
**Environmental Consultant**