

EXECUTIVE SUMMARY
OF
ENVIRONMENTAL IMPACT ASSESSMENT REPORT
&
ENVIRONMENTAL MANAGEMENT PLAN
FOR

Wanoja Limestone Block
(Area: 313 Ha)

With Cement Grade Limestone Production Capacity: 0.30 Million TPA,
Top Soil: 0.01 Million TPA, Waste (Overburden): 0.16 Million TPA
(Total Excavation: 0.47 Million TPA)

At

Villages: Wanoja, Zutting and Naranda in Tehsil: Korpana,
District: Chandrapur, State: Maharashtra

Baseline Period- Winter Season (December 2025 to February, 2026)

TOR Identification No. TO26A0000MH5429352N

PROJECT PROPONENT



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CONTENT LIST

S. No.	CONTENTS	PAGE NO.
1.1	INTRODUCTION	1
1.2	PROJECT DESCRIPTION	1
1.3	MINING DETAILS	3
1.4	YEAR WISE PRODUCTION & EXCAVATION	4
1.5	DESCRIPTION OF THE ENVIRONMENT	4
1.6	ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	5
1.6.1	AMBIENT AIR ENVIRONMENT	6
1.6.2	NOISE & VIBRATION	6
1.6.3	WATER ENVIRONMENT	7
1.6.4	LAND ENVIRONMENT	8
1.7	POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME	8
1.8	ADDITIONAL STUDIES	9
1.8.1	PUBLIC HEARING	9
1.8.2	HYDRO-GEOLOGICAL STUDY	9
1.8.3	BIOLOGICAL ENVIRONMENT	10
1.8.4	SOCIO-ECONOMIC ENVIRONMENT	10
1.8.5	REHABILITATION & RESETTLEMENT ACTION PLAN	11
1.8.6	RISK ASSESSMENT & DISASTER MANAGEMENT PLAN	12
1.9	PROJECT BENEFITS	12
1.10	ENVIRONMENT MANAGEMENT PLAN	13
1.11	CONCLUSION	13

LIST OF TABLES

S. NO.	NAME	PAGE NO.
1	PROJECT DESCRIPTION	1
2	MINING DETAILS	3
3	EXCAVATION DETAILS DURING THE PLAN PERIOD	4
4	POST PROJECT MONITORING PROGRAMME	9



EXECUTIVE SUMMARY

1.1 INTRODUCTION

Dalmia Cement (Bharat) Ltd. (DCBL) has Proposed Wanoja Limestone Block (Area: 313 ha) with Cement Grade Limestone Production Capacity: 0.30 Million TPA, Top Soil: 0.01 Million TPA and Waste (Overburden): 0.16 Million TPA; (Total Excavation: 0.47 Million TPA) located at Villages: Wanoja, Zutting and Naranda in Tehsil: Korpana, District: Chandrapur, State: Maharashtra.

DCBL has secured this Block through e-Auction and subsequently, Government of Maharashtra issued the Letter of Intent (LoI) vide Letter No. MNG-1024/C.R.83/Ind-9(A), dated 01.04.2025 for grant of Mining Lease for the said Block for a period of 50 years in favor of DCBL.

As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category “A”, (>250 ha) and is covered under Project or Activity 1 (a) – 3 for “Mining of Mineral”.

This report has been prepared as per Terms of Reference (ToR), issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India, New Delhi Vide File No. IA-J-11015/4/2026-IA-II(NCM), TOR Identification No. TO26A0000MH5429352N, dated 18.05.2026 for carrying out the Environmental Impact Assessment study for obtaining Environment Clearance.

1.2 PROJECT DESCRIPTION

Table - 1
Project Description

S. No.	Particular	Details
A.	Nature of the Project	Opencast Mechanized Limestone Mine
B.	Size of the Project	
1.	Mine Block Area	313 Ha (Private Land: 257.35 ha and Govt. Land: 55.65 ha)
2.	Proposal	➤ Cement Grade Limestone: 0.30 Million TPA ➤ Top soil: 0.01 Million TPA ➤ Waste (Overburden): 0.16 Million TPA Total Excavation: 0.47 Million TPA
C.	Project Location	
1.	Villages	Wanoja, Zutting and Naranda
2.	Tehsil	Korpana
3.	District	Chandrapur
4.	State	Maharashtra
5.	Latitude & Longitude	Latitude: N 19°47'20.400" to N 19°49'1.956" Longitude: E 79°02'55.392" to E 79° 3' 55.548"
6.	Toposheet No.	Core zone: E44B1 (56M/1) Buffer Zone: E44B1 (56M/1), E44B2 (56M/2), E44A13 (56I/13) & E44A14 (56I/14)
D.	Environmental Setting Details (with approx. aerial distance & direction from the mine boundary)	
1.	Nearest Village/Habitation	➤ Village Wanoja (~0.52 km from block boundary & ~0.94 km from UPL in NE direction); however, some habitation of Wanoja Village (~0.33 km from block boundary & ~0.73 km from UPL in NE direction) ➤ Naranda (~0.65 km from block boundary & ~0.68 km from UPL in

Wanoja Limestone Block (Area: 313 Ha) with Cement Grade Limestone Production Capacity: 0.30 Million TPA, Top Soil: 0.01 Million TPA, Waste (Overburden): 0.16 Million TPA (Total Excavation: 0.47 Million TPA) At Villages: Wanoja, Zutting and Naranda in Tehsil: Korpana, District: Chandrapur, State: Maharashtra	Executive Summary
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S. No.	Particular	Details
		South direction) ➤ Pipri (~2.3 km from block boundary & ~2.4 km from UPL in West direction)
2.	Nearest Town/City	Gadchandur (~13.5 km in ESE direction)
3.	Nearest Highway	➤ NH-353B (~4.5 km in South direction) ➤ SH-236 (0.3 Km in East direction & as well as ~5.0 km in West direction) ➤ MDR Road, CHAMD-1 (0.80 Km in SE direction)
4.	Nearest Railway Station	Gadchandur Railway Station (~13.0 Km in ESE direction)
5.	Nearest Airport	Dr. Babasaheb Ambedkar International Airport, Nagpur (~140 km in North direction)
6.	National Park, Wild Life Sanctuary, Biosphere Reserves, Wildlife corridors etc. within 10 km radius of the project site	There are no National Park, Wildlife Sanctuaries, Biosphere Reserves, Tiger Reserves, Wildlife Corridors etc. present within 10 km radius of the study area. ➤ ESZ From Tadoba-Andhari Tiger Reserve (~34 km in NE direction) ➤ Boundary of Tadoba-Andhari Tiger Reserve (~38 km in NE direction)
7.	Reserved / Protected Forest within 10km radius study area	➤ RF (Compartment No. 190- notified on 11 July 2017) 0.2 Km in South (Boundary marked on Parivesh, not available on SOI Toposheet) ➤ Pardi RF (~1.5 km in North direction) ➤ Junoni RF (~6.0 km in WNW direction) ➤ Manikgarh RF (~7.8 km in South direction) ➤ Kanargaon RF (~8.8 km in WSW direction) ➤ Reserved Forest (~9.0 km in NW direction)
8.	Water body within 10 km radius of study area	➤ Penganga River (~0.04 km in North direction) ➤ Naranda Pond (~1.0 km in South direction) ➤ Amal Nala (~2.0 km in ENE direction) ➤ Nallah Vagu (~7.0 km in ESE direction) ➤ Vaidarbha River (~7.4 km in West direction) ➤ Khadakia Nala (~8.0 km in North direction) ➤ Bop Nala (~9.0 km in ENE direction)
9.	Inter State boundary	Maharashtra-Telangana State Border (~18.0 Km in SW direction)
10.	Seismic Zone	Zone – II as per IS: 1893 (Part-I): 2025
E.	Project Requirements	
1.1	Total Power Requirement	0.5 MW (State Electricity Board)
1.2	Total Water Requirement	55 KLD (Groundwater and Harvested Rainwater in Mine Pit)
1.3	Manpower Requirement	48 Persons (Preference will be given to the locals as per their eligibility)
F.	Waste Generation	
1.	Mine Waste	During Plan Period, 0.027 Million Tonnes of top soil and 0.497 Million Tonnes of waste (Overburden) At conceptual stage, 0.446 Million Tonnes of Top Soil and 64.46 Million Tonnes of OB Waste Management: - Top Soil will be used for greenbelt/plantation purpose - Waste (overburden) will be utilized for formation of the bund, road maintenance and will also be used for backfilling after reaching ultimate depth of mine or will be sold to other end-users with the

Wanoja Limestone Block (Area: 313 Ha) with Cement Grade Limestone Production Capacity: 0.30 Million TPA, Top Soil: 0.01 Million TPA, Waste (Overburden): 0.16 Million TPA (Total Excavation: 0.47 Million TPA) At Villages: Wanoja, Zutting and Naranda in Tehsil: Korpana, District: Chandrapur, State: Maharashtra
Executive Summary

S. No.	Particular	Details
		permission of competent authority. Existing dump of waste (~2.3 Million Tonnes of OB/waste) within the mine boundary will be re-handled and systematically managed for beneficial utilization of waste with effective land reclamation and Mineral conservation.
	Cost Details	
1.	Total Project Cost	Rs. 70.0 Crore
2.	Cost for Environment Protection Measures	Capital Cost: Rs. 2.86 Crore Recurring Cost: Rs. 0.704 Crore/Annum

Source: Site Visit & Approved Mining Plan along with PMCP

1.3 MINING DETAILS

The mine will be developed as an opencast mine and will be operated using a mechanized mining method involving drilling and blasting operations.

It is proposed to use the Cement grade Limestone in the adjoining Cement Plant of Company. The Blendable/beneficiable grade limestone (CaO 34-42%) will be temporarily stacked for further blending with high grade minerals or sell out to open market. The proposed limestone mining project is envisaged to meet the requirement of limestone for the company's cement manufacturing unit. The project will ensure a reliable and sustainable supply of limestone, thereby supporting the continued and sustained operation of the cement plant. The cement plant has been revived by DCBL through the insolvency resolution process, thereby facilitating the long-term sustainability of the plant and associated employment opportunities, while contributing to the overall socio-economic development of the region.

Drilling will be carried out by crawler mounted DTH drill machine with in-built arrangement of water sprinkling and dust extraction system. Controlled blasting will be carried out. Hydraulic Rock breaker will be deployed for breaking the oversized boulders. Hydraulic excavator will be used in combination with dumpers and 35 tonnes tippers for loading and transportation of limestone.

During the plan period, the excavated limestone will be transported to the existing crushing plant located outside the block area in adjacent mine of the company. No mineral beneficiation will be carried out at the mine. After the plan period, a crusher with a capacity of 500 TPH will be installed within the block mine lease area. After crushing, the limestone will be conveyed to the company's cement plant through a covered conveyor belt system. Depending on market demand, limestone may also be supplied to other end-use industries by road.

Table - 2
Mining Details

S. No.	Particular	Details
1.	Mining Method	Opencast Mechanized Mining with drilling and blasting
2.	Production Capacity	➤ Cement Grade Limestone: 0.30 Million TPA ➤ Top Soil: 0.01 Million TPA ➤ Overburden: 0.16 Million TPA Total Excavation: 0.47 Million TPA
3.	Total Geological Reserves	50.379 Million Tonnes
4.	Total Mineable Reserves	45.713 Million Tonnes

Wanoja Limestone Block (Area: 313 Ha) with Cement Grade Limestone Production Capacity: 0.30 Million TPA, Top Soil: 0.01 Million TPA, Waste (Overburden): 0.16 Million TPA (Total Excavation: 0.47 Million TPA) At Villages: Wanoja, Zutting and Naranda in Tehsil: Korpana, District: Chandrapur, State: Maharashtra
Executive Summary

5.	Life of Mine	~55 years
6.	Bench Height	2-5 meter
7.	Bench Width	15-20 m (During Working Stage) 5 m (At Conceptual Stage)
8.	Elevation Range	194m AMSL to 216m AMSL Avg. 205m AMSL
9.	Overall Pit Slope	85°
10.	Ultimate Pit Slope	45°
11.	Water Table	160 m AMSL
12.	Ultimate Depth During Plan Period	17 m bgl (198m AMSL)
13.	Ultimate Pit Limit	92 m bgl (120m AMSL)
14.	ROM/Waste Ratio (Tonnes : Tonnes)	1:0.53
15.	Number of Working days	300
16.	Number of Working Shifts	01 Shifts @ 06 hours

Source: Derived from Approved Mining Plan along with Progressive Mine Closure Plan

1.4 YEAR WISE PRODUCTION & EXCAVATION

Table – 3
Excavation Details During Plan Period

Year	Total Excavation	Quantity: In Tonnes per Annum			
		Top Soil	Waste (OB)	Limestone	ROM/ Waste Ratio
1 st	Development Stage				
2 nd	118264	3864	64400.00	50000.00	1:1.28
3 rd	234408	7608	126800.00	100000.00	1:1.27
4 th	369600	9600	160000.00	200000.00	1:0.80
5 th	455184	8784	146400.00	300000.00	1:0.49
Total	1177456	29856	497600.00	650000.00	-

Source: Approved Mining Plan along with Progressive Mine Closure Plan

1.5 DESCRIPTION OF THE ENVIRONMENT

Baseline data for the environmental studies has been collected during Winter Season (Dec., 2025 to Feb., 2026) for carrying out the Environment Impact Assessment (EIA) study.

Ambient Air Quality

Ambient Air Quality Monitoring reveals that the concentrations of PM_{2.5} and PM₁₀ for all the 11 AAQM stations were found between 18.7 to 48.9 µg/m³ and 36.9 to 84.5 µg/m³ respectively. The concentrations of SO₂ and NO₂ were found in range of 4.4 to 15.3 µg/m³ and 9.8 to 26.5 µg/m³ respectively. The Concentration of CO varies between 0.54 mg/m³ to 0.76 mg/m³. However, at most of the location the values are below detection limit.

Ambient Noise Levels

Ambient noise levels were measured at 11 locations around the proposed mine site. Noise levels varied from 44.7 to 64.8 Leq dB (A) during day time and from 38.8 to 54.7 Leq dB(A) during night time. From the above study and discussions, it can be concluded that noise levels in the study area are well within the prescribed limits as prescribed by the CPCB.

Surface Water Quality

During the baseline study, out of the 09 surface water sampling locations, surface water was present only in 8 water bodies and one was found dry. The pH of the surface water samples was observed 7.28 to 8.29 showing slightly alkaline in nature. The water bodies are rich in calcium, silica, potassium, magnesium and bicarbonates. The colour and turbidity were in permissible range and odour was found agreeable at all the locations.

The concentration of other chemical parameters was; Total Hardness as CaCO₃ (154 to 380 mg/l); Alkalinity as CaCO₃ (107.1 to 320 mg/l); Total Suspended Solid (1.8 to 6.2 mg/l), BOD (1.6 to 4.4 mg/l); COD (9.0 to 26.0 mg/l) and DO (5.8 to 7.1 mg/l); Chloride (32.4 to 67 mg/l); Sulphate (17.7 to 60.7 mg/l), Magnesium (11.9 to 47.3 mg/l); Calcium (42.0 to 92.2 mg/l) and Fluoride (0.37 to 1.40 mg/l).

Ground Water Quality

During the baseline study, the quality of ground water was studied by collecting 10 water samples from hand pumps/ borewell. The pH of the water samples ranged from 7.13 to 7.76 indicating slightly alkaline in nature. The values of Total Hardness (147.0 to 526.0 mg/l), Alkalinity (85.6 to 567.0 mg/l) and Total Dissolved Solids (188.0 to 1088.0 mg/l), Chloride (47.1 to 170.2 mg/l), Sulphate (10.4 to 186.3 mg/l). The concentrations of other micro and macro nutrients were also at low level i.e. Nitrate (1.01 to 8.10 mg/l), Calcium (30.3 to 156.0 mg/l), Magnesium (17.32 to 76.70 mg/l) and Iron (0.04 to 0.93 mg/l). The fluoride (0.06 to 1.48 mg/l) concentration is at optimum level which prevents dental health problems of the consumers.

Soil Quality

During the baseline study, the Soil quality was studied by collecting 10 soil samples. The pH of the soil samples varied from 7.46 to 8.07. The texture of the soil samples majorly consists of Silt clay and Silty loam. The soil samples majorly exhibit grey, brownish grey and dull reddish-brown color at all the soil sampling locations. The indicator such as organic matter varies from 0.55% to 1.06% and Organic carbon varies from 0.32% to 0.61%. The Water holding capacity varied from 29.35% to 41.17%. Nitrogen ranges from 112.79 to 224.55 kg/ha, Phosphorous ranges from 10.55 to 20.02 kg/ha, Potassium 309.36 to 980.44 kg/ha, Magnesium 488.1 to 925.56 mg/kg, Calcium 3418.73 to 9004.51 mg/kg and Sodium 54.27 to 118.34 mg/kg. The SAR value was observed under the limits at all the sampling locations with 0.17 to 0.33.

LAND USE LAND COVER

The land use pattern of the 10 km study area is predominantly agricultural, covering 27603.30 ha (69.01%), Forest Area 3928.01 ha (9.82%), Plantation/Vegetation: 2179.53 ha (5.45%), Surface Water Bodies 1788.22 ha (4.47%), Scrub Land 1685.88 ha (4.21%), Mine Quarry & Allied Activities 1356.42 ha (3.40%). Settlement 687.87 ha (1.72%), Road 625.18 ha (1.56%), Industries 117.21 ha (0.29 %), Railway Line 19.15 ha (0.05%) and Solar Panel 9.55 ha (0.02%).

1.6 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact Assessment has been carried out and incorporated in the EIA report, considering the impacts of proposed mining project on water resources, air and water quality, noise levels, power consumption, transportation, waste management, flora and fauna, and Environmental Management Plan (EMP) measures.

1.6.1 AMBIENT AIR ENVIRONMENT

Impact: The key air emissions from the mining activities (drilling, blasting, crushing, loading, unloading and transportation) are Particulate Matter, Oxides of Nitrogen (NO₂) and Sulphur dioxide (SO₂). Dust emissions generated during excavation, material handling, and crushing operations increase particulate matter (PM) concentrations in the ambient air, resulting in reduced air quality, respiratory discomfort, decreased visibility, dust deposition on nearby vegetation and structures, and potential health risks to workers and nearby residents.

Prediction of incremental Ground Level Concentrations (GLCs) was carried out using AERMOD View 10.2.1, a U.S. Environmental Protection Agency (US EPA) approved air dispersion model.

A cumulative impact assessment was done due to the proposed limestone mining along with other mines (Greenfield & Expansion) in nearby vicinity to assess a cumulative impact. The assessment considered the incremental contribution from the proposed project along with the impacts from other mines in the vicinity.

The air dispersion modelling was performed using a uniform polar receptor network, considering emissions from area, line, and point sources associated with the proposed mining operations along with other nearby mines. The predicted incremental GLCs and cumulative concentrations were evaluated to assess the likely impact on ambient air quality and to determine compliance with the applicable National Ambient Air Quality Standards (NAAQS). The maximum Ground Level Concentration (GLC) for PM₁₀ is estimated to be 2.47 µg/m³, while the corresponding GLCs for PM_{2.5}, SO₂, and NO₂ are estimated to be 0.99 µg/m³, 1.12 µg/m³, and 1.10 µg/m³, respectively. At all the receptor locations, the resultant concentrations, considering the baseline concentrations plus the incremental concentrations due to the proposed project, are estimated to remain within the prescribed ambient air quality standards.

Mitigation: Appropriate mitigation measures such as drilling machines will be fitted with wet drilling and dust collection systems, while controlled blasting practices will be adopted and secondary blasting avoided by using rock breakers for oversized boulders. Regular water sprinkling on haul roads, benches, working faces, and blasted material will be carried out to suppress dust. Proper maintenance of HEMM, drilling equipment, and PUC-certified vehicles will help reduce particulate and gaseous emissions. Dust control measures such as dry fog systems, flexible curtains, and bag filters will be installed at the proposed crusher facilities. Crushed limestone will be transported through covered tippers and a covered conveyor belt to the nearby DCBL cement plant. Additionally, workers will be provided with appropriate PPE, including dust masks, and greenbelt development around the mine boundary, backfilled areas, and other suitable locations will be undertaken to further mitigate air pollution.

1.6.2 NOISE & VIBRATION

Impact: Noise and vibration generated from excavation, blasting, heavy machinery, DG sets, and dumping operations may adversely affect workers and nearby residents by causing hearing impairment, annoyance, stress, sleep disturbance, and other physiological effects. Operators of heavy equipment may also experience prolonged exposure to whole-body vibration and elevated noise levels.

Noise modelling was carried out using Predictor Noise, considering the cumulative impact of the proposed mines within the 10 km study area. The predicted resultant noise levels at the monitoring locations ranged from 51.8 to 64.9 dB(A), compared to baseline levels of 44.7 to 64.8 dB(A). The maximum incremental noise level was 17.38 dB(A) at the Mine Site, while the contribution at other locations was generally low, ranging from 0.11 to 6.74 dB(A).

Mitigation: Various measures will be undertaken to control noise & vibration. Drilling will be carried out using sharp drill bits to minimize noise. Controlled blasting with proper blast design and suitable explosives will be adopted to reduce noise and ground vibrations. Hydraulic rock breaker will be used instead of secondary blasting. DGMS guideline will be followed strictly for blasting operations to reduce the impact of blasting on nearby habitation. HEMMs equipped with acoustic cabins will be provided for the operators. Regular maintenance, oiling and greasing of HEMMs will be carried out to keep noise levels under control. PPEs like earplugs/earmuffs will be provided to mine workers. Development of green belt/plantation along the mining boundary help in reducing noise level. Regular monitoring of ambient noise and periodic blast-induced ground vibrations will be undertaken to ensure compliance with statutory standards.

1.6.3 WATER ENVIRONMENT

Impact: Mining activities may alter local hydrological conditions and degrade water quality through sediment-laden runoff, disturbance of natural drainage, dust deposition, and improper waste management. These impacts can increase turbidity, affect aquatic habitats, reduce water quality, and pose risks to communities dependent on nearby surface and groundwater resources.

Surface Water: A seasonal nallah originates in the northern part of the mine block and joins the Penganga River. Apart from that the study area includes the Penganga River, Naranda Pond, Vaidarbha River, Amal Nala, Nallah Vagu, Khadakia Nala and Bop Nala.

50 m safety zone will be maintained along the Nallah within the lease as no-mining zone throughout the mine life. Chandrapur Irrigation Department, Water Resources Department, Government of Maharashtra issued No Objection Certificate (NOC) vide letter dated 08.04.2026 with information of the distance of the Penganga River which is at an approximate distance ranging from 40 meters to 617 meters from the block boundary and from 205 meters to 550 meters from UPL as per approved mining plan. As per the approved survey and demarcation map available on the website of Water Resources Department (WRD), Government of Maharashtra, and the issued NOC, no mining is proposed within the high flood level (HFL - 187.50) of the Penganga River. The project will implement all recommendation of the Chandrapur Irrigation Department, Water Resources Department, Government of Maharashtra given in its No Objection Certificate (NOC) for protection/preservation of surface water bodies.

Waste water will not be discharged out of the block boundary. Domestic waste water will be diverted into Septic Tank followed by Soak pit.

Ground Water: In the core zone, groundwater levels range from 8.7 to 24.0 m bgl during pre-monsoon and 8.2 to 22.5 m bgl during post-monsoon season. In the buffer zone, groundwater levels range from 8.7 to 24.7 m bgl during pre-monsoon and 8.2 to 23.4 m bgl during post-monsoon season. The proposed working depth during the plan period is limited to 17 m (198m AMSL), therefore groundwater intersection is not anticipated during the operational phase. However, at the conceptual

stage, mining will reach an ultimate depth of 92 m bgl (120m AMSL), and groundwater intersection may occur.

Total water requirement of the project is estimated 55 KLD, which will be met through groundwater augmented with harvested Rainwater.

The mineral limestone and associated rocks do not contain any toxic substances so that there will not be any adverse impact on ground water quality. Groundwater quality and water levels will be monitored regularly to ensure that mining operations do not have any adverse impact on groundwater resources.

Rain Water Harvesting: one RWH pond will be created within the mine block till the mining pit will reaches UPL. It will be an integral part of the storm water management and groundwater recharge system. Once the mine pit reached UPL, it will be used as rainwater collection pond, wherein rainwater will accumulate during the monsoon season.

Garland drains along with retaining walls and settling tanks/sedimentation ponds will be used to collect and manage surface run-off. The collected surface run-off in sedimentation ponds will be discharged after proper settling of suspended sediments in a controlled manner and utilized for non-potable mine requirements excluding domestic use. At conceptual stage, approximately 136 ha of mined-out area will be converted into a water reservoir with significant water storage potential, creating a long-term water resource for the region.

1.6.4 LAND NVIRONMENT

Impact: Mining operations may result in soil erosion, altered drainage patterns, and increased sedimentation due to land disturbance and vegetation clearance. Excavation near existing utilities may pose safety risks, and any required utility diversion may lead to additional vegetation loss and localized habitat disturbance. Noise modelling was carried out using Predictor Noise software to assess the cumulative noise impact of the proposed mining activities along with nearby mine/industry within the 10 km study area and to formulate appropriate mitigation measures for minimizing the noise impact.

Mitigation: As per the approved Mining Plan, a total of 186 ha will be excavated during the life of the mine. Out of this, 50 ha will be backfilled and reclaimed through plantation, while 136 ha will ultimately be converted into a water reservoir. Of the reclaimed area, about 15.2 ha will be developed under Miyawaki Plantation. An additional 5.12 ha of bench plantation will be developed around the water reservoir. At conceptual stage, greenbelt and plantation will cover approximately 75.62 ha, comprising 50 ha on backfilled land, 8.86 ha along the statutory 7.5 m safety barrier, 6.14 ha along roads, crusher area and nallah safety zone, 5.0 ha over stabilized waste dumps, 0.5 ha under utility areas and 5.12 ha under bench plantation. The post-mining land use plan will significantly enhance ecological value through creation of water bodies, greenbelt development and long-term environmental restoration. Species selection for green belt will have greater ecological value and good utility value to local population. Local Species suitable to the climatic zone and soil type will be selected with consultation of local forest department. Density of plantation would be 2500 saplings/ha. Survival will be maintained by more than 90%.

Budget allocated for greenbelt/plantation till the end of life of mine is Rs. 302.1 Lakh and for Miyawaki Plantation is 152 Lakh. Thus, total proposed budget is 454.1 Lakh (~4.541 Crore) which will be spent in phased manner as per mine progression.

1.7 POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME

Table - 4
Post Project Monitoring Programme

S. No.	Description	Frequency of Monitoring
1.	Micro-Meteorological Data	Hourly
2.	Ambient Air Quality	Online CAAQMS & Manual as per CPCB Guideline
3.	Ground Water Quality & Level	Quarterly
4.	Surface Water Quality & Level	Quarterly
5.	Noise Level Monitoring	Monthly
6.	Ground Vibration Monitoring	On every blast
7.	Soil Monitoring	Quarterly Yearly
8.	Fugitive Emissions Monitoring	Monthly
9.	Medical Checkup of employees	3 to 5 Year Interval ➤ Age of workers <40 years: After every 5 years ➤ Age of workers >40 years: Annually
10.	Socio-Economic Environment	Once in a Year
11.	Digital Mapping/ Drone survey of block area	Once in 3 years/ as per IBM guidelines

1.8 ADDITIONAL STUDIES

Additional Studies including the Hydro-Geological Study, Biological Study, SIA & Resettlement & Rehabilitation (R&R) Plan and Risk Assessment & Disaster Management Plan have been carried out in accordance with the Terms of Reference (ToR) issued by the Ministry vide F. No. IA-J-11015/4/2026-IA-II(NCM), TOR Identification No. TO26A0000MH5429352N dated 18.05.2026. The findings and recommendations of these studies have been duly incorporated in the EIA/EMP Report.

1.8.1 PUBLIC HEARING

As per the provisions of the EIA Notification, 2006, a Public Hearing will be conducted under the supervision of the State Pollution Control Board (SPCB) and the District Administration. The concerns, suggestions, and issues raised by local stakeholders during the public consultation process will be carefully considered and addressed through an action plan, in accordance with MoEF&CC Office Memorandum dated 30.09.2020 and 20.10.2020 and will be submitted as part of the Final EIA/EMP Report following completion of the Public Hearing process covered in EIA/EMP Report as per the Terms of References issued vide F. No. IA-J-11015/4/2026-IA-II(NCM), dated 18.05.2026.

1.8.2 HYDRO-GEOLOGICAL STUDY

The hydrogeological and rainwater harvesting assessment has been conducted during winter season (Dec., 2025 to Feb., 2026) for the proposed Wanoja Limestone Block. As per GEC calculations, the stage of groundwater extraction is 27%, and the study area located in Korpana Block which falls under the Safe category. Hydrogeological investigations confirm that the proposed mining operations during the approved mine plan period will remain above the groundwater table, and therefore no groundwater seepage into the mine pit or significant impact on the regional groundwater regime is anticipated. However, Ground water will be intersected during the conceptual stage.

Permission for water intersection will be obtained from Central Ground Water Authority before such intersection. To mitigate impact of ground water intersection, various measures will be implemented.

The mine seepage from working faces will be collected in sumps and water will be pumped for its usage in mine and surplus water will be supplied to nearby Villagers. The project incorporates comprehensive water conservation, rainwater harvesting, and groundwater recharge measures, including utilization of mine pit rainwater, settling ponds, recharge structures, garland drains, and retaining walls. The mineral limestone and associated rocks do not contain any toxic substances so that there will not be any adverse impact on ground water quality.

With the implementation of the proposed mitigation and monitoring measures, the project is not expected to cause any significant impact on surface water or groundwater resources and will contribute positively to responsible water management in the region.

1.8.3 BIOLOGICAL ENVIRONMENT

A primary field survey was conducted within the 10 km study area to assess the existing floral and faunal diversity. No National Park, Wildlife Sanctuary, Biosphere Reserve, Wildlife Corridor, Tiger Reserve, or Elephant Reserve exists within the study area. One Reserve Forest (Compartment No. 190-notified on 11 July 2017) is located 0.2 km distance in South direction (Boundary marked on PARIVESH, not available on SOI Toposheet). Apart from this Pardi RF, Junoni RF, Manikgarh RF, Kanargaon RF and Reserved Forest are also found within 10 km radius.

The survey conducted also focuses on describing the terrestrial and aquatic flora and fauna, with particular emphasis on identifying and studying Rare, Endangered and Threatened species in the 10 km study area. Floral species were observed within the 10 km study area; are trees, shrubs & herbs, grasses, bamboo, Climbers etc. No endemic floral species were recorded during the primary survey. However, one Endangered species (*Tectona grandis*) and one Vulnerable species (*Dalbergia latifolia*) were documented as per IUCN classification.

The faunal diversity recorded within the 10 km study area comprising the faunal species are mammals, reptiles, amphibians, avifauna, butterflies and fishes etc. The survey recorded 9 Schedule-I species under the Wildlife (Protection) Act, 1972 (as amended in 2022), comprising 4 mammals, 3 reptiles, and 2 avifaunal species. The List of Flora & Fauna along with Wildlife Conservation Plan and Greenbelt development Plan has been prepared and submitted to the Forest Department, Chandrapur on 15.09.2026 for authentication and approval. The Conservation Plan includes detailed mitigative measures required so as to mitigate the impacts with cost implications.

There are other existing/operating limestone mines and cement Plant of the company in the vicinity of the proposed Wanoja Limestone Mine, namely Sangoda Limestone Mine (ML Area of 154.70 ha) a brownfield project and Zutting Limestone Mine, (Block-A of 27.10 ha and Block-B of 31.42 ha) a greenfield project. These projects are located within the same geographical region as the proposed Wanoja Limestone Block and largely share the common study area, wildlife habitats and ecological features. A coordinated approach to wildlife conservation is considered to **avoid duplication of similar activities and expenditure** under individual projects and, at the same time, enable implementation of conservation measures at a larger landscape scale.

1.8.4 SOCIO-ECONOMIC ENVIRONMENT

The study area has moderate infrastructure and a balanced demographic profile with a sex ratio of 938 females per 1000 males as per Census 2011. The population is divided occupation wise into three

categories, viz., main workers, marginal workers and non-workers. The main workers include cultivators, agricultural labours, those engaged in household industry and other services. The proposed project is expected to generate direct and indirect employment opportunities, improve local livelihoods, and contribute to the socio-economic development of the region through enhanced income generation and infrastructure.

SIA Survey was done in 08 Villages viz. Shindola, Kalmana, Naranda, Kadoli Khurd, Dhirapur, Padhari, Wanoja and Sonarli. Basic needs of these Villages are Employment Generation & Skill Development, Educational Development, Healthcare & Medical Facilities, Drinking Water & Sanitation, Infrastructure Development, Women Empowerment & Welfare etc.

1.8.5 REHABILITATION & RESETTLEMENT ACTION PLAN

Total block area is 313 ha, out of which 257.35 ha is Private Land and 55.65 ha is Govt. Land. Total block area falling in 3 Villages viz. Wanoja, Zutting and Naranda.

As there is no settlement in ML area, hence no physical displacement is involved.

DCBL has considered following options for acquisition of land for its proposed mining project:

Option 1: Acquire land falling in the mining lease area through provisions of LARR Act, 2013.

Option 2: Direct Purchase Mode: It is proposed to purchase the private agriculture Directly through mutual agreement with the land holders at negotiated rates and terms and conditions. Basis of Land Compensation will be in line of the RFCTARR Act 2013 (Right to Fair Compensation, Transparency in land Acquisition and Rehabilitation & Resettlement) or acts /Rules made by of State Govt. under LARR. DCBL will motivate the land owners to accept the total mutually agreed compensation amount in 3 parts, however, the onus of accepting proposed approach lies with the land owners only.

➤ Lumpsum payment of 40% of total agreed compensation through direct bank transfer to the Land owner/s; 40% of total agreed compensation as fixed deposit and; An annuity of 20% of total agreed compensation (as policies like LIC etc.). Any other additional or modification in above mentioned payment terms as mutually agreed between the land owner/s.

Option 3: Securing land by payment of the annual surface compensation under the provision of Sec. 24 of the MMDR Act, 1957 and Rule 51 of The MCR Rules, 2016.

Options may also be evaluated to obtained land on lease/rental directly from the land owners at mutually agreed terms & conditions.

➤ Also, Sec 24 A of the MMDR Act, 1957 which confers right upon Mining Lease holder to enter the land over which Mining Lease has been granted, subject to payment of the annual surface compensation as may be fixed by State Government for the land owners of the ML area. Further regulations to affix the said compensation, is mentioned in Rule 52 of The MCR Rules, 2016. Accordingly, an application will be made to the concerned authority to affix annual surface compensation for the land owners and to enable DCBL to enter the land upon payment of surface compensation as fixed by the State Government and ML will be provided.

DCBL proposes to procure land under Option 3.

Basis of Land Compensation will be in line of the RFCTARR Act 2013 (Right to Fair Compensation, Transparency in land Acquisition and Rehabilitation & Resettlement) or Govt. of Maharashtra/Rules made by Govt. of Maharashtra under LARR.

It is proposed that entire land within the block area shall not be acquired in one go. Land purchase shall be done in phases as per the requirement for mining purpose. In first phase land required for first 10 years of plan period shall be acquired and subsequently extended for next 10 years.

1.8.6 RISK ASSESSMENT & DISASTER MANAGEMENT PLAN

A Hazard Identification and Risk analysis is a systematic way to identify and analyze hazards to determine their scope, impact and the vulnerability of the built environment to such hazards and its purpose is to ensure that there is a formal process for hazard identification, risk assessment and control to effectively manage hazards that may occur within the workplaces. Excessive dust, noise and vibration are the chief health hazards for the miners besides physical hazards.

The objective of disaster management plan for the proposed limestone block is to be in a state of perpetual readiness through training and development to immediately control and arrest any emergency situation so as to avert a full-fledged disaster and the consequence of human and property damage and in the event of a disaster still occurring, to manage the same so that the risk of the damage to life and property is minimized.

1.9 PROJECT BENEFITS

The proposed limestone mining project is envisaged to meet the requirement of limestone for the company's cement manufacturing unit. The project will ensure a reliable and sustainable supply of limestone, thereby supporting the continued and sustained operation of the cement plant. The cement plant has been revived by DCBL through the insolvency resolution process, thereby facilitating the restoration of industrial operations and contributing to the continued employment of existing workers. The proposed limestone mining project will further support the long-term sustainability of the plant and associated employment opportunities, while contributing to the overall socio-economic development of the region.

The project activity will help in meeting the growing demand of cement & hence help in the economic growth of the country. The block will contribute to the State & Central Govt. exchequers by way of mining revenue (Royalty, Premium, DMF, NMET, GST, SGST) with the execution of the project which shall be spent for the betterment of the local community.

The establishment of the proposed mine will create direct and indirect employment opportunities and Preference will be given to local people and Project Affected Families (PAFs), based on their qualification, skill and suitability. In addition to direct employment, the project is expected to generate substantial indirect employment through transportation of minerals and materials, equipment and machinery maintenance, workshops, loading and unloading activities, petty contracts, local shops and other commercial establishments, as well as opportunities for truck owners, drivers and other service providers. These activities will generate additional livelihood opportunities and contribute to strengthening the local rural economy.

With the proposed development in and around the area, there will be supporting facilities/infrastructure eventually leading to the development of the area. The beneficial aspects of the project on the socio-economic environment of the area are in the fields of employment, service, trade, commerce, public utility, literacy, social awareness, health care facilities, recreation etc. The increased economic activity associated with the project will provide opportunities for local

entrepreneurs and small businesses and may contribute to improvement in household income and the overall economic status of the region.

1.10 ENVIRONMENT MANAGEMENT PLAN

Dalmia Cement (Bharat) Ltd. has a full-fledged Environmental Management Cell (EMC) at its existing Cement Plant located nearby the proposed mine. The EMC is responsible for environmental monitoring, implementation of mitigation measures and effective environmental control at the existing plant, and the same EMC will also be authorized to oversee the environmental management requirements of the proposed Limestone Mine. The Environmental Management Cell will be entrusted with the responsibility of ensuring effective implementation of the Environmental Management Plan (EMP), environmental monitoring programme and other environmental safeguards proposed for the mining project. A team of qualified and experienced engineers, supported by skilled technicians, is deployed in the existing EMC for the operation, maintenance, upkeep and regular monitoring of pollution control equipment and environmental management systems to ensure their effective and efficient functioning. The same technical expertise and resources will be utilized for the proposed mining project, as required. The EMC will oversee and implement various environmental management and monitoring activities to ensure effective compliance with the applicable environmental standards, statutory requirements and conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Central Pollution Control Board (CPCB) and Maharashtra State Pollution Control Board (KSPCB), as applicable. The Capital Cost for EMP is Rs. 2.86 Crore and Recurring Cost for EMP is Rs. 0.704 Crore per annum.

1.11 CONCLUSION

The EIA/EMP study has been prepared in compliance with the ToR issued by MoEF&CC in line with EIA Notification, 2006 and its subsequent amendments. Baseline environmental data on land, air, water, noise, biological, and socio-economic aspects were collected through field surveys and secondary sources. Potential environmental impacts have been assessed, and suitable mitigation measures have been proposed through the Environmental Management Plan (EMP).

The proposed project is expected to facilitate the development of supporting infrastructure and amenities in and around the project area, thereby contributing to regional development. The implementation of the project will generate direct and indirect employment opportunities, leading to improved livelihood prospects for local residents. Furthermore, the project is anticipated to stimulate the local economy and promote overall development in sectors such as education, healthcare, skill development, transportation, automobile services, and allied industries. Therefore, the proposed project is expected to contribute significantly to the social, environmental, and economic well-being of the local population and the region as a whole.

