



भारत सरकार
GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

Regional Office, Ground Floor, East Wing,
New Secretariat Building Civil Lines,
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File No. FP/MH/HYD/153240/2022 / 14776 Date: 14.10.2025

To,

The IGF, Forest Conservation Division,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan, Jor bagh Road, Aliganj, New Delhi- 110003.

Sub: Proposal for seeking prior approval of the Central Government under Section 2(i) & (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of JSW Energy PSP Two Limited for non-forestry use of 243.74 ha of forest land (Reserved Forest, Protected Forest, and Private Forest) for Bhavali Pumped Storage Project (1500 MW) in Thane & Nashik Districts, Maharashtra (Online Proposal No. FP/MH/HYD/153240/2022) - regarding.

Reference: The Forest Conservation Division, Ministry of Environment, Forest and Climate Change, New Delhi, vide letter No. 8-06/2025-FC dated 02.09.2025

Sir,

Please refer to the subject and reference cited above and I am directed to forward the site inspection report on proposed forest area for diversion and the non-forest area identified for CA as sought by the Ministry for kind perusal and further necessary action please;

This issues with the approval of Competent Authority, Regional Office, MoEF & CC, Nagpur.

Encl: As above

Yours faithfully,

(Dayananda.N)

Technical Officer (Forestry)

14/10/25

SITE INSPECTION REPORT

Name of the Proposal:

Proposal for seeking prior approval of the Central Government under Section 2(i) & (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of JSW Energy PSP Two Limited for non-forestry use of 243.74 ha of forest land (Reserved Forest, Protected Forest, and Private Forest) for Bhavali Pumped Storage Project (1500 MW) in Thane & Nashik Districts, Maharashtra (Online Proposal No. FP/MH/HYD/153240/2022) - regarding

Inspection done by:

Shri Dayananda N., Technical Officer, Regional Office, MoEF&CC, Nagpur

Officials from the State Forest Department:

1. Shri Ekanath K. Rongate, RFO, Washala Range, Division - Shahapur, Thane
2. Shri Ajay Chavhan, RFO, Dolkhamb Range, Division - Shahapur, Thane
3. Smt Kanchan Bhusal, RFO, Igatpuri Range, Division - West Nashik, Nashik
4. Shri Avadhut, Surveyor, Division - Chiplun
5. Shri Dinesh Farade, Forester, Washala Range, Division - Shahapur, Thane

Officials from the User Agency:

1. Shri Lalit Parab, DGM - JSW
2. Shri Lahu Jadhav, Manager - JSW

The Forest Conservation Division, Ministry of Environment, Forest and Climate Change, New Delhi, vide letter No. 8-06/2025-FC dated 02.09.2025, requested the Regional Office, Nagpur, to inspect the forest land proposed for diversion,

review sites identified for compensatory afforestation (CA), and submit a detailed report. Accordingly, the Technical Officer, MoEF&CC, RO Nagpur, carried out inspection of the proposed forest area on 17.09.2025 and the non-forest area identified for CA on 18.09.2025, along with officials from the State Forest Department and the User Agency as mentioned above.

(I) Brief note on the project

Project Overview:

The Bhavali Pumped Storage Project (PSP) is a greenfield hydroelectric project designed to provide reliable, renewable, and cost-effective power, contributing to energy security and grid stability, particularly during peak demand periods. The PSP operates by circulating the same volume of water between upper and lower reservoirs during each cycle of pumping and generation.

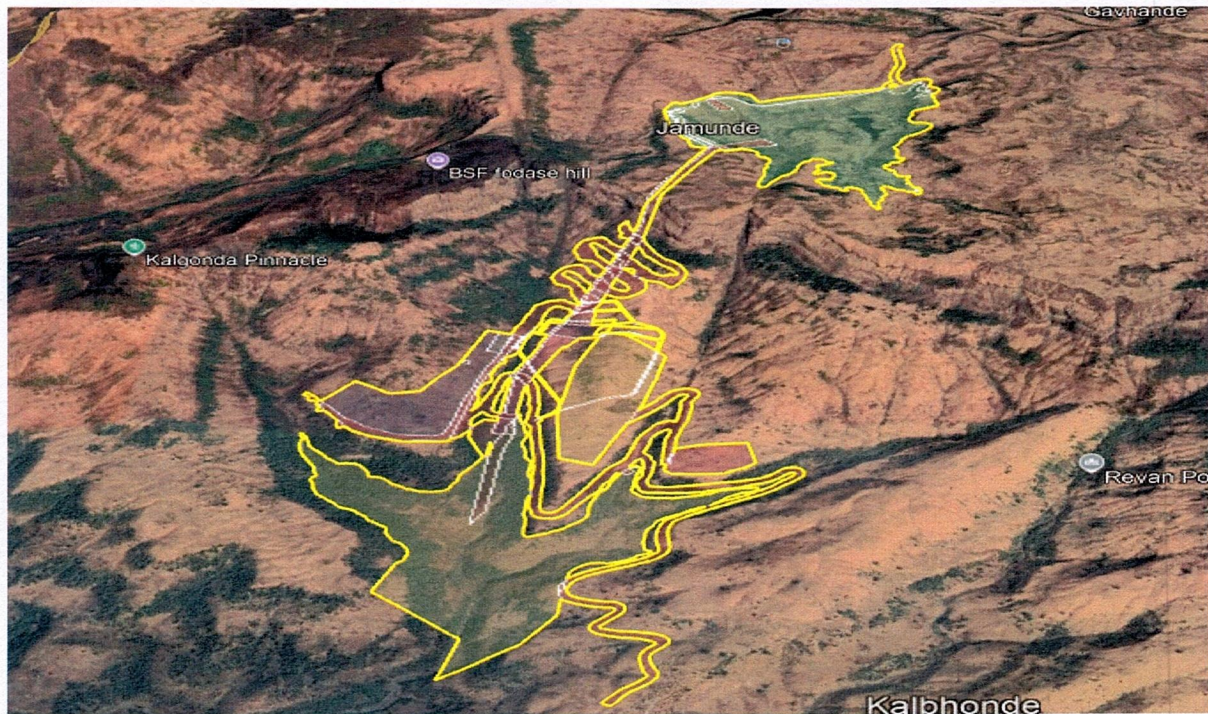
Project Details:

The site was initially identified by the Government of Maharashtra, which signed a Memorandum of Understanding with JSW on 14.09.2021 for facilitating a Hydro Energy Project in Thane & Nashik districts under the existing policy framework.

JSW Energy PSP Two Limited has initiated the project seeking approval under Section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. The proposed PSP will utilise 274.92 ha of land, of which 243.74 ha is forest land and 31.08 ha is private land.

Project Utility and Operation:

The project involves construction of two dams – one in the Igatpuri Range, Nashik District, and the other in the Shahapur Range, Thane District. A hydraulic tunnel will connect the two reservoirs for pumped storage operations. The upper and lower reservoirs will have gross storage capacities of 0.436 TMC and 0.468 TMC, respectively.



Project Significance:

Pumped-storage hydroelectricity enables storage of energy from intermittent sources (solar, wind) or excess electricity from base-load sources (coal, nuclear) for periods of higher demand. Maharashtra, with substantial renewable energy potential, requires PSPs urgently to achieve large-scale renewable energy capacity.

The proposed non-forestry activity will address peak power shortages, stabilise the electric grid, support economic and social development in the region, and contribute to environmental conservation.

(II) Justification for selection of the proposed site

The User Agency stated that PSPs are site-specific, requiring particular topographical and geological conditions, including elevation differences to construct reservoirs of required capacity. The site must be near a water source to store energy. The Government of Maharashtra initially identified the site and entered into an MoU with JSW Group for its development.

No suitable alternate non-forest land is available, making the forest area unavoidable for diversion under VSSA, 1980. The locations of all project components were fixed after detailed surveys and investigations to meet technical feasibility.

(III) Details of the forest area proposed for diversion

(a) Legal status of the forest land proposed for diversion:

SI No	Division	Forest area (ha)	Legal Status
1	Shahapur	97.92	Reserved Forest
2	Shahapur	9.68	Protected Forest
3	Shahapur	73.85	Private Forest
4	West Nashik	62.29	Reserved Forest
Total		243.74	

(b) Component wise breakup of the forest area proposed for diversion:

Sr. No	Project Components	Forest (ha)	Non-Forest (ha)
1	TRT (Underground)	4.2	0
2	Cable & Ventilation	0.084	0
3	Upper Dam & Reservoir	58.42	29.15
4	Lower Dam & Reservoir	81.1	0
5	Working Space	4.8	0
6	Pothhead Yard	0	0

Sr. No	Project Components	Forest (ha)	Non-Forest (ha)
7	Fire Fighting Tank	0	0
8	Saddle Dam	0.11	0
9	ADIT/ MAT (Underground)	0.99	0
10	Approach Road to Upper Dam	0.77	1.93
11	Service Corridor	2.874	0
12	HRT (Underground)	6.68	0
13	Power House (Underground)	2	0
14	Dumping Area & Job Facilities-1	22.3	0
15	Dumping Area & Job Facilities-2	18.61	0
16	Approach Road to Lower Dam	39.162	0
17	TRC	1.64	0
Total		243.74	31.08

(c) Wildlife:

The forest area does not include any National Parks or Sanctuaries. Wild animals reported include leopards, hyenas, wolves, jackals, hares, wild boar, porcupine, and several bird species.

The forest land in Nashik Division falls within the Igatpuri Conservation Reserve, approximately 2.27 km from Kalsubai Harishchandragad Wildlife Sanctuary and 12.5 m from its Eco-Sensitive Zone (ESZ).

Indirect evidence of wildlife (hoof marks, droppings, browsing) was observed during inspection, confirming the reports of State Forest Department officials.

A site-specific Wildlife and Biodiversity Management Plan, approved by CWLW, is required, with a budget of Rs. 326.50 lakhs. Prior approval from the Conservation Reserve Management Committee is mandatory for any non-forestry activity.

(d) Vegetation:

- Shahapur Division: Eco-Value Class-I; density 0.2 over 73.85 ha private forest and 0.6 over 107.6 ha.
- West Nashik Division: Eco-Value Class-I; density 0.5 over 62.29 ha.

Total enumerated trees: 69,100; actual felling required: 63,881. Predominant species include *Pterocarpus marsupium*, *Lagerstroemia parviflora*, and others. Random verification confirmed accuracy.

(e) Effect of removal of trees on the general ecosystem in the area:

Tree felling will result in vegetation loss and partial impact on faunal habitat. Mitigation measures include the Biodiversity Conservation and Wildlife Management Plan, Compensatory Afforestation, and Greenbelt Development Plan.

(f) Details of any protected archaeological/ heritage site/ defence establishment or any other important monument located in the area, if any:

No such sites exist.

(g) Comment as to the reasonability of the extent of the forest land proposed for diversion:

The proposed diversion of 243.74 ha of forest land is the minimum required and unavoidable.

(h) Whether any work in violation of the Act or guidelines issued under the Act has been carried out:

No violations observed; the area is intact.

(i) Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not:

Not applicable.

(j) Reclamation Plan:

Not applicable.

(k) Catchment Area Treatment Plan:

Approved plan submitted with budgetary provision of Rs. 250 lakhs.

(l) Muck Management Plan:

Total muck expected from construction: 6,450,897 cum (45,219 cum soil; 6,405,678 cum rock). Remaining muck will be dumped at designated sites with a financial outlay of Rs. 23.9 crore, including plantation and re-grassing.

(IV) Compensatory afforestation

- Identified non-forest area: 245.735 ha in Choravane Village, Tal. Khed, Dist. Ratnagiri.
- Area has good vegetation; 20 ha are rocky and unsuitable for plantation. Plantation will be done in degraded areas at double the extent, at User Agency's cost, as per VSS Rules, 2023.
- No encroachments or religious/archaeological significance observed.

(m) Detailed comments on whether there are any alternative routes/alignments for locating the project on the non-forest land

No suitable alternate non-forest land exists. All component locations were fixed after proper survey and technical feasibility studies.

(n) Whether land being diverted has any socio-cultural/religious value

Nil

Specific comments

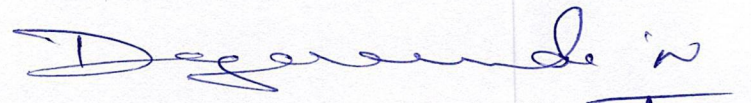
- The project will support renewable energy storage, addressing peak power shortages and stabilising the grid.
- User Agency obtained Power Purchase Agreement, consent from Irrigation Department, and approval from Central Electricity Authority.
- Controlled blasting mitigation measures from CSIR-Central Institute of Mining and Fuel Research will be implemented at the project cost.
- Electricity line for construction will be laid in non-forest areas. Transmission route for power evacuation by MSETCL is yet to be finalised.
- The project contributes to India's energy and climate targets, including 30 GW energy storage by 2030, 50% installed non-fossil fuel capacity by 2030, and net-zero emissions by 2070.

Recommendation

Considering the project's importance, it is recommended for approval under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, subject to the following conditions:

1. Implement the site-specific Wildlife and Biodiversity Management Plan approved by CWLW at the project cost.
2. Obtain prior approval from the Igatpuri Conservation Reserve Management Committee before initiating non-forestry activities.
3. As 20 hectares of the land provided by NFL is a sloping patch and unsuitable for plantation, the CA scheme shall be revised to carry out plantation in degraded forest areas at double the required extent, at the User Agency's cost, in accordance with the VSS Rules, 2023.

4. Dump muck at designated sites with proper gradient; undertake plantation and re-grassing over the dumps at the UA's cost.
5. Implement the Catchment Area Treatment Plan at project cost; State Government to form a monitoring committee.
6. Implement controlled blasting mitigation measures as suggested by CSIR-Central Institute of Mining and Fuel Research; blasting material must not be stored in the forest area.


(Shri Dayananda N.) 14/10/25
Technical Officer (Forestry)
Regional Office, MoEF&CC, Nagpur

Area proposed for diversion





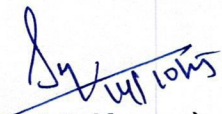
Non forest area identified for Compensatory afforestation



**Recommendations of the DDGF (Central) Regional Office, MoEF&CC,
Nagpur for proposal no. FP/MH/HYD/153240/2022**

I agree with the facts mentioned in the site inspection report. Considering the recommendation of the State Government and the site-specific nature of the project, the proposal is recommended for consideration under the *Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980*, subject to the following specific conditions:

- (i) The State Government shall implement the site-specific Wildlife and Biodiversity Management Plan, as approved by the Chief Wildlife Warden (CWLW), at the cost of the User Agency.
- (ii) The State Government shall obtain prior approval from the Igatpuri Conservation Reserve Management Committee before initiating any non-forestry activities.
- (iii) As 20 hectares of land provided by NFL comprises a sloping patch unsuitable for plantation, the Compensatory Afforestation scheme shall be revised to carry out plantation in degraded forest areas at double the required extent, at the User Agency's cost, in accordance with the VSS Rules, 2023.
- (iv) The State Government shall ensure that muck is dumped only at designated sites with proper gradient, followed by plantation and re-grassing over the dumps, to be undertaken by the User Agency.
- (v) The User Agency shall implement the Catchment Area Treatment Plan at its own cost, and the State Government shall constitute a monitoring committee for its supervision.
- (vi) The State Government shall ensure that controlled blasting mitigation measures, as recommended by the CSIR-Central Institute of Mining and Fuel Research, are implemented by the User Agency, and that blasting materials are not stored within the forest area.
- (vii) Tree felling, wherever necessary, shall be carried out by the User Agency under the strict supervision of the State Forest Department.


(Dr. S. Senthil Kumar)

DDGF (Central), Regional Office,
MoEF&CC, Nagpur