EXECUTIVE SUMMARY

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

OF

PROPOSED 20 KLPD SPIRIT PRODUCTION

AT PLOT NO. CU19/1, VINCHUR WINEPARK,

VINCHUR-NASHIK VALLEY, TAL: NIPHAD, DIST: NASHIK -422305

BY

M/S. NASHIK AROMA PRIVATE LIMITED

PROJECT PROPONENT

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AT PLOT NO. CU19/1, VINCHUR WINEPARK,

VINCHUR-NASHIK VALLEY, TAL: NIPHAD,

DIST: NASHIK- 422305

1.0 INTRODUCTION

M/s Nashik Aroma Private Limited is registered as a Private Limited Company Registration No. U11011MH2023PTC410102. on 8th September 2023 under Companies Act, 2013 (18 of 2013) at Plot No. 01, Digvijay Co-op. Housing Society Pune Road, Gandhi Nagar (Nashik) Nashik, Maharashtra, India, 422006.

M/s Nashik Aroma Private Limited is a company incorporated with an objective to manufacture and sale Spirit. Presently M/s Nashik Aroma Private Limited producing 1620000 Liter Grape wine at Plot No. CU19/1, Vinchur winepark, Vinchur-Nashik Valley, Tal: Niphad, Dist: Nashik-422305. Industry has obtained consent to operate from MPCB on dated 28/04/2023 valid upto 31/03/2026.

M/s Nashik Aroma Private Limited is proposed 20 KLPD Spirit production at Plot No. CU19/1, Vinchur winepark, Vinchur-Nashik Valley, Tal: Niphad, Dist: Nashik -422305. The proposed project involves the establishment of a plant for the production of 20 KLPD of SPIRIT using malt, grain, maize and grapes as raw materials. The primary raw materials-malt, grain, maize, and grapes-will be sourced from local markets, ensuring easy availability for the distillery operations.

As per EIA Notification dated 14th September, 2006 and its subsequent amendment, the project falls under Category "B", Project or Activity '5(g)' Distilleries (Non-Molasses based ≤ 200 KLPD). Project will be appraised by State Level Expert Appraisal Committee -I and SEIAA Maharashtra at state level.

Accordingly, the project proponent has submitted prescribed application along with Pre-feasibility report to the SEIAA, Maharashtra on Parivesh portal dated 08/10/2024 Proposal no. (SIA/MH/IND2/499132/2024) for ToR.

SEAC- I Maharashtra has granted Terms of reference (ToR) for Spirit production Plant dated 22/11/2024 File No.: SIA/MH/IND2/499132/2024 and ToR Identification No. TO24B2504MH5962434N.

Based on the granted ToR, Environmental Impact Assessment studies were carried out and draft EIA report has been prepared. Draft EIA report is submitting to Sub Regional officer, Nashik for the public hearing.

2.0 PROJECT LOCATION

M/s. Nashik Aroma Private Limited is located in plot No. CU19/1, Vinchur Winepark, Vinchur-Nashik Vellay, Tal: Niphad, Dist: Nashik 16°15'17.90"N Longitude: 74°21'7.10"E. The proposed project will be developed on owned plot area of 12,600 m2. Nandur Madmeshawa Wildlife Sanctuary is located within a 10 km radius from the project boundary. The distance from the project boundary to the sanctuary is approximately 8.5 km.

Figure 1: Google Image of Project Boundary

3.0 PROJECT DESCRIPTION

Sr No	Particulars	Details
1	Name of the Company	M/s. Nashik Aroma Private Limited
2	Location	Plot No. CU19/1, Vinchur Winepark, Vinchur-Nashik Valley, Tal: Niphad, Dist: Nashik - 422305
3	Constitution of the Organization	Private Limited
4	Capacity of the Project	20 KLPD
5	Products	Grape spirit, Fruit spirit and Mahua Flower spirit, Grain, Maize and Malt etc based 20 KLPD sprit plant
6	By products	Pomace : 37 MT Per day
7	No. of Working days	330 days

8	Total Land	12600 m2
9	Greenbelt	4158 m2
10	Raw material & Requirement	Grape, Fruits and Mahua Flower, Grain, Maize and Malt etc.
11	Fresh water Source	Surface Water. MIDC Vinchur
12	Water requirement	20CMD
13	Boilers	NA
14	DG set	NA
15	Power	550KW
16	Steam	NA
17	Fuel	NA
18	Effluent Generation	Effluent: 65 m3/day Other Effluent 16.5 m3/day
19	Effluent Treatment	Decantation Followed neutralization, Anaerobic aeration followed by secondary. Sewage will be treated in 5CMD STP.
20	APC system	NA
21	Manpower	10 Permanent and 20 Contractual
22	Project cost	7+5 =12Cr (7 for winery + 5 for Spirit)

4.0 BASIC RAW MATERIAL

4.1 Land requirement: The proposed project will be developed on owned plot area of 12,600 Sq. meters located at Plot No. CU19/1, Vinchur winepark, Vinchur-Nashik Valley, Tal: Niphad, Dist: Nashik. No additional land will be required for spirit plant.

Sr. No	Land particulars	Area in sq. m.
1	Plant Area	2773
2	Proposed Storage Area	143
3	Existing ETP	108.8
4	Proposed ETP	918
5	RWH	15
6	Road	1545
7	Open area	2973.2
8	Parking	289
9	Proposed green belt	3835
10	Plant Area	2773
11	Proposed Storage Area	143
12	Existing ETP	108.8
	Total	12600

4.2 Raw Material: Details of the raw materials required for process, their source of procurement and mode of transportation is given in below table-

Sr. No	Raw Materials	Requirement MT/day	MT/ annum	Storage	Source	Transportation
1	Grape	95	31500	Covered Shed	Local market and farmer	By road
2	Fruits	9.1	3000	Covered Shed	Local Markets and farmar	By road
3	Mahua Flower	10	3300	Covered Shed	Local Markets	By road
	Chemicals					
1	Sodium Hydroxide	0.002	0.66	Solid form and stored in the chemical room	Local market	By road
2	Potassium Mta bi sulphite	0.001	0.33	Solid form packed in 30 kg bags & stored in godown	Local market	By road
3	Citric acid	0.002	0.66	Solid form packed in 25 kg bags & stored in godown	Local market	By road
4	Yeast	0.003	1.1	Solid form & Packed in Bags	Local market	By road

4.3 Water Requirement: Total requirement of fresh water for 20 KLPD spirit plant using grain 14.5 M3/day. Detail of the fresh water consumption as below -

Operation stage	Water consumption in liters per day
Crushing	500
Cleaning	3000
Fermentation	2000
Racking	1000
Pot washing	3000
Cooling tower	5000
Domestic	5500
Total	20000

4.5 Power requirement: During operation phase power requirement will be 550KW and will be fulfilled from State Electricity Board and in-house Solar power panel.

4.6 Manpower requirement: The industry employs a total of 10 permanent staff members and 20 contractual workers, all of whom are hired from the local area.

4.7 Project Cost: Capital cost of the proposed project scheme from 20 KLPD spirit plant will be Rs. 12 Cr.

5.0 BASELINE ENVIRONMENT

M/s Nashik Aroma Private Limited is proposed 20 KLPD Sprit production at Plot No. CU19/1, Vinchur winepark, Vinchur-Nashik Valley, Tal: Niphad, Dist: Nashik - 422305. The study area is considered to be within 10 km radius of the project site for baseline environment monitoring. The studies were conducted during summer season for the period of March to May 2025.

5.1 Ambient Air Quality:

- **Particulate Matter (PM 10):** The maximum 67.9 µg/m3 concentration of PM10 was observed at Vinchur and minimum 49.8 µg/m3 concentration was observed at Dindori village
- **Particulate Matter (PM 2.5):** The maximum 28.9 µg/m3 concentration of PM10 was observed at Dindori and minimum 15.4 µg/m3 concentration was observed at project site.
- **Sulphur Dioxide (SO2):** The maximum 9.9 µg/m3 concentration of SO2 was observed at Sonewadi Bk and Lasalgoan with minimum 3.2 µg/m3 concentration was observed at Project site.
- **Oxide of Nitrogen (NOx):** The maximum 12.7 µg/m3 concentration of NOx was observed at Dongargaon and Naitale with minimum 5.5 µg/m3 concentration was observed at Project site.
- **Carbon Mono-oxide (CO):** The maximum 0.9 µg/m3 concentration of SO2 was observed at Sonewadi Bk and Lasalgoan with minimum 0.2 µg/m3 concentration was observed at Project site

Based on samples collected during the period of March to May 2025 it has been observed that the concentration of All gaseous pollutants was within the stipulated standards of NAAQMS.

5.2 Noise Monitoring: Noise monitoring was carried out as per MoEF and CPCB guidelines. To understand the Noise Quality with respect to zone category, eight representative locations were selected. Noise monitoring was carried out from time 06:00 Hrs to 22:00 Hrs and Night Time – 22:00 Hrs to 06:00 Hrs. Obtained results are compared with Noise pollution rules 2000. All values during day and night period are under the permissible standards.

5.3 Surface water Environment: Surface water sampling has been done at 8 locations distributed in the study area.

- **pH:** pH of the all-surface water sample is ranges from 7.39 to 8.22
- **Total Dissolved Solids:** The results show the ranges of TDS 301 mg/l to 496 mg/l.
- **Biological Oxygen Demand (BOD):** BOD in all samples ranges from 5 mg/l to 14 mg/l
- **Chemical Oxygen Demand:** COD in all samples ranges from 20 mg/l to 49 mg/l.
- **Total Hardness:** The desirable limit for total hardness, as per the Indian standards is 200 mg/lit and the values observed in samples are below the desirable limit.
- **Chloride:** The concentrations of the chlorides of all samples were between 33.5 to 95.5 mg/lit.
- **Sulphate:** The concentration values ranged from 40.6 to 98.6 mg/lit

5.4 Ground Water: Groundwater sampling has been done at eight locations distributed in the study area.

- **pH**: The pH is a measure of the activity of the (solvated) hydrogen ion. The range of pH is neutral to alkaline (7.21 to 8.07).
- **Total Dissolved Solids:** The amount of dissolved solids presents in water in the range of 302 to 487 mg/l.
- **Total Hardness:** The values of the samples analyzed are in the of 141 to 192 mg/l
- **Chloride:** The chloride values are in the range on 28.7 to 121.3 mg/l.
- **Sulphate:** The concentrations of sulphates is in the range on 29.3 to 75.3 mg/l.

5.5 Soil Environment: A 10-kilometer radius around the project location was used to collect eight samples.

- The soil being of friable consistency, the bulk density & water holding capacity of the soil is in the range of 0.66 to 0.72 g/cm3 & 21% -52% respectively.
- The pH of the soil in the study area is in the range of 8.1 to 8.6. The (Electrical Conductivity) of the soil extract in the study area is in the range of 151 -1340µS/cm. CEC is in between 0.59 to 1.2 meq/100g.
- Analysis shows that the concentration of organic matter is in the range of 1 to 2 % and total organic carbon is in the range of 0.8 to 4.7 mg/Kg.
- Available phosphorous potassium and nitrogen, of the soil samples are found to be in the range of 14.1-36.4, & ९८ -४९ & 94.3-112 kg/ha respectively.

- Soil samples were also analyzed for heavy metals such as Zinc (Zn), Iron (Fe) and Copper (Cu) and their concentrations are presented in the presence of heavy metals at proper pH enhances the microbial activity. In soil. The concentration of heavy metals found in the study area is normal.

5.6 Ecology: As per MoEF guidelines, the EIA study covered a 10 km radius around the project site. An ecological survey was carried out to list species, assess baseline ecological conditions, and predict impacts with mitigation measures. Data were collected on topography, land use, vegetation, and fauna

- **Flora:** Based on field survey primary data were generated by preparing a general checklist of the plants encountered in this area. The study showed overall 81 species from 42 tress, 14 shrubs, 7 herbs, 4 palms, 6 climbers & 8 grasses. The floristic survey reveals that the study area is having dominance of trees viz. *Azadiricta indica, Mangifera indica, Butea monosperma, Dalbergia sissoo, Tectona gr,andis, Terminalia tomentosa, Madhuca longifolia* etc. and certain shrubs *viz, Calatropis procera, Lantana camera*, *Ricinus communis, Nerium indicum* besides herbs like *Ageratum conyzoides, Parthenium hysterophorus, Tridax procumbens* etc
- **Fauna:**

  Mammals*:* The survey revealed that there were 12 species of mammals in the study area.

  Avifauna: During the survey, 25 species of birds were noticed. None of these birds are endangered (Schedule I) as per Wildlife (Protection) Act 1972.

  Reptiles and Amphibians: Altogether 5 species of reptiles and two species amphibians were recorded.

  Butterflies: Study area comprises of 12 species of butterflies, dominated by *Euploea core, Catopsilia Papilio demoleus, Eurema hecabe,Junonia altites, Catopsilia pomona, Papilio polytes* etc. None of these is endangered (Schedule I) as per Wildlife (Protection) Act 1972.

5.7 Socio Economic Survey: According to recent censes (2011) while dealing study area (10 Km radius from project site) as per secondary data the total population is 150643 in 29351 households. Male population is 77920 and female population is 72723. There are 29351 households in the study area and the average size of household is 5 members per household in the study area. The dependent population below 6 years is 19728 (13.09 % of the total population) in the study area. In the study area the average literacy rate is 72%, whereas the

male literacy is 55.46% and female literacy is 44.53% in the study area. Total working population is 51.16%, out of working population almost 47.89% peoples are in main working population category and 3.27 % Population is in marginal population category

6.0 ENVIRONMENT IMPACT AND ITS MITIGATION MEASURES

6.1 Air Environment

- The source of dust emissions is loading/unloading, transportation and storage of raw material& finished product.
- Adequate pollution control measures will be taken to keep the emissions from all sources within the statutory norms. Spraying of water on roads will be done to control such emissions.
- Emissions from DG sets while in operation during power failure
- Ambient air quality monitoring in and around the premises will be carried out as per direction by Maharashtra Pollution Control Board (MPCB).
- Usage of respiratory protective equipment by all employees to be ensured
- Proper ventilation system is provided to remediate the odour problem

6.2 Land Environment

- The main sources which will affect the land environment are by products from proposed activity i.e. ETP effluent & sludge etc.
- The Generated Effluent Will be treated in ETP. Measures will be taken to minimize waste soil generation. Construction waste material will be recycled.
- Designation and demarcation of construction site with due provision for infrastructure. Appropriate measures are adopted for slope stabilization to reduce land erosions.
- Used oil from D.G. Set shall be sold to recyclers. There are no other hazardous wastes.

6.3 Noise Environment

- During the operation phase noise will be generated from noise generating sources.
- The principle source of noise from industry are from fans, centrifuge etc.
- Exposure to excessive noise produces varying degree of damage to human hearing system which is initially reversible. Speech interference, sleep interference annoyance, mental fatigue and headache are few of the other effects which are caused by the high-level exposure of long duration noise.

- Suppliers of major noise-generating equipment (e.g., compressors, pumps) will be instructed to incorporate design modifications to reduce noise and ensure compliance with regulatory norms.
- Periodic maintenance of machinery and vehicles should be undertaken to reduce the noise impact.
- Employees should be provided with Personal Protective Equipment's like earplugs or earmuffs, wherever required.
- Extensive oiling, lubrication and preventive maintenance will be carried out for the machineries and equipment to reduce noise generation.
- Areas with high noise levels will be identified and will include prominently displayed caution boards.
- The green belt area is developed within industrial premises and around the periphery to prevent the noise pollution in surrounding area.

6.4 Water Environment:

- Discharge of waste water within & outside plant boundary will leads to the ground water pollution.
- Discharge of effluent will be impact to loss of soil fertility and deteriorate the soil quality.
- Production facilities are designed based on achieving "Zero Effluent Discharge" norms.
- Coloured effluent i.e. spent wash & washings from Malt Spirit Plant / Craft rum plant/Pilot Fermentation plant etc shall be concentrated into solids with Evaporator followed by drying in the sludge drying beds.
- Effluent i.e. process Condensates, spent lees & washings etc. will be treated in C.P.U. (Capacity 20 CPU) & the treated water will be recycled back to process plant.
- Wet cake (DWGS) will be utilized as manure ingredients.
- Solids removed from Cane juice & Malt spent wash shall be sold off as organic manure.
- Sewage from domestic activity will be treated in proposed sewage treatment plant (Capacity 5 KLPD).
- Rainwater harvesting will be done within the plant premises

6.5 Solid Waste

Sr. No.	Details of the solid waste	Quantity in MT/A	Mode of Disposal
Non-Hazardous			
1.	Grape Pomace	400	Used as manure
2.	STP / ETP Sludge (Biological Method only)	100	Used as manure
3.	Food waste	10	Used as manure

Green belt Development Plan: M/s. Nashik Aroma Pvt. Ltd. owns a total area of 12,600 sq. meters, out of which a 4158 Sq.m portion will be developed as a greenbelt. The company has made provisions to plant 1040 trees over a 4158 Sq.m area.

Socio-economic Environment

In order to mitigate the impacts likely to arise out of the proposed project and also to maintain good will of local people, it is necessary to take steps for improving the social environment. Necessary social welfare measures by the industry shall be useful in gaining public confidence and meet local area development requirement.

7.0 ENVIRONMENT MONITORING

Based on the baseline data collected on various environmental parameters in the study area and the prediction and assessment of impacts due to the proposed project, a comprehensive Environmental Monitoring Program is required to be developed, to satisfy the various statutory requirements for discharges and emissions and also to identify the trend of various environmental parameters.

Environmental monitoring program covers various areas like –

- Ambient air quality
- Water quantity and quality
- Effluent quality
- Noise
- Soil characteristics
- Ecology
- Hazardous waste management
- Safety/Health check up.

8.0 CORPORATE ENVIRONMENT RESPONSIBILITY (CER)

As an additional part of the EMP cost, the proponent proposes to invest 10 Lakhs (2% of the project cost of 5.0Cr) before commencement of the project, to be considered for implementing the activities in the context of the local scenario of the area.

Proposed Programme
Installation of drinking water facility including water purification systems in nearby ZP schools and colleges
Solar Street lamp installation in nearby villages, schools, colleges and hospitals
Development of computer lab in schools and colleges.
Tree avenue plantation in village roads
Skill development programme in school
Awareness programme for local farmers - enhancing crop and fodder Yield
Development of roads in villages, schools, hospitals and libraries
Development of rain water harvesting in village

9.0 COST FOR ENVIRONMENT MANAGEMENT PLAN

M/s. Nashik Aroma Private Limited has proposed a capital investment of Rs.110.2 lakh and a recurring cost of Rs 11.15 lakh per annum for environmental protection measures. The details of investment for procuring the equipment for efficient control and monitoring of Pollution along with annual recurring cost are given in below table-

Sr. No.	**Environment Aspect**	**Capital Cost (in Lacs)**	**Recurring Cost (in Lacs)**
1	Water & Wastewater management: ETP	75.00	5.0
2	Solid Waste Management	5.0	1.0
3	Green Belt Development	5.20	2.0
4	Environment Monitoring Ambient Air, Water and Soil and Noise)	0	2.15
5	Rain Water Harvesting	20.00	0.5
6	Health & Safety	5.0	0.5
Total		**110.2**	**11.15**