सत्यमेव जयते

File No: J-12011/08/2022-IA-I(R)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **17/07/2026**

To,

Mr. Lalit Parab
M/s. JSW Energy PSP Two Limited
JSW Centre, Bandra Kurla Complex, Bandra East, Mumbai , Bandra East, BHANDARA, MAHARASHTRA, , 400051
bhavail.psp@jsw.in

Subject: **Bhavali Pumped Storage Project (1500 MW) in an area of 238.251 Ha in Village Kalbhonde, Kothale and Jamunde, Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra by M/s JSW Energy PSP Two Limited – Environmental Clearance (EC) – reg.**

Sir/Madam,

This is in reference to your online application No. IA/MH/RIV/481391/2024, submitted on 08/08/2024 to this Ministry for the grant of Environmental Clearance (EC) under the provisions of the EIA Notification, 2006, and its subsequent amendments. The application pertains to the Bhavali Pumped Storage Project (1500 MW) in an area of 238.251 Ha in Village Kalbhonde, Kothale and Jamunde, Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra by M/s JSW Energy PSP Two Limited.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0000MH5155771N
(ii) File No.	J-12011/08/2022-IA-I(R)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(c) River Valley/Irrigation projects
(vi) Sector	River Valley and Hydroelectric Projects
(vii) Name of Project	Bhavali Pumped Storage Project (1500 MW)
(viii) Name of Company/Organization	JSW Energy PSP Two Limited
(ix) Location of Project (District, State)	NASHIK, MAHARASHTRA
(x) Issuing Authority	MoEF&CC

(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. In view of the particulars provided in Para 1 above, the project proposal, including Form-1 (Parts A, B, and C), along with the EIA and EMP Reports, was submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC) for appraisal by the Expert Appraisal Committee (EAC) under the provisions of the EIA Notification 2006 and its subsequent amendments.

4. The above-mentioned proposal was considered by the Expert Appraisal Committee (EAC) in the 24th meeting held on 30.08.2024 to 31.08.2024, 30th meeting held on 30.04.2025 and 32nd meeting held on 29.05.2025. The minutes of the meeting, along with all the project documents, are available on the PARIVESH portal. These documents can be accessed from the PARIVESH portal by scanning the QR Code provided above.

6. The EAC after examining the information submitted and detailed deliberations **recommended** the proposal for grant of prior Environmental Clearance by the Ministry to Bhavali Pumped Storage Project (1500 MW) in an area of 238.251 Ha in Village Kalbhonde, Kothale and Jamunde Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra by M/s JSW Energy PSP Two Limited, under the provisions of EIA Notification, 2006 and as amended with subject to compliance of applicable Standard EC conditions with certain specific environmental safeguard conditions: (Annexure I).

7. The details of the project as per the information submitted by the Project Proponent are enclosed as Annexure (II)

8. The Ministry has examined the proposal in accordance with the provisions of the EIA Notification, 2006, and its subsequent amendments. Based on the recommendations of the Expert Appraisal Committee, Environmental Clearance is hereby granted for the Bhavali Pumped Storage Project (1500 MW) in an area of 238.251 Ha in Village Kalbhonde, Kothale and Jamunde, Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra by M/s JSW Energy PSP Two Limited. This approval is subject to adherence to the specific conditions prescribed for this project, in addition to the standard conditions.

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

12. The Project Proponent is obligated to implement all commitments made in the Environmental Management Plan (EMP), which forms an integral part of this Environmental Clearance (EC).

13. The validity of the Environmental Clearance (EC) extends up to 13 years to the start of production operations or the commissioning of the project. The EC's validity becomes perpetual if production operations commence on or before the specified date. Should the Project Proponent fail to initiate production operations within the EC validity period, an application for an extension must be submitted to the regulatory authority, in accordance with Para 9.0 of the EIA Notification, 2006, as amended.

14. General Instructions:

(a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

(b) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

(c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during perational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(e) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(f) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(g) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(h) PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign " EK Ped Ma ke Naam" (एक पेड़ माँ के नाम (and the details of the same shall be uploaded in the MeriLife portal (https://merilife.nic.in).

16. This issues with the approval of the Competent Authority.

Copy To

1. The The Member Secretary, SPCB/PCC, Kalptaru Point 2nd - 4th Floor Opp. Cine Planet Sion Circle Sion (E), Mumbai, Maharashtra, mpcbparivesh@mpcb.gov.in
2. The The Secretary, Ministry of Power, Shram Shakti Bhawan Rafi Marg New Delhi -110 001, New Delhi, Delhi, secy-power@nic.in
3. The The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
4. The The Monitoring Cell MoEFCC, Compliance & Monitoring Division, Indira Paryavaran Bhawan Jor Bagh Road New Delhi, South, Delhi, moefcc-monitoring@gov.in
5. The The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, mscb.cpcb@nic.in
6. The The Deputy Director General, Regional Office, Deputy Director General Of Forests (C) Ministry Of Environment Forest And Climate Change Integrated Regional Office Ground Floor East Wing New Secretariat Building Civil Lines Nagpur-440001., N/A, N/A, apccfcentral-ngp-mef@gov.in
7. The The Secretary, Ministry of Jal Shakti Department of Water Resources River Development and Ganga Rejuvenation Government of India, Shram Shakti Bhawan Rafi Marg New Delhi – 110001, New Delhi, Delhi, secy-mowr@nic.in

Annexure 1

Specific EC Conditions for (River Valley/irrigation Projects)

1. Socio-economic

S. No	EC Conditions
1.1	Land acquired for the project shall be suitably compensated in accordance with the prevailing guidelines of the state government and provisions under Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
1.2	RO plant shall be installed in the nearby 5 villages and the maintenance shall be done by the project Authorities.
1.3	Solar panel be provided to the families living in rural areas within 10 km radius of project.
1.4	School up to 12^{th} Standard with smart lasses shall be established and managed to provide free quality education for children from project affected villages/Tribal villages.
1.5	50 bed multi-speciality hospital shall be established to cater the need of tribal population/locals. The tribal population within 10 km radius of the project shall be given free of cost medical facility.
1.6	Skill development Centre shall be established within 10 km radius of the project and regular training programmes for development and promotion of traditional art/products of tribal/local population.
1.7	The area is ecologically fragile therefore Project Proponent shall ensure that safety measures as mentioned in the EMP shall be fully implemented.

2. Disaster Management

S. No	EC Conditions
2.1	Disposal of the excavated muck and its filling on the low-lying area with proper measures for the stabilization and greenery to minimize the impacts of the generated construction muck shall be taken up pari passu with construction work.
2.2	Robust monitoring mechanism for muck disposal along with no. of vehicle used in transportation shall be prepared and details of the same shall be submitted to concerned regional office of the Ministry. Tracking devices should be installed on the muck carrying vehicles so as to ensure it is being dumped at designated site/sites.
2.3	Stabilization of muck disposal sites using biological and engineering measures shall be taken up immediately to ensure that muck does not roll down the slopes and does not pollute the natural streams and water bodies in surrounding area. The plantation on muck disposal site with local species for restoration of ecology and environment of the project site area. The stabilization of muck disposal sites shall be carried out in a time bund manner as discussed during EAC meeting.
2.4	Necessary control measures such as water sprinkling arrangements, and construction of paved roads leading to muck disposal sites etc. shall be taken up on priority to arrest fugitive dust at all the construction sites.
2.5	Solid waste generated, especially plastic waste, etc. should not be disposed of as landfill material. It should be treated with scientific approach and recycled. Use of single-use plastics may be discouraged.

3. Environmental Management And Biodiversity Conservation

S. No	EC Conditions
3.1	The Environmental Management Plan (EMP) shall be strictly adhered to as submitted in the EIA/EMP reports. The budgetary provisions for implementation of EMP, shall be fully utilized and not to be diverted to any other purpose. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.
3.2	The contract clause limiting the No. of vehicles to be used during excavation and transportation shall followed scrupulously and the same shall informed to the Ministry.
3.3	Ambient Air Quality Monitoring Stations for real time data to be installed at project site before commencement of the construction, shall be displayed at project site and its report to be submitted to IRO, MoEF&CC.
3.4	No vehicle purchase shall be allowed from funds earmarked for implementation of Wildlife Conservation plan.
3.5	10,000 plants shall be planted around the muck disposal area and the survival of plants shall be submitted with the 6 monthly compliance report.
3.6	Plantation of saplings (1000 nos.) shall be carried out as a part of the tree plantation campaign **"Ek Ped Ma Ke Naam"** and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in).

S. No	EC Conditions
3.7	Implementation status of Watershed development plan shall be submitted in the 6 monthly compliance report to the concerned regional office of the Ministry.

4. Miscellaneous:

S. No	EC Conditions
4.1	After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment. The study shall be undertaken by an independent agency. The study report shall be sent to Ministry and uploaded on company's office website.
4.2	The conditions mentioned in the Western Ghats notification (draft notification no. S.O.3060(E) dated 31.07.2024) for development of hydro-power projects issued by the MOEF&CC shall be complied with.
4.3	Bio-Gas plant shall be installed in the Project affected villages for Utilizing Cattle waste (Cow Dung) into renewable source of fuel.
4.4	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis.
4.5	PP shall procure construction material only from those Organizations having all valid legal/statutory clearances/permissions or necessary permission to be obtained for quarrying construction materials for the project as per the EIA Notification, 2006 and as amended thereof.
4.6	An institutional mechanism to be developed to ensure the preference of jobs to PAFs and also a policy for preferential treatment for award of sundry works to the PAFs and their dependents.
4.7	The compliance of above conditions shall be monitored by IRO, MoEF&CC and regularly site visit once in year. The compliance report of IRO shall be regularly submitted to MoEF&CC.

Standard EC Conditions for (River Valley/Irrigation projects)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State

S. No	EC Conditions
	Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.5	NOC shall be obtained from National Commission of Seismic Design Parameters (NCSDS) of CWC.
1.6	Necessary approval of CEA shall be obtained for those projects having the project cost more than Rs. 1,000 crores.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	Regular monitoring of various environmental parameters viz., Water Quality, Ambient Air Quality and Noise levels as per the CPCB guidelines at designated locations shall be carried out on monthly basis and a detailed database of the same shall be prepared and recorded. This shall be used as a baseline data for post construction EIA / Monitoring purposes.
2.2	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed standards.
2.3	Necessary control measures such as water sprinkling arrangements, etc. bet taken up to arrest fugitive dust at all the construction sites.
2.4	Conjunctive use of surface water to be planned in the project to check water logging as well as to increase crops productivity. The field drains shall be connected with natural drainage system (if applicable).
2.5	Remodelling of existing natural drains (link drains) and connecting them with irrigated land through constructed field drains, collector drains, etc. are to be ensured on priority basis (if applicable).
2.6	Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned as per EIA/EMP report so that once the project is commissioned; cofferdam should not create any adverse impact on water environment including the rock mass and muck used for the Cofferdam.
2.7	As the reservoir will be acting as balancing reservoir and there would be fluctuation of water level during peaking period, efforts be made to reduce impact on aquatic life including impacts during spawning period both at the upstream and downstream of the project.
2.8	Water depth sensors shall be installed at suitable locations to monitor e-flow. Hourly data to be collected and converted to discharge data. The Gauge and Discharge data in the form of Excel Sheet be submitted to the Regional Office, MoEF & CC and to the CWC on weekly basis.
2.9	Mixed irrigation shall be practised and necessary awareness be given to all the farmers and trained

S. No	EC Conditions
	in the use of such systems. Proper crops selection shall be carried out for making irrigation facility more effective (if applicable).
2.10	On Farm Development (OFD) works like landscaping, land levelling, drainage facilities, field irrigation channels and farm roads, etc. should be taken up in phased manner prior to the start of irrigation in the entire command area. The Command Area Development Plan should be strictly implemented as proposed in the EIA/EMP report (if applicable).

3. Noise Monitoring And Prevention

S. No	EC Conditions
3.1	All the equipment likely to generate high noise shall be appropriately enclosed or inbuilt noise enclosures be provided so as to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.
3.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

4. Catchment Area Treatment Plan

S. No	EC Conditions
4.1	Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report shall be implemented in consultation with the State Forest Department and shall be implemented in synchronization with the construction of the project.

5. Waste Management

S. No	EC Conditions
5.1	Muck disposal be carried out only in the approved and earmarked sites. The dumping sites shall be located sufficiently away from the HFL of the river. Efforts be made to reuse the muck for construction and other filling purposes and balanced be disposed of at the designated disposal sites. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.
5.2	Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead be used for various purposes as envisaged in the EIA/EMP reports. Efforts be made to avoid one time use of plastics.

6. Green Belt And Wildlife Management

S. No	EC Conditions
6.1	Based on the recommendation of Cummulative Impact Assessment and Carrying capacity study of

S. No	EC Conditions
	river basin or as per the ToR conditions or minimum 15% of the average flow of four consecutive leanest months, whichever value is higher, shall be released as environmental flow.
6.2	Detailed information on species composition particular to fish species from previous study/literature be inventoried and proper management plan shall be prepared for insitu conservation in the streams, tributaries of river and the main river itself for which adequate budget provision be made and followed strictly.
6.3	Wildlife Conservation Plan approved by the Chief Wildlife Warden shall be implemented in consultation with the local State Forest Department.
6.4	To enrich the habitat of the project site, plantation shall be raised as envisaged in the EIA/EMP report. Plantation to be developed along the periphery of the reservoir in multi-layers with local indigenous species in consultation with the local State Forest Department.
6.5	Compensatory afforestation programme shall be implemented as per the plan approved.
6.6	Fish ladder/pass as envisaged in the EIA/EMP report shall be provided for migration of fishes. Regular monitoring of this facility be carried out to ensure it effectiveness.

7. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Resettlement & Rehabilitation plan be implemented in consultation with the State Govt. as approved by the State Govt.
7.2	Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in toto.
7.3	Preventive measures viz. fuming and spraying of mosquito control shall be done in and around the labour colonies, affected villages, stagnated pools, etc. Provisions be made to not to create any stagnated pools to avoid creation of breeding grounds of the vector borne diseases.
7.4	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.5	Labour force to be engaged for construction works shall be examined thoroughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.

8. Risk Mitigation And Disaster Management

S. No	EC Conditions
8.1	Early Warning Telemetric system shall be installed in the upper catchment area of the project for

S. No	EC Conditions
	advance intimation of flood forecast.
8.2	Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
8.3	Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Disaster Management Plan.
8.4	Stabilization of muck disposal sites using biological and engineering measures shall be taken up to ensure that muck does not roll down the slopes and shall be disposed safely and that it does not pollute the natural streams and water bodies in surrounding area. The engineering measures for the muck disposal arrangements be evolved after carrying out required slope stability analysis.
8.5	Catchment area treatment plan shall be prepared and sufficient fund shall be provided for afforestation, rim plantation, pasture development, nursery development.

9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30th September, 2020, as applicable, regarding Corporate Environment Responsibility.
9.2	Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their long time livelihood generation
9.3	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation/violation of the environmental / forest / wildlife norms/conditions and / or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
9.4	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
9.5	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
9.6	Post EIA and SIA be prepared for the project through a third party and evaluation report be submitted to the Ministry after five years of commissioning of the project.
9.7	Multi Disciplinary Committee (MDC) be constituted with experts from Ecology. Forestry, Wildlife,

S. No	EC Conditions
	Sociology. Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project. The monitoring report the Committee shall be uploaded in the website of the Company.
9.8	Formation of Water User Association/Co-operative be made involment of the whole community be ensured for discipline use of available water for irrigation purposes

10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
10.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.6	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
10.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act,

S. No	EC Conditions
	1986.
10.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
10.15	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Annexure-II

Bhavali Pumped Storage Project (1500 MW) in an area of 238.251 Ha in Village Kalbhonde, Kothale and Jamunde, Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra by M/s JSW Energy PSP Two Limited – Environmental Clearance (EC) – reg.

The salient features of the project: -

The Project Proponent and the accredited Consultant M/s. EQMS India Private Limited, made a detailed presentation on the salient features of the project and informed that:

i. The proposal is for environmental clearance to the project for Bhavali Pumped Storage Project (1500MW), located at Village Kalbhonde, Kothale and Jamunde Sub District Shahapur and Igatpuri, District Thane and Nashik, Maharashtra, by M/s JSW Energy PSP Two Ltd.

ii. The project proposal was considered by the Expert Appraisal Committee (Hydro River Valley Sector) in its 27th meeting held during 09.05.2022 and recommended for grant of Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No J-12011/08/2022-IA. I(R) dated 27.6.2022.

iii. The project is listed at S.N.1(c) (i) of the Schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC).

iv. The geographical co-ordinate of the project are –

Upper Reservoir: $19^0$36'31.69" N ,$73^0$35' 45.06" E;
Lower Reservoir: $19^0$34' 56.38" N,73^0 35'10.0" E"

v. The Bhavali Pumped Storage Project envisages creation of an upper reservoir (gross storage:12.35 MCM & live storage: 11.08 MCM) by constructing 962.47m long dam comprising of 822.47 m long Geomembrane faced rockfill dam (GRFD) with maximum height of 48.64m from foundation, 60m long and 61m height ungated spillway with 4 bays of 12.5m each; 4 blocks of 20m length each non-overflow section of maximum height of 49.57m from foundation, two each on either side of spillway. 80m long saddle dam (maximum height 10m from foundation) to reduce backwater to enter ESZ area. The lower reservoir (gross storage:13.26MCM; live storage:11.71MCM) shall be created by constructing concrete gravity dam 365.5m long at top with maximum height of 48.15m

from foundation and 104 m long ,74m high (from foundation) ungated spillway with 8 bays of 10.5m each. Diffuser type Intake structure with 3 intakes (25.5mx10.5m) of 42.44m length shall be provided. The water conductor system shall comprise of 67.96 m long three intake tunnels of 7m diameter each with design discharge of 131.74cumec each. 5.1m diameter, followed Steel lined pressure shaft 3 nos. of independent, 5.1m diameter with length varying from 1568.09m to 1594.89m, six 3.8m diameter branch pressure shaft after first bifurcation of design discharge 65.96cumec each; two 2.9m diameter 46.83m long steel lined branch pressure shaft after second bifurcation of design discharge 32.98cumec each. Underground powerhouse (167mx22mx52.9m) housed with 7 No's. Francis vertical shaft reversible pump-turbine (5 X 250MW & 2 X 125 MW) discharging into circular draft tube 5.20 m and 4.0m diameter for large and small unit; two 4m diameter concrete lined branch tail race tunnel for 32.98cumec discharge after 3rd bifurcation; six 5.2meter diameter concrete lined branch tail race tunnel for 65.78 cumec discharge after 4th bifurcation; followed by three 7m diameter main tail race tunnel with length varying from 621.17m to 646.57m,each discharging 131.74cumec, 105m long trapezoidal tail race pool followed by 560m long trapezoidal tail race channel. Annual energy generation by Bhavali PSP in turbine mode is 4049.17 MU whereas annual energy consumed in pump mode is 5110.33 MU.

vi. **Land Requirement:** The total land requirement under the project for upper and lower rock fill dam, reservoir & other works, has been assessed as 238.251 ha of which private land is 31.08 ha, forest land 207.171 ha.

vii. **Demographic details in 10 km radius of project area:** The study area comprises of 40 villages. As per the Census of India 2011, the total households under study area villages are 9190. The total population of villages is 52201 composed of 26398 males and 25803 females with sex ratio of 977. The cast wise composition of the total population made up the Scheduled Cast population is 2234 (4.28%) and Scheduled Tribe population is 32079 (61.45%), which shows that the Scheduled Tribe is the dominant cast in most of the villages in study area. The total literate population is 28605, of which male and female population is 16974 and 11631 respectively. Total literate population is 64.83%, of which male and female literates are 76.40 % are 53.09 % respectively. The total working population is 24293 (46.53%) which comprises of main workers 18849 (36.10%) and marginal workers 5444 (10.43%) while non-workers are 27908 (53.47%). Among main workers, cultivators constitute the highest category (54.3%), followed by cultivators (29.7%) and other workers (15.90%). Among marginal workers agricultural labour constitutes the highest category (50.7%) followed by cultivators (31.9%) and other workers (15.4%).

viii. **Water Requirement:** The total water requirement during construction shall be 1000 kld(Domestic:100kld & Construction 900kld) and shall be met from the surface sources viz., nearby reservoir(s).

ix. **Project Cost**: The estimated project cost is Rs. 8964.02 Crores. Total capital cost earmarked towards environmental pollution control measures and the Recurring cost (operation and maintenance) will be about Rs. 282 lakh per annum.

x. **Project Benefit**: Employment will be 3000 persons as direct. PP proposes to allocate Rs 600 lakh for implementing issues raised during public hearing towards CER (As per Ministry's O.M. F.No.22-65/2017-IA.III, dated 30th September,2020, CER cost is not based on percentage cost of project)

xi. **Environmental Sensitive area**: Kalsubai Harichandragad Wildlife Sanctuary exists within 10 km of project boundary. However, no part of the project lies within Eco-sensitive zone of the Sanctuary. The distance between the project boundary and Kalsubai Harichandragad Wildlife Sanctuary is 2.21 km and 12.5m from ESZ boundary. The distance of the Wildlife Sanctuary has been duly approved by the Chief Wildlife Warden, Nagpur, Maharashtra vide letter no. कक्ष-२३(२)/वज्र/सर्वे/प्र.क्र.१६३/४३६६/२०२४-२५ on dated 29th Nov., 2024.

xii. **MoU / any other clearance/ permission signed with State government:**

(1) The MOU for setting up of the proposed Bhavali Pumped Storage Project (1500MW) has been made on 14th day of September,2021, between the Industries Department, Government of Maharashtra and M/s JSW Neo Energy Ltd.

(2) Govt. of Maharashtra, Water Resources Department, Hydrology and Dam Safety, issued certificate for water availability for project vide No. WFR/Ulhas/894, dated 21.11.2022.

xiii. **Resettlement and rehabilitation:** The total private land required for the project is 31.08 ha ha which is spread over Jamunde village in Tehsil Igatpuri, District Nashik, Maharashtra. There shall be 130 affected families of which 10 shall be displaced families. The acquisition of the land shall be carried out by mutual negotiation in consonance with "RFCTLARRA", 2013. The total cost for implementing Rehabilitation and Resettlement Plan is Rs 1232 lakh comprised of the cost of land acquisition (Rs 854.54 lakh), R&R entitlement (Rs 82.05 lakh) and the cost of Tribal Development Plan (Rs 295 lakh).

xiv. **Scheduled –I species:** Nine mammalian species (Panther, Striped Hyaena, Jackal, Khokad, Jungle cat, Wolf, Chow Singha, Barking deer and Porcupine); 11 avifauna species (White backed Vulture, Slender billed vulture, Sparrow hawk. Brahminy kite, Booted eagle, Crested serpent eagle, Grey junglefowl, Indian peafowl, River tern, Barn owl and Brown

wood) and three herpetofauna species (Indian Cobra, Russell's Viper and Rat snake) were recorded/reported from study area.

A budget of Rs. 326.50 Lakhs/- has been approved by Chief Wildlife Warden, Nagpur, Maharashtra vide letter no. कक्ष-२३(२)/वज्र/सर्वे/प्र.क्र.१६३/४३६६/२०२४-२५ on dated 29th Nov., 2024 for conservation of these Schedule-I species under Wildlife and Biodiversity Management Plan.

xv. **Alternative Studies:**

Based on ground topography and surface geo-mapping for preliminary understanding of the geological set up of the project area, for layout of WCS and powerhouse, two alternatives, viz., Alternate -1 with all components of WCS and powerhouse as underground and the Alternate-2 with surface powerhouse, were studied. Alternate-1 was preferred over Alternate-2 as the latter involved about 135m deep surface excavation for surface powerhouse, which would necessitate intricate supports and slope stability measures, besides posing seepage problem during operation compounded with problems with storm water drainage. The selected alternative has been found to be more suitable considering the minimal overall forest land requirement and minimal requirement of private land and least displacement of people habitations.

xvi. **Baseline Environmental Scenario:**

Period	**1.3.2022 to 30.12.2022 (Three seasons)**
AAQ parameters at 6 locations (minimum & maximum)	PM_{10}: 38.3 to 66.3 µg/m^3
	$PM_{2.5}$: 15.6 to 25.5 µg/m^3
	SO_2: 5.1 to 9.6 µg/m^3
	NOx: 6.5 to 12.8 µg/m^3
Incremental GLC Level	PM_{10}: Max. GLC: 13.83 µg/m^3
	$PM_{2.5}$: Max. GLC: 1.22 µg/m^3
	SO_2: Max. GLC: 1.0 µg/m^3
	NOx: Max. GLC:12.67 µg/m^3
River water samples at 3 locations	pH: 6.97to7.41
	Dissolved Oxygen: 7.3to8.3mg/l
	Total Dissolved Solids: 74to 81mg/l
	Total Hardness (as $CaCO_3$):56 to63mg/l
	Total Alkalinity (as $CaCO_3$):2 to28 mg/l
	Calcium (as Ca):16.8to18.4 mg/l
	Magnesium (as Mg):2.9to4.7 mg/l
	Oil and Grease: <2mg/l
	Sulphate (as SO_4):8.2 to11.6 mg/l
	Nitrate (as Na):2.4 to6.7mg/l

	Chloride (as Cl):30.3 to40.8mg/l
	Iron (as Fe):0.12to 0.3mg/l
	Copper (as Cu): <0.05 mg/l
	Lead (as Pb): <0.01mg/l
	Cadmium (as Cd): <0.003mg/l
	Chromium (as Cr): <0.05mg/l
	Manganese (as Mn): <0.05mg/l
	Arsenic (as As): <0.01mg/l
	Mercury (as Hg): <0.001mg/l
Pond water samples at 3 locations	pH:7.12 to7.56
	Dissolved Oxygen:6.9 to8.4mg/l
	Total Dissolved Solids:82to 107mg/l
	Total Hardness (as $CaCO_3$):59to77mg/l
	Total Alkalinity (as $CaCO_3$):2to27mg/l
	Calcium (as Ca):18.1to21. mg/l
	Magnesium (as Mg):3.3 to5.8mg/l
	Oil and Grease:<2mg/l
	Sulphate (as SO_4):7.4to14.1mg/l
	Nitrate (as Na): 3.1to 4.9mg/l
	Chloride (as Cl):30.9to 41.1 mg/l
	Iron (as Fe):0.05 to 0.21mg/l
	Copper (as Cu): <0.05 mg/l
	Lead (as Pb): <0.01mg/l
	Cadmium (as Cd): <0.003mg/l
	Chromium (as Cr): <0.05mg/l
	Manganese (as Mn): <0.05mg/l
	Arsenic (as As): <0.01mg/l
	Mercury (as Hg): <0.001mg/l
Ground Water samples at 6 locations	pH: 6.58 to 7.86
	Total Dissolved Solids: 216 to 310 mg/l
	Total Hardness (as $CaCO_3$):140 to190mg/l
	Total Alkalinity (as $CaCO_3$): 37 to 89 mg/l
	Calcium (as Ca): 34.1 to 47mg/l
	Magnesium (as Mg): 12.4 to26.9 mg/l
	Oil and Grease: :<2mg/l
	Sulphate (as SO_4):21.3to36.0 mg/l
	Nitrate (as Na):2.8 to 5.1 mg/l
	Chloride (as Cl):57.1to 83 mg/l
	Iron (as Fe) : 0.3 to 0.10mg/l

	Copper (as Cu): <0.05 mg/l
	Lead (as Pb): <0.01mg/l
	Cadmium (as Cd): <0.003mg/l
	Chromium (as Cr): <0.05mg/l
	Manganese (as Mn): <0.05mg/l
	Arsenic (as As): <0.01mg/l
	Mercury (as Hg): <0.001mg/l
Noise levels Leq (Day & Night) at 6 locations	Residential Area Leq. (Day): 46.9 to 53.1 dB (A)
	Residential Area Leq. (Night): 35.7 to 42.8 dB (A)
	Commercial Area Leq. (Day): 59.9 to 62.6 dB (A)
	Commercial Area Leq. (Night): 48.3 to 50.3 dB (A)
Soil Quality at 10 locations	Bulk density:1.28 to 1.49 gm/cc
	pH range: 6.60 to 7.34
	Electrical conductivity (EC);107 to 446 µmhos/cm
	Calcium content:1524 to 3281mg/kg;
	Sodium:154 to 418 mg/kg
	Potassium: 127to 826 mg/kg;
	Nitrogen:153to 849 mg/kg
	Phosphorous: 6.6to 46.9 mg/kg;
	Cation Exchange Capacity (CEC):10.7 to 23.67 meq/100gm
	Magnesium: 242 to 452mg/kg
	Sulphur: 15.4 to 32.8 mg/kg
	Organic Matter: 1.33 % to 5.26%
Flora & Fauna	**Flora:** During primary and secondary study carried out under present project, 88 tree species (37 families), 41 shrub species (23 families), 40 herbs species (26 families) and 14 species of climbers (10 families) and 18 species of grasses (1 family) were recorded from the study area. About 5 economically important and 36 important medicinal/ethnobotanical importance plant species were recorded. One endemic specie was also reported.
	Fauna Sixteen mammalian species were found/reported from secondary sources as well as from the primary survey and consultations. Out of reported species nine species are Schedule-I species and three species and four species belong to Schedule -II and IV respectively. As per IUCN

	criteria (3.1) study area harbors three vulnerable species and one species categorized under threatened category, Forty-nine bird species were observed /reported during the survey of which ten species belong to Schedule-1 of WPA, 1972. Rest of the species belong to either Schedule-II or IV. As per the IUCN Red list two species Vultures are categorized as "Critically Endangered" and all other species are listed as "Least Concern". Two species of amphibians, 4 species of snakes and 4 species of lizards recorded/confirmed in the study area of which Indian Cobra, Russell's Viper and Rat snake belong to Schedule-I of WPA,1972, as amended in December,2022. Eight species of butterflies were recorded/reported of which none belong to Schedule-1 **Aquatic** Twenty-one Phytoplankton species were recorded: Cyanophycean (8), Bacillariophyceae (5), Chlorophyceae (7), Euglenophycin (1). Twelve species of Zooplankton were recorded: Rotifera (5), Cladocera (4), Copepods (2) and Ostracoda (1). Among fish population 10 species belonging to 4 families viz., Cyprinidae (*Catla catla, Labeo rohita, Cirrihinus mrigala, Labeo calbasu, Puntius chola* and *Garra mullya*); Channidae (*Channa gachua&Channa punctatus*);*Bagridae*(*Rita rita)*; Saccobranchidae (*Heteropneustes fossilis*) were identified.

xvii. **Details of Solid waste/ Hazardous waste generation/ Muck and its management**

a) Solid Waste: Municipal Solid Waste (MSW) likely to be generated during construction and operation shall be 38.8 Ton/annum and 7.2ton/annum respectively which shall be managed as per Solid Wastes Management Rules, 2016.

Hazardous waste: It inter alia includes burnt mobile oil and greases (6ton/annum) from vehicles and construction machinery and equipment which shall be handled and disposed through authorised dealer as per Hazardous and other Wastes (Management &Transboundary Movement) Rules,2016.

b) Muck & its management

The total quantity of muck / debris, to be generated due to the project, shall be 64.51 lakh cum, out of which 36.08 lakh cum shall be consumed on the project work leaving 28.43 lakh cum,

which with 42% swell factor shall amount to 40.37 lakh cum shall be disposed at two designated muck disposal sites in an area of 23.122 ha. The muck disposal sites shall be developed from below the ground level by providing retaining wall. After construction of retaining wall, the muck brought in dumpers shall be dumped and manually spread behind the wall. The muck shall be laid with vertical angle not exceeding 28^0 in such a manner that rock mass is properly stacked behind the wall with minimum of voids. The muck pile shall be later covered with geo-Geo-coir textile properly held to the ground by steel wire U-nails and rehabilitated by afforestation of herbs and shrubs.

xviii. **Public Hearing:**

Particular	District Nashik	District Thane
Advertisement for PH with date	Local newspaper "Sakal" (Marathi) and the "Times of India" (English) on 07.12.2023.	Local newspaper" Sakal" (Marathi) and the "Free Press Journal" (English) on 12.01.2024.
Date of Public Hearing	10.01.2024	13.02.2024
Venue	Near to the Upper Reservoir, in village Jamunde, Post Manvede, Tehsil Igatpuri, District Nashik	Near to the Lower Reservoir, in village Kalbhonde, Tehsil Shahpur, District Thane.
Chaired by	Mr. Ravindra Thakre, SDM, Igatpuri, Nashik	Ms. Manisha Jaybhaye Dhule, Additional Collector, Thane
Main issues raised during PH	• Adequate compensation should be granted for acquiring their land •Job opportunities for the youth and unemployed people • Impact to flow of water, wildlife, trees and medicinal plants, agricultural and horticultural crops •Remedial measures for addressing pollution control and wildlife impacts during construction •Addressal of problems like scarcity of water, electricity and lack of roads and education facilities, • Relocation of Temple in Jamunde.	•Job opportunities for the youth and unemployed people •Addressal of problems like scarcity of water, electricity and lack of roads and education facilities •Demanded Company to establish a High School in the village •Repairs of local Deities & clan God •Mobile team of health workers should be provided •Books and clothes should be distributed to village children •Plantation of trees by the company •Job opportunities for the youth and unemployed people

	• Demanded school bus for children •Assistance to the villagers in education, health and employment sector •Livelihood opportunities for the people of the area •CSR grant for developing local villages	

xix. The salient features of the project are as under: -

- **Project Details**

EAC meeting/s	30th EAC meeting for reconsideration of EC proposal
Date of Meeting/s	30th April, 2025
Date of earlier EAC meetings	Earlier, the proposal was appraised in front of the EAC (River Valley & Hydroelectric Project) in its 14th EAC meeting held on 30th Aug., 2024. The proposal was deferred for want of additional details.

- **Project Details**

Name of the Proposal	**"Bhavali Pumped Storage Project"** (1500MW) at village Jamunde, Tehsil Igatpuri, District Nashik and villages Kalbhonde and Kothale, Tehsil Shahpur District Thane, Maharashtra M/s JSW Energy PSP Two Limited
Proposal No.	Proposal No.: IA/MH/RIV/481391/2024; File No. J-12011/08/2022-IA. I(R)
Location (Including Coordinates)	Upper dam: Jamunde (Igatpuri Tehsil-Nasik) Lower dam: Kalbhonde & Kothale (Shahapur Tehsil - Thane) Upper Reservoir: $19^0$36'31.69" N ,$73^0$35' 45.06" E; Lower Reservoir: $19^0$34' 56.38" N,73^0 35'10.0" E

Company's Name	JSW Energy PSP Two Ltd.
CIN no. of Company/user agency	U40108MH2021PLC367136
Accredited Consultant and certificate no.	EQMS India Pvt. Ltd., Karkardooma, Delhi-110092 QCI/NABET/ENV/ACO/2225/0303, Valid up to 23.11.2025.
Project location (Coordinates /River/Reservoir)	Upper Reservoir: $19^0$36'31.69" N ,$73^0$35' 45.06" E; Lower Reservoir: $19^0$34' 56.38" N,73^0 35'10.0" E
Inter- state issue involved	No
Proposed on River/ Reservoir	This is an Off-stream Open Loop Pumped Storage Project
Type of Hydro-electric project	Standalone Pump Storage Project.
Seismic zone	Zone III (Moderate Damage Risk Zone)

- **Category Details**

Category of the project	A
Capacity / Cultural command area (CCA)	1500MW/11600 MWH
Attracts the General Conditions (Yes/No)	No
Additional information (if any)	-

- **ToR/EC Details**

ToR Proposal No.	IA/MH/RIV/265129/2022
EAC meeting date	27th meeting held on 09.05.2022.
ToR Letter No.	J-12011/08/2022-IA. I(R)
ToR grant Date	27th June 2022.
Cost of project	Rs. 8964.02 Crores
Total area of Project	238.251 ha (excluding transmission line ROW)
Height of Dam from Riverbed (EL)	Upper dam: Maximum 48.64m from foundation Lower dam: Maximum 48.15m from foundation
Details of submergence area	169.60 ha
District to provide irrigation facility (if applicable)	Not applicable
Details of tunnels on upper level & lower level and length of canal (if applicable)	Intake tunnel (3 Nos ,7.0 m dia and 67.96 m long)

	3 Nos. of Independent Penstocks (5.2 m dia.)-2 nos. bifurcating into 4 nos. individual units (250 MW each) and 1 no. bifurcating for 3 nos. individual unit 1 no. 250 MW unit & 2 nos. 125MW Units). Length of Penstock/Pressure Shaft: 1741m Main TRT (7.0 m dia.;621.17 to 646.57m long) Branched TRT (4.0 m & 5.20 m diameter Total length of TRT: 713.43 m from Draft tube
No. of affected Village.	3
No. of Affected Families	130
Project Benefits	Project benefits *inter alia* shall include the benefits like (i) Average annual generation of 4044.06 MU of energy with 95% plant availability; (ii) Increased vegetal cover due to implementing of CAT Plan and Green Belt Development Plans (iii) Employment Potential during construction (3000 labour); (iv) Overall development of area by implementing CER initiatives based on the Public hearing issues and Watershed Development Plan.
R&R details	Total Private land to be acquired: 31.08 ha. Displaced families: 10 Project Affected Families:130 Land acquisition cost: Rs 854.54 lakh R&R Grants: Rs 82.05 lakh Tribal Development Plan: Rs 295 lakh Total: Rs 1232 lakh
Catchment area/ Command area	Catchment :11.72 sq.km; Command area: Nil
Types of Waste and quantity of generation during construction/Operation	MSW-38.8 Ton/annum during construction and 7.2 Ton/annum during operation
Material used for blasting and its composition as per DGMS standards	Ammonium Nitrate Fuel Oil (ANFO), a mixture of ammonium nitrate and fuel oil.
E-Flows for the Project	The inflow of Darna River at upper dam site shall be released from bottom outlet throughout the year. The inflow of Chorni

	River at lower dam site shall be released from spillway after first filling of reservoir.
Is Projects earlier studied in Cumulative Impact assessment & Carrying Capacity studies (CIA&CC) for River in which project located. If yes, then c) E-flow with TOR/Recommendation by EAC as per CIA&CC study of River Basin. d) If not the E-Flows maintain criteria for sustaining river ecosystem.	No Not applicable, in case of PSP. Not applicable, in case of PSP
Details on provision of fish pass	Pumping operation can have strong impacts like mortality of fishes through turbine passage, change of habitat etc. During operation phase water shall travel through reversible turbines under high pressure from the column of water above it, conditions for organic species are quite tough. Larger species like fish or water animals cannot survive passing through turbines. The diurnal very high extent of water-level fluctuation of about 26 m in the upper reservoir and 30m in lower reservoir may affect changes in the fish-food fauna and cause mortality of fries and fingerlings. Extreme fluctuations can increase turbidity which is detrimental to egg and fry survival. Therefore, no fisheries management plan is proposed in either of pump storage reservoir.
Project benefit including employment details (no of employee)	Benefits from project already stated at S.N.4 Temporary employment during construction: 1575000 man-days Permanent employment during construction :100 Nos.
Area of Compensatory Afforestation (CA) with tentative no of plantation.	Area proposed for Compensatory afforestation is 245.735 ha. Out of 245.735 ha area, 18750 tall plants (625 tall plants/ ha) will be planted in 30 ha area and remaining 215.735 ha will be developed/ maintained under Crop Investment Programme.

Previous EC details	None, as EC is yet to be granted
EC Compliance Report by R.O, MOEF&CC	Not applicable

- **Electricity Generation Capacity**

Powerhouse Installed Capacity	1500MW
Generation of Electricity Annually	4049.17 MU
No. of Units	5 X 250MW + 2 X 125 MW

- **Muck Management Details:**

No. of proposed disposal area/ (type of land-Forest/Pvt land)	2 (Forest land)
Cross section of proposed muck area, height of muck with slope.	D-1: Area=7.916ha, Height average=12.50m D-2: Area=15.206 ha, Height average=5.5m Slope of muck shall be lesser than 28^0
Distance of muck disposal area(location), from muck generation sources (project area)/River, HFL of proposed muck disposal area.	1.0-2.5 km No river at muck disposal site.
Total Muck Disposal Area	23.122 ha (forest)
Estimate Muck to be generated	Muck to be generated: 64.51 lakh cum Consumed on work: 36.08 lakh cum To be disposed: 28.43 lakh cum
Transportation	By road
Monitoring mechanism for Muck Disposal	The project authorities shall erect a barrier to regulate to and fro movement of traffic from the excavation site. Entry of all vehicles passing the barrier and the information regarding quantities of earth material being transported shall be properly arrayed in a register in a transparent manner and shall be liable to be made public by the project authorities as and when required. Proper e-challan shall be issued.

- **Land Area Breakup:**

Private land	31.08 ha

Forest Land	207.171 ha
Government land	0.00 ha
Submergence area/Reservoir area	168.67 ha
Land required for project components	69.581 ha

- **Presence of Environmentally Sensitive areas in the study area:**

Forest Land/ Protected Area/ Environmental Sensitivity Zone	**Yes/No**	**Details of Certificate/ letter/Remarks**
Reserve Forest/Protected Forest Land.	Yes	-
National Park	No	Kalsubai Harichandragad Wildlife Sanctuary exists within 10 km of project boundary. However, no part of the project lies within Eco-sensitive zone of the Sanctuary. The distance between the project boundary and Kalsubai Harichandragad Wildlife Sanctuary is 2.21 km and 12.5 m from ESZ boundary. The distance of the Wildlife Sanctuary has been duly autheticated by the Chief Wildlife Warden, Nagpur, Maharashtra vide their letter no. कक्ष-२३(२)/वज्र/सर्वे/प्र.क्र.१६३/४३६६/२०२४-२५ on dated 29th Nov., 2024
Wildlife Sanctuary	Yes	
Archaeological sites monuments/historical temples etc	No	-
Additional information (if any)	No	-

- **Court case details:** No court case/litigation is pending.

- **Status of other statutory clearances:**

Particulars	**Letter no. and date**

Status of Stage- I FC	FC Stage-I clearance granted for 207.171 ha. Forest land vide MoEF&CC letter dated 1.06.2026.
Approval of Central Water Commission	Hydrology approved vide letter CWC U.O.:7/Maha-2021-Hyd(S)/107, dated 28.6.2022
Approval of Central Electricity Authority	The power potential Studies have been cleared by Directorate (HPA) CEA, New Delhi, vide letter dated 05.09.2024
Additional detail (If any)	The Concurrence on DPR has been granted by Ministry of Power, Central Electricity Authority, Hydro Project Appraisal Division vide their letter no. CEA-HY-12-24/4/2021-HPA Division I/43296/2024 on dated 24.09.2024
Is FRA (2006) done for FC-I	FRA for Village: Kothale & Kalbhonde, District Thane is completed on 3rd March, 2025 and FRA for District Nashik is under implementation.

- **Details of the EMP & Compensatory Afforestation Scheme:**

S. N.	Plans	Capital EMP Cost after FC Stage – 1 (Rs lakh)
1.	Catchment Area Treatment Plan	250.00
2.	Wildlife and Bio-diversity Management plan	326.50
3.	Resettlement & Rehabilitation Plan	1232.00
4.	Green Belt Development Plan	80.00
5.	Reservoir Rim Treatment Plan	30.00
6.	Fisheries Management Plan	130.00
7.	Muck Management Plan	1410.59
8.	Restoration Plan for Quarry Sites & landscaping	45.00
9.	Disaster Management Plan	26.00
10.	Water, Air and Noise Management Plan	48.00
11.	Public Health Delivery Plan	31.00
12.	Labour Management Plan	42.00
13.	Sanitation & Solid Waste Management Plan	85.00

S. N.	Plans	Capital EMP Cost after FC Stage – 1 (Rs lakh)
14.	Local Area Development Plan	419.00
15.	Environmental Safeguards During Const.	20.00
16.	Energy Conservation Measures	15.00
17.	Environmental Monitoring Plan	16.00
18.	CER Plan for addressing issues raised during public hearing	600.00
19.	Watershed Management	980.00
A. EMP Cost		**5786.09**
B. Compensatory Afforestation Scheme		**3914.35**
Total (A+B)		**9700.35 (Say Rs. 97.00 Cr.)**

*****

Signature Not Verified

Digitally Signed by : Yogendra Pal Singh
Member Secretary, MoEFCC (EC)

Date: 17/07/2026