



JSW/PSP-Bhawali/FCLand2025/12

Date: 28.10.2025

To,

The Dy. Conservator of Forest
Shahpur Division
Shahpur, District Thane

Sub :- Bhawali Pumped Storage Project (1500 MW) in Thane & Nashik Districts, Maharashtra proposal for Forest Clearance (Online Proposal No. FP/MH/HYD/153240/2022). Reg: Submission of Replies to Essential Details Sought (EDS).

Ref: Your office letter No. Land-10/FCA/2217/2025- dated 17.10.2025 regarding Essential Details Sought (EDS) for the Forest Clearance application.

Respected Sir,

With reference to the above subject, we wish to inform you that all the observations and points raised in your letter dated 17.10.2025 have been duly addressed. The required documentation including cost-benefit analysis, have been incorporated and uploaded on PARIVESH 1.0 portal for your kind perusal.

It is kindly requested to examine our submission for further processing of our proposal and onward submission.

Thanking you,

Yours faithfully,
For JSW Energy PSP Two Limited

[Lalit Parab]
Authorized Signatory



Following are information asked by the DCF Shahapur and User Agency comments:

S.N.	Queries raised by DCF Shahapur Division	Compliances by User agency.
1.	The observation No. 1 out of the 15 observations raised by MoEF&CC vide letter dated 02.09.2025 stated that the required information was not uploaded properly in Form-A, Part-I, particularly in the Area Statement related to the Dumping Area and Job Facilities.	The component-wise area breakup has been duly reflected in the Area Statement uploaded in Form-A Part I on the PARIVESH portal. Annexure-1 Copy of Form-A, Part-I.
2	In the submitted KML, as per Observation No. 03 of MoEF&CC letter dated 02.09.2025, it was stated that the Dumping Ground and Job Facilities Area have been shown in three parts, resulting in an apparent area difference during verification. It was also instructed to check the KML as per the Area Statement and to provide component-wise colour differentiation. Further, it was mentioned that the total discrepancy of 13.814 ha, being area other than the proposed project components, is not included in the KML file.	The KML file has been updated and re-uploaded showing the exact Dumping Area and Job Facilities area as per the approved layout. In addition, the other 13.814 Ha area is not required for the diversion hence not included in the proposal.
3	The Cost-Benefit Analysis (CBA) needs to be revised according to category-wise change in area.	The Cost-Benefit Analysis has been revised in accordance with the updated as per category-wise forest area. The revised CBA statement has been uploaded along with the necessary justifications and calculations. Annexure-3 Copy of Cost Benefit Analysis.
4	As per the MOEFCC letter dated 02.09.2025 all the query compliances need to be submitted to the Nashik DCF Office by the user agency, so that the DCF, Nashik can send their report at the earliest. This office can process further.	The user agency has submitted the compliances vide letter dated 08.10.2025, and the DCF, Nashik has forwarded the same to the CCF, Nashik. Today, the CCF, Nashik has further forwarded to your office vide Letter NO. Deck-2/Land/C. No.58/2024-25/863/2025-26 dated 28.10.2025 dated to your good office for necessary further processing. Annexure- 4.1- DCF Nashik Letter dated - 17.10.2025 Annexure-4.2- CCF Nashik letter dated- 28.10.2025





महाराष्ट्र शासन

वनविभाग

उप वनसंरक्षक, शहापूर वनविभाग, शहापूर यांचे कार्यालय
शहापूर आसनगांव जुना आग्रा रोड ४२१६०१, शहापूर.ता.पो.मु.,
दुरध्वनी क्र.- ०२५२७- २७२०९६

ईमेल आयडी-dycfshahapur@mahaforest.gov.in/dcfshahapur@gmail.com



क्रमांक - कक्ष-10/FCA/ 2217 /2025-26

दिनांक 17 / 10 / 2025

प्रति,

मे. जेएसडब्ल्यू एनर्जी पीएसपी टु लि.,
जेएसडब्ल्यू सेंटर, बांद्रा कुर्ता कॉम्प्लेक्स,
बांद्रा (पूर्व) मुंबई - 400 051.

विषय:- वनजमिन- ठाणे व नाशिक

मे. जेएसडब्ल्यू एनर्जी पीएसपी टु लि., मुंबई यांनी भावली पंप स्टोरेज प्रोजेक्टचे बांधकाम करण्यासाठी ठाणे व नाशिक जिल्ह्यातील 243.74 हे. वनजमिन वळतीकरणाबाबत.

- संदर्भ:-
1. मे. जेएसडब्ल्यू एनर्जी पीएसपी टु लि., मुंबई यांचेकडील पत्र क्र. JSWNEI/ BHAVALI/FC/--- 2023-24, दिनांक 6/03/2022
 2. या कार्यालयाचे पत्र क्रमांक कक्ष-6(3)/20/जमीन/1390, दिनांक 13/2/2025.
 3. मुख्य वनसंरक्षक, ठाणे यांचेकडील पत्र क्र . कक्ष-10/वंस/CR-80/24-25/13/25-26, दि. 05/05/2024.
 4. अप्पर प्रधान मुख्य वनसंरक्षक व केंद्रस्थ अधिकारी, मरा. नागपूर यांचेकडील पत्र क्र.कक्ष-17/नोडल/एस-1/पीआयडी-153240/ठाणे/357/25-26, दि.19.05.2025.
 5. अपर सचिव, महसूल व वनविभाग, मंत्रालय, मुंबई- 400 032, दि.04.06.2025.
 6. अप्पर प्रधान मुख्य वनसंरक्षक व केंद्रस्थ अधिकारी, मरा. नागपूर यांचेकडील पत्र क्र.कक्ष-17/नोडल/एस-1/पीआयडी-153240/ठाणे/543/25-26, दि.05.06.2025.
 7. मुख्य वनसंरक्षक, ठाणे यांचेकडील पत्र क्र. कक्ष-10/वंस/CR-80/24-25/86/25-26, दि.10/06/2024.
 8. या कार्यालयाचे पत्र क्रमांक कक्ष-6(3)/20/जमीन/911, दिनांक 24/06/2025
 9. आपले कडील पत्र क्र. JSW/PSP-BHAVALISITE /25-26/027, दिनांक 24/06/2025
 10. या कार्यालयाचे पत्र क्रमांक कक्ष-6(3)/20/जमीन/388, दिनांक 02/07/2025.
 11. मुख्य वनसंरक्षक, ठाणे यांचेकडील पत्र क्र. कक्ष-10/वंस/CR-80/24-25/57/25-26, दि.08/07/2025.
 12. अपर सचिव, महसूल व वनविभाग, मंत्रालय, मुंबई- 400 032, दि.04.06.2025 क्र.. FLD1225/CR-101/F-10 dated 05.08.2025.
 13. केंद्र शासन, दिल्ली यांचेकडील दि.02.09.2025 रोजीचे पत्र.
 14. अप्पर प्रधान मुख्य वनसंरक्षक व केंद्रस्थ अधिकारी, मरा. नागपूर यांचेकडील पत्र क्र.कक्ष-17/नोडल/एस-1/पीआयडी-153240/ठाणे/322/25-26, दि.04.09.2025.



15. मुख्य वनसंरक्षक, ठाणे यांचेकडील पत्र क्र. कक्ष-10/वंस/CR-80/24-25/206/25-26, दि. 04/09/2025.
16. या कार्यालयाचे पत्र क्र. कक्ष 13(3)/20/जमीन/1765/2025-26, दि.18.09.2025.
17. आपले कडील पत्र क्र. JSW/PSP-BHAVALISITE /25-26/027, दिनांक 08/10/2025

विषयांकित प्रकरणी मे. जेएसडब्ल्यू एनर्जी पीएसपी टु लि., मुंबई यांनी 1500 MW भावली पंप स्टोरेज प्रोजेक्ट (PSP) करिता आवश्यक असलेल्या ठाणे जिल्ह्यातील शहापूर वनविभागाचे कार्यक्षेत्रातील मौजे कळभोंडे व मौजे कोथळे, ता. शहापूर येथील एकुण 181.45 हे.आर व नाशिक जिल्ह्यातील नाशिक पश्चिम वनविभागाचे कार्यक्षेत्रातील मौजे जामुंडे, ता. इगतपूरी येथील एकुण 94.3 हे.आर असे एकुण एकंदर 275.75 पैकी 243.74 हे.आर वनजमीनीचे वळतीकरणास केंद्र शासनाची मंजूरी मिळणेकामी वन (संवर्धन) अधिनियम, 1980 चे कलम 2 अंतर्गत सुधारीत प्रस्ताव ऑनलाईन www.forest clearance.in वर सादर केलेला असून सदर प्रस्तावाचा सांकेतांक क्रमांक FP/MH/HYD/153240/2022 असा आहे. सदर प्रस्तावाची हार्ड कॉपी या कार्यालयास पुढील कार्यवाहीसाठी सादर केलेली होती.

प्रकरणी अप्पर प्रधान मुख्य वनसंरक्षक, म.रा. नागपूर यांनी सदरचा त्रुटी पुर्तता अहवाल राज्य शासनास तत्त्वतः मंजूरीकामी सादर केला आहे. राज्य शासनाने दि.05.08.2025 रोजीचे पत्रान्वये सदरचा प्रस्ताव तत्त्वतः मंजूरीकामी केंद्र शासनास सादर केला असून केंद्र शासनाने सदर प्रस्तावात 15 मुददयांवर संदर्भ क्र.13 अन्वये पुर्तता अहवाल मागविण्यांत आला आहे. अप्पर प्रधान मुख्य वनसंरक्षक, म.रा. नागपूर यांनी संदर्भ क्र.14 अन्वये सदर पुर्तता अहवाल इंग्रजीमध्ये सादर करणेकामी प्रकल्प यंत्रणेस कळविले असून त्याची एक प्रत या कार्यालयास पृष्ठांकीत करण्यांत आलेली आहे. तसेच मुख्य वनसंरक्षक, ठाणे यांनी आवश्यक कार्यवाहीकामी या कार्यालयास सूचित करण्यांत आले होते. प्रकरणी सदर त्रुटीची पुर्तता करून अहवाल सादर करणेकामी संदर्भ क्र.16 अन्वये या कार्यालयामार्फत आपणांस कळविण्यांत आलेले होते.

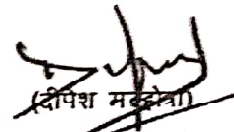
त्या अनुषंगाने प्रस्तुत त्रुटीची पुर्तता करून अहवाल या कार्यालयास दि.08/10/2025 रोजी सादर केला आहे. सदर अहवालाचे अवलोकन केले असता, केंद्र शासनाचे दि.02.09.2025 रोजीचे पत्रानुसार काढण्यांत आलेल्या त्रुटी पैकी मुददा क्र.1 नुसार परिवेश पोर्टल मध्ये फॉर्म अ (भाग 1) मध्ये Area statement नुसार घटकनिहाय प्रस्तावित क्षेत्र upload केलेले नाही. तसेच Dumping Area and Job Facilities या घटकातील क्षेत्र Area Statement मध्ये तफावत दिसून येत आहे.

तसेच मुददा क्र.03 नुसार सुधारीत KML फाईल सादर केली असून Dumping Area and Job Facilities चे क्षेत्र तीन भागात आहेत. त्यामुळे area upload करतांना क्षेत्रात तफावत दिसून येत आहे. तसेच Area Statement नुसार KML मधील क्षेत्र तपासून component wise कलर करणे, अपेक्षित आहे, तसेच प्रस्तावित केलेल्या वनक्षेत्रा व्यतिरिक्त उर्वारीत शिल्लक 13.814 हे. क्षेत्र प्रस्तावात अंतर्भुत नसलेबाबत Properties मध्ये नमूद करणे, आवश्यक आहे.

तसेच प्रस्तावात जोडण्यांत आलेल्या Cost Benefit Analysis प्रमाणपत्रामध्ये Category नुसार क्षेत्रात बदल करून अदयावत प्रमाणपत्र सादर करावे

तरी आपणांस सूचित करण्यांत येते की, केंद्र शासनाचे दि.02.09.2025 रोजीचे पत्रामध्ये उपस्थित केलेल्या त्रुटीची नाशिक वनविभागासंबंधी असलेल्या त्रुटीची पुर्तता पश्चिम नाशिक, वनविभागास देणे, जेणेकरून त्यांचा अहवाल या कार्यालयास लवकरात लवकर प्राप्त होईल व पुढील कार्यवाही योजणे या कार्यालयाकडून शक्य होईल.

सहपत्र- वरीलप्रमाणे.


(दीपेश मध्येना)
उप-वनसंरक्षक

शहापूर वनविभाग, शहापूर

प्रतिलिपी:- मुख्य वनसंरक्षक (प्रा.) ठाणे यांचेकडे माहितीसाठी सविनय सादर.

प्रतिलिपी:- उपवनसंरक्षक, नाशिक पश्चिम यांना माहितीसाठी व उचित कार्यवाहीसाठी सन्नेह आग्रहित.

प्रतिलिपी- वनक्षेत्रपाल डोळखांब व वाशाळा यांना माहिती व कार्यवाहीसाठी रवाना.

2/- वनक्षेत्रपाल डोळखांब व वाशाळा यांनी केंद्र शासनाचे दि.02-09-2025 रोजीचे पत्रातील मुददा क्र. XI ची माहिती तात्काळ सादर करावी.

(FRL, FRL-2 ,FRL-4 मधील बाधित वृक्षांची स्वतंत्र यादी तात्काळ सादर करावी.)

०

FORM - A

Form for seeking prior approval of Central Government under section 2 of the Forest(Conservation) Act,1980 for Diversion of fresh forest area

PART - I
(To be filled up by User Agency)**A. General Details****A-1. Project Details**

- (i). **Proposal No.** : FP/MH/HYD/153240/2022
- (ii). **Name of Project for which Forest Land is required** : Diversion of Forest Land for Bhavali Pumped Storage Project (1500 MW) in Thane & Nasik Districts of Maharashtra State
- (iii). **Short narrative of the proposal and Project/scheme for which the forest land is required** : The JSW Energy PSP Two Limited, Mumbai is intending to construct a Pumped Storage Project (1500 MW) in Thane & Nasik Districts of Maharashtra State in furtherance of MoU signed in between JSW Energy & Government of Maharashtra.
- (iv). **State** : Maharashtra
- (v). **Category of the Proposal** : Hydel
- (vi). **Shape of forest land proposed to be diverted** : Hybrid
- (vii). **Estimated cost of the Project(Rupees in lacs)** : 905809
- (viii). **Area of forest land proposed for diversion(in ha.)**: 243.74
- (ix). **Non-forest land required for this project(in ha.)**: 31.08
- (x). **Total period for which the forest land is proposed to be diverted(in years)**: 99

A-2. Details of User Agency

- (i). **Name** : JSW ENERGY PSP TWO LIMITED
- (ii). **Address1** : JSW Centre, Bandra Kurla Complex, Bandra East, Mumbai
- (iii). **Address2** : NIL
- (iv). **State** : Maharashtra
- (v). **District** : Mumbai City
- (vi). **Pin** : 400051
- (vii). **Landmark** : NIL
- (viii). **Email address** : lalit.parab@jsw.in
- (ix). **Landline Telephone No.** : 0-22-
- (x). **Fax No.** : 0-
- (xi). **Mobile No.** : 9970162724
- (xii). **Website (if any)** : www.jsw.in
- (xiii). **Legal status of User Agency** : Others

A-3. Details of Person Making Application

- (i). **First Name**: Lalit
- (ii). **Middle Name**: NIL
- (iii). **Last Name**: Parab
- (iv). **Gender**: Male
- (v). **Designation**: Asstt. General Manager,
- (vi). **Address 1**: JSW Centre, Bandra Kurla Complex, Bandra East- 51
- (vii). **Address 2**: NIL
- (viii). **State**: Maharashtra
- (ix). **District**: Mumbai City
- (x). **Tehsil**: Kurla
- (xi). **Pin**: 400051
- (xii). **Landmark**: BKC
- (xiii). **Email Address**: bhavali.psp@jsw.in
- (xiv). **Landline Telephone No.**: 0-
- (xv). **Fax No.**: NIL
- (xvi). **Mobile No.**: 9970162724
- (xvii). **Copy of documents in support of the competence/authority of the person making this application to make application on behalf of the User Agency**: 

B. Details of land required for the Project

- B-1. Details of proposal seeking prior approval of Central Government under the Act for diversion of forest land for the Project already submitted in the past

List of proposal submitted in Past							
S.no	Proposal Status.	Proposal No.	Moef File No.	Area Proposed for Diversion(Ha.)	Area Diverted(Ha.)	Date of In-Principle Approval	Date of Final Approval
NIL							

B-2. Details of forest land proposed to be diverted

B-2.1 Details of Divisions involved

Details of Divisions involved			
S.no	Division Name	Forest Land(ha.)	Non-Forest Land(ha.)
1.	Shahapur	181.45	0
2.	West Nashik(Nashik)	62.29	31.08
Total		243.74	31.08

B-2.2 Details of Districts involved

District wise breakup			
S.no	District Name	Forest Land(ha.)	Non-Forest Land(ha.)
1.	Thane	181.45	0
1.	Nashik	62.29	31.08
Total		243.74	31.08

B-2.3 Village wise breakup

Villages wise breakup			
S.no	Village	Forest Land(ha.)	Non-Forest Land(ha.)
1	Kalbhonde	73.85	0
2	Kothale	107.6	0
3	Jamunde	62.29	31.08
Total		243.74	31.08

B-2.4 Component wise breakup

Component wise breakup			
S.no	Component	Forest Land(ha.)	Non-Forest Land(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	Pothead Yard	0	0
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	Approach Road to Lower Dam	39.162	0
15	TRC	1.64	0
16	Dumping Area & Job facilities-1	18.335	0
17	Dumping Area & Job facilities-2	22.575	0
Total		243.74	31.08

C. Maps of forest land proposed to be diverted

Division 1. : West Nashik(Nashik)
(i). Area of forest land proposed to be diverted(in ha.) : 62.29 (ii). Nature of the Project: Hybrid

(a). No. of patches : One

Patch wise details		
Patch No.	Area of Patch(in ha.)	Kml File of PatchesTo view KML file on google the same may be downloaded and then open if in google earth install in your computer.
1.	62.29	 View File

(b). No. of Segments : One

Segment wise details		
Segments	Segment Area(in ha.)	Kml File of Segments (To view KML file on google the same may be downloaded and then open if in google earth install in your computer).
1.	0	 View File

(iii). Copy of Survey of India Toposheet indicating boundary of forest land proposed to be diverted: (iv). Scanned copy of the Geo-referenced map of the forest land proposed to be diverted prepared by using GPS or Total Station: 

Division 2. : Shahapur

(i). Area of forest land proposed to be diverted(in ha.) : 181.45

(ii). Nature of the Project: Hybrid

(a). No. of patches : One

Patch wise details		
Patch No.	Area of Patch(in ha.)	Kml File of PatchesTo view KML file on google the same may be downloaded and then open if in google earth install in your computer.
1.	181.45	 View File

(b). No. of Segments : One

Segment wise details		
Segments	Segment Area(in ha.)	Kml File of Segments (To view KML file on google the same may be downloaded and then open if in google earth install in your computer).
1.	0	 View File

(iii). Copy of Survey of India Toposheet indicating boundary of forest land proposed to be diverted: (iv). Scanned copy of the Geo-referenced map of the forest land proposed to be diverted prepared by using GPS or Total Station: D. Justification for locating the Project in forest land and details of alternatives examined:(i). Copy of note containing justification for locating the Project in forest land: 

(ii). Whether a copy of map indicating location of alternative examine is required to be provided: No

(a). Reason for not providing such map: Project is site specific.

E. Employment likely to be generated

- (i). Whether the Project is likely to generate employment?: Yes
(ii). Permanent/Regular Employment(Number of persons): 750
(iii). Temporary Employment(Number of person-days): 4250

F. Displacement of People due to the Project, if any

(i). Whether Project involves displacement?: No

G. Details of Cost-Benefit analysis for the Project

(i). Whether the Project requires Cost-Benefit analysis?: Yes

(a). Copy of Cost-Benefit analysis: 

H. Status of Environmental Clearance

(i). Whether the Project requires Clearance under the Environment (Protection) Act 1986 ? : Yes

(a). Status of the Environmental Clearance to the Project: EC under process

(ii). Environmental Clearance File No.: J-12011/08/2022-IA.I (R)

I. Status of Wildlife Clearance

(i). Whether the Project or a part thereof is located in any Protected Area or their Eco sensitive zone? : No

J. Applicability of special provisions governing Scheduled Areas

(i). Whether the Project or a part thereof is located in a Scheduled Area? : Yes

K. Status of settlement of rights under the Forest Rights Act, 2006 on the forest land proposed to be diverted

(i). Whether the process for settlement of Rights under the Forest Rights Acts 2006 on the forest land proposed to be diverted has been completed? : Yes

(a). Copy of documentary evidence in support of settlement of rights under the Forest Rights Act, 2006 on the forest land proposed to be diverted: 

L. Details of land identified for Compensatory Afforestation

(i). Whether non-forest or Revenue forest land is required to be provided by User Agency?: Yes

(ii). Whether the area of non-forest land or Revenue forest land required to be provided by User Agency for raising Compensatory Afforestation is less than area of forest land proposed to be diverted ? : No

(iii). No. of districts involved for raising Compensatory Afforestation: 1

(iv). No. of patches: One

District 1. : Ratnagiri
(a). Village: Chorvane
(b). Area(in ha.): 245.735
(c). Copy of KML file of the patch:  View File
(d). Khasra details: 71 to 75, 91 to 98, 101 to 104, 113, 114
(e). Present owner: Others
(f). Copy of ownership proof: 
(g). Copy of Mou/agreement executed between the Present owner and the User Agency: 
(h). Copy of non encumbrance certificate for the forest land: 

(v). Scanned copy of the map of the land identified for creation of Compensatory Afforestation prepared by using GPS or Total Station: 

(vi). Copy of Survey of India Toposheet in 1:50,000 scale indicating location of the land identified for creation of Compensatory Afforestation: 

M. Hydel/Irrigation/Multipurpose Project

(i). Installed power generation capacity of the Project(in MW): 1500

(ii). Total command area of the Project(in ha.): 0

(a). Copy of the approval of competent authority to the Catchment Area Treatment Plan (CAT Plan): 

(b). Copy of the approved CAT plan: 

Additional information Details

Documents		
S.No	Documents	Remarks
1		Area Statement of the project
2		All Villages Map
3		Kalbhone Village Map
4		Jamunde Village Map
5		Kothale Village Map
6		Protected Area Distance Map
7		Vegetation Density Map
8		UA Certificates
9		EDS-2 reply_Annexure 2.1 EAC members site visit Report
10		EDS-2 Reply_Annexure 2.3 Other Hydro project FC approval in Muck site
11		EDS-4 Reply_Annexure 4.1 and 4.2 Approved certificate and certified map alongwith Wildlife Conservation Plan
12		EDS-5 Reply_Annexure 5 DCF Shahpur has mentioned in particulars of the projects (point no.11) dated 02.07.2025 alongwith Guidelines 06.05.2022.
13		EDS-6 Reply_Annexure 6.1_PCCF(WL) letter dated 29.11.2024
14		EDS-6 Reply_Annexure 6.2 APCCF(WL) Mumbai letter to CWLW Nagpur dated 14.11.2024
15		EDS-6 Reply_Annexure 6.4 Revised PCCF WL approval letter 16.09.2025 for WLCP
16		EDS-6 Reply_Annexure 6.5 Certified Map mentioning the project boundary located outside the Wildlife and its ESZ approval letter 16.09.2025 for WLCP
17		EDS-6 Reply_Annexure 6.6 DFO Wildlife Nashik letter to APCCF WL Nagpur
18		EDS-7 Reply_Annexure 7 User agency Undertaking regarding not acquiring of land under Gut no. 37 to 41.
19		EDS-10 Reply_Annexure-10.1_CEA concurrence letter dated 24-09-2024
20		EDS-12 Reply_Annexure-12.1_Excerpt of National Electricity Act,2003
21		EDS-12 Reply_Annexure 12.2_Examination_and_Concurrence_of_DPR_PSP_July2024_Version_3.0
22		EDS-12 Reply_Annexure-12.3_Excerpt of National Dam Safety Act, 2001
23		EDS-14 Reply_Annexure-14.1 Power Purchase Agreement (PPA) executed with the Government of Maharashtra
24		EDS-14 Reply_Annexure-14.2 Approval granted by the Water Resources Department, Government of Maharashtra for Water requirement.
25		EDS-10 Reply_Annexure-10.2_the detailed study for tunnel construction has been carried out by Central Institute of Mining & Fuel Research (CIMFR), CSIR, Bilaspur on 19.05.2025
26		In response to EDS letter issued by DCF Shahpur Dt 18.09.2025 and DCF West Nashik dt. 24.09.2025. The EDS reply is submitted.
27		EDS-2 Reply_Annexure 2.2 Approved Comprehensive Muck Management Plan and undertaking for Dumping area Non utilization for Non forest activity
28		In response to EDS letter issued by DCF Shahpur Dt 17.10.2025 The EDS reply is submitted.

Print

Full title of the Project: Diversion of Forest Land for construction of Bhavali Pumped Storage Project (1500MW) in Thane & Nasik Districts of Maharashtra State
File No.: FP/MIH/11YD/153240/2022
Date of Proposal: 06/03/2022

(Sr. No. 10 of Checklist)

COST BENEFIT ANALYSIS

COST BENEFIT ANALYSIS FOR BHAVALI PUMPED STORAGE PROJECT

Name of Project:

Bhavali Pumped Storage Project (1500 MW), Maharashtra State

Project Proponent:

JSW Energy PSP Two Limited, Mumbai

Area of the Project:

The proposal involves surface as well as underground components. The certain Surface Components have overlaps with other Surface Components. Similarly, few underground Components have overlaps with other Underground Components. The certain Underground Components also have overlaps with the Surface Components. An analysis of an effective area involved in the proposal has been carried out and shown in the table annexed hereto as Annexure- I.

About 275.00 Ha. (Includes 243.74 Ha. Forest Land) in Igatpuri & Shahapur Tehsils of Nasik & Thane Districts, respectively.

Cost of the Project:

Rs. 9058.09 Cr.

Expected Project Life:

50 Years

Computations for Net Present Value (NPV) of Forest Land proposed for diversion:

Sr. No.	Eco- Value Class	Density Class	Area (In Ha.)	Rate of NPV (In Rs.)	NPV (In Rs.)
1	Eco- Class I Tropical Moist Deciduous Forest	Open Forest (OF)	73.850	11, 16, 900.00	8, 24, 83, 065.00
2	Eco- Class I Tropical Moist Deciduous Forest	Dense Forest (DF)	107.600	14, 36, 670.00	15, 45, 85, 692.00
3	Eco- Class I Tropical Moist Deciduous Forest	Dense Forest (DF)	62.290	14, 36, 670.00	8, 94, 90, 174.30
Grand Total			243.740 Say: 243.74		32, 65, 58, 931.30 Say: 32.66 Cr.

COST OF FOREST DIVERSION:

Sr. No.	Parameters	MoEF&CC Guidelines	Statistics for Bhavali PSP	Total Cost (Rs. in Cr.)
1	Ecosystem Services losses due to proposed forest diversion	Ecosystem Services losses due to proposed forest diversion shall be the NPV of the Forest Land being diverted as prescribed by the MoEF&CC	The NPV of the Forest Land proposed to be diverted for the project is: NPV = Rs. 32.66Cr. Ecosystem Services losses = NPV = Rs. 32.66Cr.	32.66
2	Loss of Animal Husbandry productivity, including loss of fodder	To be quantified & expressed in monetary terms or 10% of NPV applicable, whichever is maximum	The NPV of the Forest Land proposed to be diverted for the project is: NPV = Rs. 32.66Cr. Loss of Animal Husbandry productivity, including loss of fodder = 10% of NPV = Rs. 3.266 Cr.	3.266
3	Cost of human re-settlement	To be quantified and expressed in monetary terms as per approved R&R Plan	The proposed project involves construction of upper and lower reservoirs. Based on the studies carried out, the project will involve in acquiring small portion of private land. Detailed socio-economic analysis of the people, property loss likely to be impacted by the construction of the project is planned in DPR stage.	NIL
4	Loss of Public Facilities and Administrative Infrastructure (Road, Buildings, Schools, Dispensaries, Electric Lines, Railway, etc.) on Forest Land, which would require Forest Land if these facilities were diverted due to the project.	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion	The project does not envisage loss of public facilities and administrative infrastructure which would require Forest Land if these facilities were diverted due to the project.	NIL
5	Possession Value of the Forest Land diverted	30% of the Environmental Costs (NPV) due to loss of forests or Circle Rates of adjoining area in the district should be added as a cost component as possession	The NPV of the Forest Land proposed to be diverted for the project is: NPV = Rs. 32.66Cr.	9.798

		value of the Forest Land, whichever is maximum	Possession Value of the Forest Land diverted (PV) is: PV = 30% of NPV = Rs. 9.798 Cr.	
6	Cost of suffering to Oustees.	The Social Cost of rehabilitation of oustees (in addition to the cost likely to be incurred in providing residence, occupation and Social Services as per R&R Plan) be worked out as 1.5 times of what oustees should have earned in two years had he not been shifted.	The project does not envisage displacement of any individual or settlement or rehabilitation of oustees. However, the detailed socio-economic analysis of the people, property loss likely to be impacted by the construction of the project is planned in DPR stage.	NIL
7	Habitat Fragmentation Cost	While the relationship between fragmentation and forest goods & services is complex. For the sake of simplicity, the cost due to fragmentation has been pegged at 50% of NPV applicable as a thumb rule.	The NPV of the Forest Land proposed to be diverted for the project is: NPV = 32.66 Habitat Fragmentation Cost (HFC) = 50% of NPV HFC = Rs. 16.33 Cr.	16.33
8	Compensatory Afforestation and Soil & Moisture Conservation Cost	The actual cost of Compensatory Afforestation and Soil & Moisture Conservation and its maintenance in future at present discounted value.	The actual cost of Compensatory Afforestation and Soil & Moisture Conservation and its maintenance in future at present discounted value is: Rs. 0.0829 Cr. per Ha. = 243.74 x 0.0829 = 20.21 Cr.	20.21
Total				82.264

BENEFITS OF FOREST DIVERSION:

Sr. No.	Parameters	MoEF&CC Guidelines	Statistics for Bhavali PSP	Total Benefits (Rs. in Cr.)
1	Increase in productivity attribute to the specific project	To be quantified & expressed in monetary terms avoiding double counting.	The Bhavali PSP (1500 MW) would contribute planned peak power generation, there would be direct revenue to the State of Maharashtra and the Government of India. - Total energy generation units: 4044.06 MU - Total energy consumption: 5120.53 MU	84550

			• Rate of saleable energy: Rs. 7.98/- per Unit • Rate of pumping energy: Rs. 3.0/- per Unit • Cost of saleable net energy: Rs. 1691 Cr. per Annum	
2	Benefits to economy due to the specific project	The Incremental Economic Benefit in monetary terms due to the activities attributed to the specific project.	Power is among the most critical components of infrastructure development; crucial for the economic growth and welfare of developing nations like India. The existence and development of adequate infrastructure is essential for sustained growth of the economy. Investment in hydel project, which produces the cheapest, cleanest and environment friendly energy, brings in several benefits to Agriculture, Industry, commerce, health, education, environment, etc. sectors. The Incremental Economic Benefits, in monetary terms, due to the activities attributed to this project are hereby worked out on the basis of statistics published by the RBI & World Bank for India for FY 2019-20. The details are furnished below: - Gross Investment Rate of India (GIR)= 27.3% - Growth Rate of India, which is GDP= 8.68% which Therefore, the ICOR = $GIR / GDP = 27.3 / 8.68 = 3.14$ The Increment to Output would be: = Investment/ ICOR = 9050 Cr./ 3.14 = 2882.17 Cr.	2882.17
3	No. of population benefited due to specific project.	As per the detailed Project Report.	The project falls within territorial limits of Kothale, Kalbhonde & Jamunde villages. The all villages having total population of 2819 (2011 Census Data) The Work Profile of these villages are as under: About 1619 workers engaged in Main Work (Employment or Earning more than 6 Months), 429 were cultivators (Marginal activity providing livelihood for less than 6 months-owner or co-owner) while 330 were Agricultural labourer.	2819 + nos.

			The entire population of these villages will be directly & fully benefitted from the extant project. The other surrounding Revenue Villages in the Nasik & Thane District will also have access to the resources and infrastructure facilities developed for the project. The people not only from the State, but also from the country will have privilege to draw the socio- economic benefits from the project and its ancillary activities, during pre-construction, construction, operational and maintenance periods till the validity of O & M life of the project. The benefits considered under this category, though worth millions of Rupees, cannot be expressed in monetary term as they depend on the State/ National Policies and other circumstances, prevailing from time to time. The detailed facts & figures of population likely to be benefitted by the construction of the project are to be worked out at DPR stage.	
4	Economic benefits due to direct and indirect employment due to the project	As per the detailed Project Report.	The all villages having total population of 2819 (2011 Census Data) will be directly & fully benefitted from the extant project. 1. For at least 8 months direct employment: $2819 \times 8 = 22552$ Man-days per Annum $22552 \times 1200 = \text{Rs. } 2,70,62,400.00$. Per Annum. Say Rs. 2.71 Cr. Per Annum 2. The people from the other part of the State/ Country, having special skills, expertise will have privilege to draw the economic benefits from the project and jobs ancillary to it, during pre-construction, construction, operational and maintenance periods till the validity of O & M life of the project.	135.50 + "n" no. of employment benefits.

			The benefits considered under this category, though worth millions of Rupees, cannot be expressed in monetary term as they depend on the State National Policies and other circumstances, prevailing from time to time	
5	Economic benefits due to Compensatory Afforestation	Benefits from such CA accruing over next 50 years monetized and discounted to the present value should be included as benefits of CA. *For benefits of CA, the guidelines of the Ministry for NPV estimation may be consulted.	Forest Land proposed for diversion: 243.74 Ha. The CA will be done on equivalent area i. e. 243.74 Ha. and about 2, 70, 795 trees will be planted. The NPV rate considered for the land is Rs. 11, 16, 900.00 per Ha.	27.22
Total				90413.89

BENEFIT/ COST RATIO:

Total Benefit (Rs. In Cr.)	Total Cost (Rs. In Cr.)	B/C Ratio
90413.89	Cost of Forest Diversion: 82.264 - Standard Project Cost: 9058.09 Total: 9140.354	9.89: 1

Date: 06/02/2025
Place: Mumbai
Office Seal:



(Signature)

(Lalit Parab)
Authorized Signatory
JSW Energy PSP Two Limited, Mumbai



"वृक्षवल्ली आम्हा सोयरे वनचरे"
दुरध्वनी क्रमांक - 0253-2572730
ई-मेल - dycfnashikwest@mahaforest.gov.in



सत्यमेव जयते

महाराष्ट्र शासन, वन विभाग.
उप वनसंरक्षक पश्चिम भाग, नाशिक यांचे कार्यालय.
उंटवाडी वन वसाहत आवार, संभाजी चौक, नाशिक 422002

Letter No. Desk- 3/Land/842/ 2025-26,

Date: 17/10/2025.

To,
The Chief Conservator of Forests (T), Nashik

Subject :- Proposal of JSW Energy PSP Two Ltd. For Diversion of 243.74 ha. Forest Land (Reserved Forest, Protected Forest and Private Forest) For Bhavali Pump Storage Project (1500 MW) In Thane & Nashik District in the State of Maharashtra (Online Proposal NO. FP/MH/HYD/153240/2022).

Reference:- 1. Letter from Government of India, MOEF & CC Dated 02/09/2025
2. Letter from Chief Conservator of Forest office, Desk-2/Land/1488/ Dated 10/08/2025
3. DGM-Project, M/S JSW Energy PSP Two Limited Dated 08/10/2025 (Received 15/10/2025)

This is with reference to the Submission of Replies/Clarifications to EDS issued on 02/Sep/2025 By MOEF&CC Regarding Forest Clearance Proposal of M/s JSW Energy PSP Two Ltd. For Diversion of 243.74 ha. Forest land (comprising Reserved Forest, Protected Forest and Private Forest) under the provisions of the Forest (Conservation) Act, 1980. The M/s JSW Energy PSP Two Ltd., has submitted the compliance report in response of the queries raised, along with necessary documents/undertakings as follows.

Sr. no	Query raised	Compliance	Page no.
1	The component wise breakup provided by the State Govt. vide letter dated 05.08.2025 is different from the component wise breakup uploaded in the part-1 of the application form by the project proponent. The State shall examine the matter and ensure that the correct component wise breakup is uploaded in the portal.	The query is related to Shahapur forest division.	1-9

2	As per component, wise breakup uploaded on the portal an area of 44.9 ha is proposed for Dumping area/job facilities 1&2 and an area of 4.8 ha is for working space, which are non-site-specific activities. The state shall explore and locate such facilities over non forest land.	The query is related to Shahapur forest division.	10-25
3	As per DSS Analysis of the KML files provided by the State Govt., the total software calculated area in the project is 309 Ha., which includes, forest and non-forest land. Further, for an area of 13.814 Ha, the details are not provided along with the KML file. Accordingly, the State Government shall provide the component wise correct KML files for the project area.	The user agency has updated KML file and has been uploaded in Form A (Part-I).	Pen drive
4	The State government has recommended the proposal with condition that User Agency shall obtain wildlife clearance and/or ensure compliance of mitigation measures, if required or suggested by the PCCF (Wildlife). Accordingly, the State Government is requested to submit the comments of the PCCF (Wild Life)/CWLW.	The user agency has submitted that the Wildlife Conservation Plan has been approved by PCCF (WL)/CWLW letter No.2269 dated 17.09.2025 The Project is outside PA/ESZ. The necessary documents attached herewith.	26-77
5	It has been submitted by the DFO Shahapur and West Nasik that recently the Government of Maharashtra has declared Gut. No. 42 of Village Jamunde, Tehsil- Igatpuri, District-Nashik as part of Igatpuri Conservation Reserve as per notification dated 22.11.2022. The state shall intimate whether the requisite conservation reserve management committee has been formed and whether the requisite approvals as applicable have been obtained or not?	The Igatpuri Conservation Reserve has been declared by the State Govt. vide GR No. WLP/06.22/CR-174/F-1. This GR includes 8849.948 Ha. area which comprises of 13 villages. However, the Conservation Reserve Management Committee has not been constituted till date.	-

6	The Harishchandra Gad Wildlife Sanctuary and its ESZ is located 2.21 Kms and only 12.5 meters away respectively from the closest point on the boundary of the project. State Government shall ensure that the proposed area is actually outside the boundary of ESZ. A detailed report in this regard shall be submitted.	The user agency has submitted that the PCCF (WL)/APCCF (WL) confirmed project is 12.5 m outside ESZ after site visit. Certified map enclosed. The necessary documents attached herewith.	78-94
7	DFO West Nashik recommended that in the case of land that were allotted prior to 1980, lying in the project area, the user agency shall not utilize/acquire said land parcel without a separate/additional diversion proposal. However, no details of such areas has been provided. A detailed report shall be submitted in this regard. Accordingly, the State Government shall ensure that entire forest land is included in the proposal and a comprehensive proposal is submitted.	The user agency has submitted that Gut Nos. 37 to 41 at Jamunde village have been excluded from the project area. Undertaking is attached herewith.	95
8	The CCF, Nashik in his recommendations recommended that a Wildlife Management and Mitigation Plan must be prepared and implemented in accordance with the guidelines and approval of the Chief Wildlife Warden (CWW), Maharashtra. State Government is requested to provide comments on the same.	The user agency prepared the Wildlife Conservation Plan for the project was prepared and approved by the Chief Wildlife Warden (CWLW), Maharashtra on 17.09.2025 and same has been uploaded on the Parivesh portal Part 1 The necessary documents attached herewith.	26-77
9	The CCF Nashik further recommends that a scientifically designed Catchment Area Treatment (CAT) Plan shall be implemented to prevent soil erosion, enhance water retention, and promote vegetative regeneration in the catchment area. However, the copy of the plan approved by the competent authority for the entire area has not been submitted.	Catchment Area Treatment (CAT) Plan prepared and approved by APCCF & Nodal Officer, Nagpur on 26.05.2025. The plan has been uploaded in FC application on Parivesh. The necessary documents attached herewith.	96-107
10	The CCF Nashik, has recommended that a detailed study regarding the suitability and safety of tunnel construction must be conducted by a national-level institute of repute, specializing in hydro-geological and tunnel engineering. State Govt. shall provide the details/comments in this regard.	The user agency has submitted that the overall project design has received approval from central agencies. The Geological Survey of India (GSI) and Central Water Commission (CWC) have confirmed the suitability and safety of the tunnels. The Central Electricity Authority (CEA) has	108-135

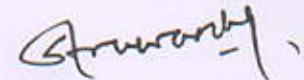
		granted concurrence to the Detailed Project Report (DPR) through its letter dated 20.09.2024. Additionally, as recommended by the Chief Conservator of Forest (CCF), Nashik, a detailed study on tunnel construction was conducted by the Central Institute of Mining & Fuel Research (CIMFR), CSIR, Bilaspur on dated 19.05.2025 to ensure safe execution of tunnels, and the report is attached herewith.																					
11	State Government has mentioned in its covering letter that felling of 69100 trees is involved in the proposal. However, in online Part- II, enumeration of 1,78,677 trees in Shahapur Division and 20,704 trees in West Nashik Division has been submitted. Exact number of trees to be felled needs to be submitted along with tree enumeration list at FRL-2 and FRL-4 meters.	The detailed tree enumeration data has been attached in Part II of the Proposal. Felling of 63881 trees (57646+6235) lying below FRL- 4 m. is necessary for the Project. <table><tr><th>Sr</th><th>Trees enumeration Data</th><th>West Nashik Division</th><th>Shahapur Division</th><th>Total</th></tr><tr><td>1</td><td>Total trees involved (at FRL)</td><td>7,546</td><td>61,554</td><td>69100</td></tr><tr><td>2</td><td>Trees involved at FRL-2</td><td>6,923</td><td>59,477</td><td>66400</td></tr><tr><td>3</td><td>Total trees to be felled will be (at FRL-4)</td><td>6,235</td><td>57,646</td><td>63881</td></tr></table> The necessary documents attached herewith.	Sr	Trees enumeration Data	West Nashik Division	Shahapur Division	Total	1	Total trees involved (at FRL)	7,546	61,554	69100	2	Trees involved at FRL-2	6,923	59,477	66400	3	Total trees to be felled will be (at FRL-4)	6,235	57,646	63881	136-141
Sr	Trees enumeration Data	West Nashik Division	Shahapur Division	Total																			
1	Total trees involved (at FRL)	7,546	61,554	69100																			
2	Trees involved at FRL-2	6,923	59,477	66400																			
3	Total trees to be felled will be (at FRL-4)	6,235	57,646	63881																			
12	Further, the State Government shall provide a copy of approval of the National Dam Safety Authority (NDSA) on the recommendations made by the State Dam Safety Organization (SDSO) and submit the same as applicable.	The user agency has submitted that In accordance with Section 8(1) and 8(2) of the Electricity Act, 2003, any hydro generating project must obtain concurrence from the Central Electricity Authority (CEA) after ensuring compliance with dam design and safety norms. The CEA Guidelines for Formulation of Detailed Project Report (DPR) for Pumped Storage Schemes (2024, Version 3.0) were followed in preparing the DPR for the Bhavali Pumped Storage Project, which has been duly concurred by the CEA through its letter dated 24.09.2024. Dam safety aspects were examined by the Central Water Commission (CWC) and CEA. As per Section 4(x) of the Dam Safety	142-156																				

		Act, 2021, the project dam qualifies as a "specified dam"; hence, separate examination by the National (NDSA) or State Dam Safety Organization (SDSO) is not required at the pre-construction stage and will be addressed during the operational phase. The necessary documents attached herewith.	
13	Since both the dams are to be constructed afresh, the justification for the site specificity of the project is required to be provided. The State shall provide the complete details including KML files, forest and non-forest area involved, trees involved along with the reasons for the rejection of various alternatives.	The user agency has submitted that the project is site-specific, with the chosen location minimizing forest land diversion, avoiding critical wildlife habitats, and ensuring optimal engineering feasibility for dam and facility construction. A justification and summary note for site selection is attached with the EDS reply. The necessary documents attached herewith.	157-164
14	It has been mentioned that project is not located near any river/waterbody. The state shall give a detailed report as to how the requirement of water and electricity will be met.	The user agency has submitted that initial filling from self catchment of lower reservoir; water use cyclically for energy storage and discharge. The water availability certificate (with one time filling requirement of 17.84 Mcum) dated 21/11/2022 is issued to the proposed lower dam of Bhavali Pumped Storage Project, approval granted by the Water Resources Department, Government of Maharashtra. The electricity requirement of the project will be met by the state Discom, Maharashtra State Electricity Distribution Company Limited (MSEDCL), as per the Power Purchase Agreement (PPA) executed with the Government of Maharashtra. The necessary documents attached herewith.	165-182
15	The state shall provide the details of the power evacuation plan and in case additional forest land is required for the same a consolidated proposal may be submitted for the entire forest area.	The user agency has submitted that the project is being implemented under a Power Purchase Agreement (PPA) with the Government of Maharashtra, under which the State will supply pumping power, and the generated power will be returned to the State. The power evacuation plan is under review and will be approved by the State Government based on ongoing load flow analysis. The transmission line alignment will be	-

		designed to primarily utilize non-forest land, involving only minimal forest area if unavoidable. If any additional forest land is required, a separate forest diversion proposal will be submitted following State Government approval. The necessary documents attached herewith.	
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This above information is submitted for further necessary action.

Encl: - (Proposal in 5 copies)



(Siddesh Sawardekar)
Deputy Conservator of Forests,
West Nashik Division

Copy to:- Deputy Conservator of Forest, Shahapur Division, Tal-Thane For information and necessary action.

Copy to:- M/s JSW Energy PSP Two Limited, For information.



Chief Conservator Of Forests (Territorial), Nashik
Old Mumbai Agra Road, Ram Ganesh Gadkari Chauk, Trimbak Naka, Nashik 422 002
Tel.no. 0253-2598545. E-mail- ccfnashik2012@gmail.com

No.Deck-2/Land/C.No.58/2024-25/ 1862 /2025-26 Date :- 28/10/2025

LETTER

To,

**Deputy Conservator of Forests (T)
Shahapur**

Subject :- 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 District in the State of Maharashtra (Online Proposal No.FP/MH/HYD/ 153240/2022) – regarding.

Reference:- 1) Government of India Ministry of Environment, Forests & Climate Change New Delhi's query letter dtd.2-09-2025
2) Deputy Conservator of Forests, West Nashik Division letter No. Desk-3/Land/Campa/842/2025-26, dated 17-10-2025

The Government of India, Ministry of Environment, Forest & Climate Change, Integrated Regional Office (IRO), Nagpur has raised 15 queries vide letter under Reference No. 01

Accordingly, Deputy Conservator of Forests, West Nashik Division has submitted the compliance vide letter under Reference No.2. This office agrees with the same.

2.00 Four sets of queries compliance reports are attached herewith for information and further necessary action.

Encl:- As above 4 sets.


(G.Mallikarjuna)
**Chief Conservator of Forests (T)
Nashik**

Copy submitted to :- Additional Principal Chief Conservator of Forests & Nodal Officer, Maharashtra State, Nagpur for information and necessary action.

Copy forwarded to :- Chief Conservator of Forests (T) Thane for information and necessary action.

Copy forwarded to :- Deputy Conservator of Forests, West Nashik for information and necessary action.

Copy forwarded to :- JSW Energy PSP Two Limited at JSW centre, Bandra Kurla Complex, Bandra (East) Mumbai – 400 051 for information and necessary action.