



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Addl. General Manager
HP POWER CORPORATION LTD

Thana Plaun & Triveni Mahadev HEP's HPPCL, Kotli, Distt. Mandi
(HP), TThana Plaun & Triveni Mahadev HEP's HPPCL, Kotli, Distt. Mandi
(HP), Mandi, Himachal Pradesh-175003

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/HP/RIV/75041/2013 dated 19 May 2018. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | |
| 2. File No. | J-12011/2/2011-IA.I |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | |
| 6. Name of Project | Construction of Thana Plaun 191MW HEP in Destt. Mandi of HP |
| 7. Name of Company/Organization | HP POWER CORPORATION LTD |
| 8. Location of Project | Himachal Pradesh |
| 9. TOR Date | 05 Jun 2014 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 01/08/2025

(e-signed)
Y P Singh
Scientist E
IA - (River Valley and Hydroelectric
Projects sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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F. No. J-12011/12/2011-IA-I
Government of India
Ministry of Environment, Forest & Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhavan
2nd floor, Vayu Wing,
Aliganj, Jor Bagh Road
New Delhi – 110003

Dated: 01st August, 2025

To,

The General Manager

TM &TP HEPs

Himachal Pradesh Power Corporation Limited

Office of the General Manager

Triveni Mahadev (78 MW) & Thana Plaun HEP (191 MW),

Kotli, Distt. Mandi-175003

Email: - gmtpbnhppcl@gmail.com

Sub: Construction of Thana Plaun HEP (191 MW) in an area of 432.79 Ha in Thana Village, Mandi District, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd. - Environmental Clearance (EC) - reg.

Sir,

This has reference to your online application No. IA/HP/RIV/75041/2013 dated 19th May, 2018, submitted to this Ministry for the grant of Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 and its subsequent amendments. The proposal pertains to the Thana Plaun Hydro Electric Project (191 MW) located on the River Beas in Mandi District, Himachal Pradesh, proposed by M/s Himachal Pradesh Power Corporation Limited.

2. Earlier, the proposal was considered by the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric Projects in its 15th EAC Meeting held on 28th June, 2018, 20th EAC meeting held on 27th November, 2018, and 15th EAC Meeting held on 13th September, 2024. The comments and observations of EAC on the project may be seen in the Minutes of the meeting which are available on the web-site of this Ministry.

3. Then, the above-mentioned proposal has been considered by the EAC 32nd meeting held on 29.05.2025. The minutes of the meeting and all the project documents are available on PARIVESH portal.

4. The EAC after examining the information submitted and detailed deliberations retreated its recommendations made during its 20th meeting held on 27.11.2018 wherein, the EAC recommended the proposal for grant of prior Environmental Clearance by the Ministry to Thana Plaun HEP (191 MW) in an area of 432.79 Ha in Thana Village, Mandi District, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd. under the provisions of EIA Notification, 2006 subject to compliance of applicable Standard EC conditions along with certain specific environmental safeguards (given in point no. 14 and 15 of this letter).



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

6. 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 Thana Plaun HEP (191 MW) in an area of 432.79 Ha in Thana Village, Mandi District, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd. This approval is subject to adherence to the specific conditions prescribed for this project, in addition to the standard conditions.

7. 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.

8. 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.

9. 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.

10. 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).

11. 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.

12. 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>)).

13. Specific EC Conditions –

[A] Environmental management and Biodiversity conservation:

- i. 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.
- ii. The contract clause limiting the No. of vehicles used during excavation and transportation shall followed scrupulously and the same shall informed to the ministry.
- iii. 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.
- iv. No vehicle purchase shall be allowed from funds earmarked for implementation of Wildlife Conservation plan. Measures for minimizing the human-animal conflict specially for black bear and leopard be suitably incorporated in the wildlife conservation plan in consultation with State Forest Department.
- v. 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>).
- vi. PP shall adhere with the conditions/recommendations under CIA & CCS of Beas River Basin study conducted by MoEF&CC, GOI.



[B] Disaster Management:

- i. 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.
- ii. Robust monitoring mechanism for muck disposal along with no. of vehicle used in transportation shall be prepared and details of the same shall be submit to concerned regional office of the Ministry.
- iii. 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 shall be done as per instructions of the Forest Department.
- iv. 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.
- v. 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.

[C] Socio-economic:

- i. 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.
- ii. Solar panel be provided to the families living in rural areas within 10 km radius of project with annual maintenance.
- iii. School up to 12th Standard with smart classes shall be established and managed to provide free quality education for children from project affected villages/Tribal villages.
- iv. 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.
- v. 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.
- vi. 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.

[D] Miscellaneous:

- i. 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.
- ii. Bio-Gas plant shall be installed in the Project affected area for Utilizing Cattle waste (Cow Dung) into renewable source of fuel.



- iii. 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.
- iv. 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.
- v. 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.

14. **Standard EC Conditions for River Valley and Hydroelectric projects**

I. Statutory compliance:

- i. 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.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. 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 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)
- iv. 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.
- v. NOC shall be obtained from National Commission of Seismic Design Parameters (NCSDS) of CWC.
- vi. Necessary approval of CEA shall be obtained for those projects having the project cost more than Rs. 1,000 crores.

II. Air quality monitoring and preservation

- i. 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.



- ii. 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.
- iii. Necessary control measures such as water sprinkling arrangements, etc. be taken up to arrest fugitive dust at all the construction sites.

III. Water quality monitoring and preservation

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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
- v. 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.
- vi. Mixed irrigation shall be practised and necessary awareness be given to all the farmers and trained in the use of such systems. Proper crops selection shall be carried out for making irrigation facility more effective.
- vii. 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.

IV. Noise monitoring and prevention

- i. 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.



- ii. 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.

V. Catchment Area Treatment Plan

- i. 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.

VI. Waste management

- i. 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.
- ii. 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.

VII. Green Belt, EMP Cost, Fisheries and Wildlife Management

- i. Based on the recommendation of Cumulative Impact Assessment and Carrying capacity study of 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.
- ii. Detailed information on species composition particular to fish species from previous study/literature be inventorized 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.
- iii. Wildlife Conservation Plan prepared for both core and buffer zones shall be implemented in consultation with the local State Forest Department.
- iv. 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.
- v. Compensatory afforestation programme shall be implemented as per the plan approved.
- vi. 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 its effectiveness.



VIII. Public hearing and Human health issues

- i. Resettlement & Rehabilitation plan be implemented in consultation with the State Govt. as approved by the State Govt.
- ii. Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in toto.
- iii. 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 stagnatedpools to avoid creation of breeding grounds of the vector borne diseases
- iv. 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.
- v. Labour force to be engaged for construction works shall be examined throughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.
- vi. Early Warning Telemetric system shall be installed in the upper catchment area of the project for advance intimation of flood forecast.
- vii. Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Dam Break Analysis

IX. Corporate Environment Responsibility

- i. 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
- ii. 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.
- iii. 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.
- iv. 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.

- v. 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.
- vi. Multi-Disciplinary Committee (MDC) be constituted with experts from Ecology, Forestry, Wildlife, 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 of the Committee shall be uploaded in the website of the Company.
- vii. 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

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by 5 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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.
- vi. 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. vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government. viii. 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.
- vii. 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).



- viii. 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.
- ix. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- x. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xi. 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.
- xii. 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.
- xiii. 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

C. General Condition:

- i. The EC granted to the project is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions, etc. required to be obtained under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project.
- ii. The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.
- iii. No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iv. The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.
- v. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured

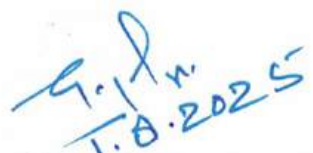


that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

- vi. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vii. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.
- viii. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- ix. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- x. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.
- xi. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xii. A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiii. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xiv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- xv. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of

Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- xvi. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
 - xvii. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
 - xviii. The project authorities 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 and the date of start of the project.
 - xix. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
15. 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.
16. This issues with the approval of the Competent Authority.


T.O. 2025

(Yogendra Pal Singh)
Scientist 'F'

Email id: yogendra78@nic.in
Tele fax: 01120819364

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -110 001.
2. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001.
3. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi - 110 066.

4. The Commissioner and Secretary, Department of Environment, Government of Himachal Pradesh, Himachal Pradesh Secretariat, Shimla-171 002.
5. The Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, 1st & 2nd Floor, CGO Complex, Longwood, Shimla – 171 001.
6. The Principal Chief Conservator of Forests & Head of Forest Force, Himachal Pradesh Forest Department Govt. of Himachal Pradesh, Talland Shimla-171001 Himachal Pradesh.
7. The Chief Wildlife Warden, Government of Himachal Pradesh, Mist Chamber, 1st Floor, Khalini, Shimla - 171 002.
8. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
9. The Chairman, Himachal Pradesh State Pollution Control Board, Paryavaran Bhavan, Phase-III, New Shimla - 171 009.
10. Monitoring Division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
11. Guard File/Record File/Monitoring File/Website of MoEF&CC

G. J. R.

Construction of Thana Plaun HEP (191 MW) in an area of 432.79 Ha in Thana Village, Mandi District, Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd.

The details of the project: -

The details of the project as per the documents submitted by the Project Proponent are given as under:

Background:

- i. The proposed Thana Plaun HEP (191 MW) is a storage scheme and the water conductor system of the project is on the left bank of river Beas. The project envisages the construction of concrete gravity dam across river Beas in the Mandi District of Himachal Pradesh, with a live storage capacity of 44.93 MCM to enhance the peaking benefits during the lean months. The entire catchment comprises mountainous terrain with steep hill slopes and is very thinly populated.
- ii. The Terms of Reference for carrying out the EIA studies and preparation of EMP as per the provisions of Environmental Impact Assessment Notification 2006 and subsequent Notification in 2009 was approved and permission for pre- construction activities was accorded vide letter No. J-12011/12/2011-IA-I dated 29.11.2012 for Thana Plaun HEP with installed capacity of 141 MW of Mandi District of Himachal Pradesh by M/s. HPPCL.
- iii. M/s HPPCL submitted application dated 12.09.2013 for revalidation of approved ToR for the enhanced installed capacity for the project from earlier 141 MW to revised installed capacity of 191 MW which entailed change in layout also. EAC noted that the capacity of the project has been enhanced from 141 MW to 191 MW and it is not a case of merely extension of the validity of TOR. The scope of the project has been changed as the capacity has been substantially revised to 191 MW. Therefore, the project will be reconsidered by the EAC.
- iv. The project proponent submitted Form-1 afresh and the same has been presented before the EAC at its meeting held during 20-21 February, 2014. The EAC recommended for a fresh TOR for Thana-Plaun HEP (191 MW) as per MoEF& CC norms and also recommended to use already collected base line data for the purpose, of EIA/EMP studies subject to the condition that the data should not be older than 3 years and with some additional TOR conditions. The ToR was accorded on 05.06.2014 for a period of 3 years, which was further extended for one year. Hence, the validity of the ToR was up to 04.06.2018. Public Hearing for the proposed project has been conducted by the Himachal Pradesh State Pollution



Control Board, Himachal Pradesh at villages Mahan, Khalanu, Kotli and Kadakalayan, Tarnosh, Kotli and Gram Panchayat Office at Barhi, Dharampur, Mandi during on 22-23 March, 2018.

- v. PP has submitted the application for EC online on 19.05.2018. However, the base line data collected for the EIA / EMP studies is from 1st March 2013 to 31st December, 2013. EAC noted that the data collected for the study is more than three years old and hence could not be considered for appraisal of the project. After detailed deliberation, considering all the facts as presented by the project, EAC in its 15th meeting recommended that PP should collect baseline data for one more season afresh and resubmit the EC application. The following more additional information were also sought:
 - a. Recommendation of E-flow and maintenance of free flow stretches between two HEPs as per the CIA and CC of Beas River Basin studies to be followed.
 - b. Resultant pollution loads of all the environmental parameters be derived again for all the possible pollution sources. Based on the findings, mitigative measures be suggested including allocation of capital budgets for different heads.
- vi. PP has submitted the details sought in the 15th EAC meeting held on 28.06.2018 to the Ministry, accordingly the proposal has been considered by the EAC in 20th EAC meeting held on 27.11.2018 wherein PP has informed to EAC that base line studies were conducted within 10km radius during monsoon season in the months of July- August-September 2018. Project Proponent committed that, E-flows have to be followed as per recommendation under CIA & CCS of Beas River Basin studies under consideration with MoEF&CC, GOI. Provisions finally approved in respect of environmental flow will be adhered by the project authorities of Thana Plaun HEP. PP also presented before the Expert Appraisal Committee impacts of the proposed project on environmental attributes such as water, air, noise, land & biological environment and social-economic environment along with mitigation measures.

15.5.2: The Project Proponent 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 the construction of Thana Plaun (191MW) Hydro Power Project on River Beas located in Mandi, District of Himachal Pradesh by M/s. Himachal Pradesh Power Corporation Ltd.
- ii. The project proposal was considered by the Expert Appraisal Committee (Hydro River Valley Sector) in its 20th meeting held during 27.11.2018 and recommended for grant of Environment Clearance in favour of the Project subject to conditions.



- iii. The geographical co-ordinate of the project are: Latitude (N): 31°49'28.22", Longitude (E): 76°50'20.53".
- iv. **Land requirement:** 431.62 Hectares (406.79 Hectares Forest/Govt. Land and 26.1796 Pvt. Land)
- v. **Project Cost:** The estimated project cost is Rs 1530.13 Crore excluding existing investment of Rs 48.20 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 302.74 Crore and the Recurring cost (operation and maintenance) will be about Rs 15.27 Crore.
- vi. **Project Benefit:** Apart from generating 191 MW of electricity. A work force of about 1000 (skilled/semi skilled/unskilled) will be engaged during the construction period. Road access in the area will be widened as three roads are going to be constructed for project construction and will be later used as public utility. Various socioeconomic developments in the project area are anticipated on establishment of this project. A bridge connecting Tehsil Jogindernagar and Kotli is also to be constructed for public purpose only. Other development works at village level will be taken up from Local Area Development Fund (i.e.@1.5% of Total Project Cost).
- vii. **Environmental Sensitive area:** There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.
- viii. **Resettlement and rehabilitation:** Private Land is being acquired by the "Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013". The total private land area to be acquired under Thana Plaun HEP is approximately 20.1796 hectares. Social Impact Assessment (SIA) study for acquisition of Private land has been completed and approved by GoHP. As per 'Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013', the project specific R&R Plan will be prepared during the process of land acquisition. Notification under Section 11(1) of RFCTLARR Act, 2013 has been published in the Gazette on dated 20.12.2023. At present proceedings under Section 16 are underway. The R&R Scheme will be notified under Section 19(1) of RFCTLARR Act, 2013, shortly.
- ix. **Scheduled-I species:**
Mammal - *Canis aureus*

Birds - *Gyps himalayensis*, *Accipiter badius*, and *Aquila chrysaetos*

Reptile - *Varanus bengalensis*

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x. **Alternative Studies:** The alternatives studied have been provided in Chapter-2 of EIA submitted to MoEF&CC.

xi. **Baseline Environmental Scenario:**

S N	Environ mental Compone nt	Paramete r	Previous Scenario (winter 2013-14)				Current Scenario (winter 2024-25)			
			S.N.	Sub- Parameter	Range (µg /m³)	Limit	S.N.	Sub- Parameter	Range (µg /m³)	Limit
1	Physical Environ ment	Air Quality	1	SPM	29-50	200	1	SPM	38-59	200
			2	RPM	14-23	100	2	RPM	22-35	100
			3	SO ₂	BDL-7.1	80	3	SO ₂	5-13	80
			4*	NO ₂	7.5-16	80	4	NO ₂	6-24	80
			● Overall air pollutant (RPM, SPM, SO ₂ and NO ₂) concentration is within the permissible limit of National Ambient Air Quality Standards.				● Overall air pollutant (RPM, SPM, SO ₂ and NO ₂) concentration is within the permissible limit of National Ambient Air Quality Standards; however, there is a slight increment in their concentration in the present scenario.			
			Noise Quality	Category- Residential Area				Category- Residential Area		
		Leq (Day) dB(A)		Leq (Night) dB(A)		Leq (day) dB(A)		Leq (Night), d (A)		
		38-46		32-38		42.5-47.4		36.8-39.2		
		● Overall the noise quality levels are within the permissible limit of Noise quality standard- 55 dB (A) during the day time and 45 dB (A) during the night time for residential areas.				Overall the noise quality levels are within the permissible limit of Noise quality standard for residential areas, however there is a slight increment in the noise pollution levels.				
		Water Quality	Surface Water							
			● pH- 7.03 –7.97				● pH- 7.36 – 7.68			
			● River water temp.- 18.2 – 19.2 °C				● River water temp.- 10 – 18 °C			
			● Conductivity- 258–290 µmhos/cm				● Conductivity- 228–397 µmhos/cm			
			● Alkalinity- 64–98 mg/l				● Alkalinity- 86–126 mg/l			
			● DO- 8.5–8.7 mg/l				● DO- 6.8–9 mg/l			

S N	Environmental Component	Parameter	Previous Scenario (winter 2013-14)	Current Scenario (winter 2024-25)
			• TSS- 10.2 – 14.2 mg/l • TDS- 124–170 mg/l • COD – 4.9 – 7 mg/l • BOD – <2 mg/l • Total Hardness- 85–124 mg/l • Nitrate- 0.35–0.55 mg/l • Phosphate- 0.03 – 0.05 mg/l • Potassium- 4–7 mg/l • Total Coliform bacteria- Absent • Fecal Coliform bacteria –Absent • Heavy metals (Cu, Zn, Fe, Hg, Cd, Pb, As, Cr) - within the permissible limit specified by CPCB. • Overall surface water quality fulfilled the class-D criteria (Designated for the best use for the propagation of Wildlife & Fisheries) as specified by CPCB.	• TSS- 20 – 28 mg/l • TDS- 145–228 mg/l • COD – 18 – 24 mg/l • BOD – 3.4 –7.8 mg/l • Total Hardness- 70–106 mg/l • Nitrate- 0.32–1.2 mg/l • Phosphate- 0.03 – 0.26 mg/l • Potassium- 2–8 mg/l • Total Coliform bacteria- 940-1410 MPN/100 ml. • Fecal Coliform bacteria- 630-940 MPN/100 ml. • Heavy metals (Cu, Zn, Fe, Hg, Cd, Pb, As, Cr) - within the permissible limit specified by CPCB. • Overall surface water quality fulfilled the class-D criteria (Designated for the best use for the propagation of Wildlife & Fisheries) as specified by CPCB. However, there is an increment in most of the water quality parameters during the current scenario as compared to the previous scenario.
			Ground Water	
			• pH- 7.3–7.64 • Temp.- 18.5 –19.4 °C • Conductivity- 205–225 µmhos/cm • Alkalinity- 85–96 mg/l • TDS- 185–198 mg/l • Total Hardness- 135–185 mg/l • Nitrate- 0.22–0.56 mg/l • Phosphate- 0.01 –0.06 mg/l • Potassium- 2.2–8.5 mg/l • Total Coliform bacteria- Absent • Fecal Coliform bacteria- Absent	• pH- 7.24 – 7.96 • Temp.- 16 – 20 °C • Conductivity- 324–408 µmhos/cm • Alkalinity- 128–160 mg/l • TDS- 211–258 mg/l • Total Hardness- 156–186 mg/l • Nitrate- 0.42–1.2 mg/l • Phosphate- 0.12 –0.18 mg/l • Potassium- 2–4 mg/l • Total Coliform bacteria- <2.0 MPN/100 ml • Fecal Coliform bacteria- <2.0 MPN/100 ml

S N	Environmental Component	Parameter	Previous Scenario (winter 2013-14)	Current Scenario (winter 2024-25)
			- Heavy metals (Cu, Zn, Fe, Hg, Cd, Pb, As, Cr) -within the permissible limit specified by BSI. - Overall ground water quality was within the permissible limit as specified by BSI for drinking water purposes.	- Heavy metals (Cu, Zn, Fe, Hg, Cd, Pb, As, Cr) - within the permissible limit specified by BSI. - Overall ground water quality fulfilled the class-A criteria (Designated for the best use for the drinking water source without conventional treatment but after disinfection) as specified by CPCB and the values are within the permissible limit as specified by BSI for drinking water purposes. However, there is an increment in most of the water quality parameters during the current scenario as compared to the previous scenario.
		Soil Characteristics	- pH- 6.89 – 7.86 - Bulk density- 1-1.5 g /cm³ - Conductivity – 164.5-1431.5 µmhos/cm % Moisture– 2.67 to 10.19 % % Porosity– 0.32-0.38 % - Sand- 63.5-73.5 % - Clay- 5– 11 % - Silt- 18– 23 % - CEC- 8.16-14.8 mg/100gm - Nitrogen- 5.01– 6.63 mg/100gm - Phosphorous- 61.53 – 87.89 mg/100gm - Potassium- 1.9– 3.2 mg/100gm % Organic Carbon– 0.83-3.34 % % Organic Matter– 1.83-5.98 %	- pH- 6.82 – 7.56 - Bulk density- 1.22-1.42 g /cm³ - Conductivity- 184-552 µmhos/cm % Moisture– 4.62 to 6.34 % % Porosity– 0.36-0.48 % - Sand - 60– 75 % - Clay- 10– 14 % - Silt- 15– 28 % - CEC- 9.4-13.84 mg/100gm - Nitrogen- 7.93– 9.36 mg/100gm - Phosphorous- 64.4 – 86.2 mg/100gm - Potassium- 2.6– 4.2 mg/100gm % Organic Carbon– 1.52-3.58 % % Organic Matter– 2.62-6.18 % Overall there is an increment in the soil physico- chemical parameters during the current scenario as compared to the previous scenario.

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S N	Environ mental Compone nt	Paramete r	Previous Scenario (winter 2013-14)	Current Scenario (winter 2024-25)																																								
2	Biologica l Environ ment	Floral Diversity	<table><tr><th>Plant (Habit)</th><th>Family</th><th>Gen us</th><th>Spec ies</th></tr><tr><td>Tree</td><td>32</td><td>49</td><td>60</td></tr><tr><td>Shrub</td><td>18</td><td>30</td><td>36</td></tr><tr><td>Herb/Climber /Grass</td><td>35</td><td>67</td><td>73</td></tr><tr><td colspan="3">Total</td><td>169</td></tr></table>	Plant (Habit)	Family	Gen us	Spec ies	Tree	32	49	60	Shrub	18	30	36	Herb/Climber /Grass	35	67	73	Total			169	<table><tr><th>Plant (Habit)</th><th>Famil y</th><th>Gen us</th><th>Speci es</th></tr><tr><td>Tree</td><td>31</td><td>54</td><td>65</td></tr><tr><td>Shrub</td><td>21</td><td>39</td><td>42</td></tr><tr><td>Herb/Climber /Grass</td><td>47</td><td>80</td><td>85</td></tr><tr><td colspan="3">Total</td><td>192</td></tr></table>	Plant (Habit)	Famil y	Gen us	Speci es	Tree	31	54	65	Shrub	21	39	42	Herb/Climber /Grass	47	80	85	Total			192
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Avifauna	37 species <i>Gyps himalayensis</i>, <i>Accipiter badius</i>, and <i>Aquila chrysaetos</i> falls under Schedule-I of IWPA and <i>Gyps himalayensis</i> listed in IUCN red list 2010 as Near Threatened	41 species. - Four new species recorded (<i>Dendrocittavagabunda</i>, <i>Turdoidesstriata</i>, <i>Paruscinereus</i> and <i>Phoenicurusleucocephalus</i>). <i>Gyps himalayensis</i>, <i>Accipiter badius</i> and <i>Aquila chrysaetos</i> falls under Schedule-I of IWPA and <i>Gyp. himalayensis</i> listed in IUCN red list 2010 as Near Threatened.																																										
Butterflies	16 species .	19 species. - Three new species recorded (<i>Symbrenthialilaea</i>, <i>Papiliopolytesan</i> and <i>Euremabrigitta</i>).																																										
Reptiles	02 species. <i>Varanus bengalensis</i> falls under Schedule-I of IWPA and listed in IUCN red list 2010 as Near Threatened	03 (primary source). <i>Varanus bengalensis</i> falls under Schedule-I of IWPA and listed in IUCN red list 2010 as Near Threatened - One new species recorded (<i>Ablepharushimalayanus</i>)																																										
Mammals	03 species. <i>Canis aureus</i> falls under Schedule-I of IWPA	04 species (primary source). - One new species <i>Mus musculus</i> <i>Canis aureus</i> falls under Schedule-I of IWPA																																										

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S N	Environ mental Compone nt	Paramete r	Previous Scenario (winter 2013-14)	Current Scenario (winter 2024-25)
	Aquatic Diversity	Fish	- Species richness- 04 - Schizothoraxrichardsonii (VU as per IUCN) - Bariliusbendelisis - Bariliusvagra, - Tor putitora (EN as per IUCN)	- Species richness- 02 - Schizothoraxrichardsonii (VU as per IUCN) - Glyptothoraxconirostris
		Phytoplankton	- Bacillariophyceae – 03 - Chlorophyceae - 02 - Cyanophyceae - 01	- Bacillariophyceae – 08 - Chlorophyceae - 04 - Cyanophyceae - 02
		Zooplankton	- Crustacean - 02 - Rotifers - 01 - Protozoa - 02	- Crustacean - 02 - Rotifers - 02 - Protozoa - 01

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

Solid Waste:

- 600 Kg of dry weight waste per day during construction phase.
- 60 Kg of dry weight waste per day during operation phase.

Total Muck Disposal Area	22,18,709 cum
Estimate Muck to be generated	20,14,969 cum

Detailed Solid Waste Management Plan and Muck Management Plan have been appended as Chapter 11 & 7 of EMP submitted to MOEF&CC.

xiii. Public Hearing for the proposed project has been conducted under the chairmanship of Additional District Magistrate, Mandi organised by the State Pollution Control Board on 22.03.2018 & 23.03.2018.

xiv. Status of Litigation Pending against the proposal, if any. **NIL**

xv. The salient features of the project area is as under :-

1. EAC Meeting Details:

EAC meeting	32 nd Meeting of EAC
Date of Meeting	29 th May, 2025
Date of earlier EAC meetings	For ToR : ➤ 10th – 11th Feb 2012 ➤ 7th – 8th Sep 2012 ➤ 11th – 12th Nov 2013 ➤ 20th – 21st Feb 2014 For EC: ➤ 28th June 2018 ➤ 27th Nov 2018 ➤ 13th Sep 2024

2. Project details:

Name of the Proposal	Thana Plaun (191MW) Hydro Power Project on River Beas in Mandi, District of Himachal Pradesh by M/s Himachal Pradesh Power Corporation Ltd.
Proposal No.	IA/HP/RIV/75041/2013
Location (Including Coordinates)	• The location of the Thana Plaun (191MW) Hydro Power project is about 500 m downstream (d/s) at the confluence of Rana Khad with River Beas near village Thana, Distt. Mandi, Himachal Pradesh. • The dam site is proposed at: Longitude: 76°50'20.53" (E) Latitude: 31°49'28.22" (N)
Company's Name	M/s Himachal Pradesh Power Corporation Ltd.
CIN no. of Company/ user agency	U000010HP2006SGC030591
Accredited Consultant and certificate no.	Environment Management Division (DoE), ICFRE, Dehradun in association with M/s. Mantech Consultants Pvt. Ltd. Noida (U.P.), (NABET/EIA/23-26/RA 0305_Rev.01)
Project location (Coordinates/River/Reservoir)	• The dam site is proposed at: Longitude: 76°50'20.53" (E) Latitude: 31°49'28.22" (N)
Inter-state issue involved	No
Proposed on River/Reservoir	River Beas
Type of Hydro-electric project	Dam to Toe Type
Seismic zone	Zone-V

3. Category details:



Category of the project	Category A
Capacity/Cultural command area (CCA)	191 MW
Attracts the General Conditions (Yes/No)	Yes
Additional information (if any)	--

4. ToR / EC Details:

EC Proposal No.	IA/HP/RIV/75041/2013
EAC meeting date	11 th – 12 th Nov 2013 and 20 th – 21 st Feb 2014
ToR Letter No.	Letter No. J-12011/12/2011-IA-I
ToR grant Date	5 th June 2014
Cost of project	Rs. 1530.13 crores including IDC and Financing Charges at 2019 price level
Total area of Project	426.97 ha
Height of Dam from River Bed (EL)	106.70 m above deepest foundation level
Details of submergence area	Forest Land: 309.43ha Private/Deemed Forest: 1.34 ha Private Land: 16.29 ha Total: 327.06 ha
District to provide irrigation facility (if applicable)	NA
Details of tunnels on upper level & lower Level and length of canal(if applicable)	HRT1– 108.17m HRT2 – 146.89m
No. of affected Village.	23
No. of Affected Families	709
Project Benefits	Apart from generating 191 MW of electricity. A work force of about 1000 (skilled/semi-skilled/unskilled) will be engaged during the construction period. Road access in the area will be widened as three roads are going to be constructed for project construction and will later be used as public utility. Various socioeconomic developments in the project area are

	anticipated on establishment of this project. A bridge connecting Tehsil Jogindernagar and Kotli is also to be constructed for public purpose only. Other development works at village level will be taken up from Local Area Development Fund (i.e.@1.5% of Total Project Cost).															
R&R details	- Private Land is being acquired as per the provisions of the “Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013”. - The total private land area to be acquired under Thana Plaun HEP is approximately 20.179 ha. - Social Impact Assessment (SIA) study for acquisition of Private land has been completed and approved from GoHP. - Notification under Section 11(1) of RFCTLARR Act, 2013 published in Gazette on dated 20.12.2023. - Proceedings under Section 16 are underway. - R&R Scheme will be notified under Section 19(1) of RFCTLARR Act, 2013, shortly. <table><tr><th>#</th><th>Description</th><th>Details</th></tr><tr><td>1</td><td>Private Land to be acquired</td><td>20.1796 ha</td></tr><tr><td>2</td><td>No. of Affected Panchayat’s</td><td>12 (13 now)</td></tr><tr><td>3</td><td>No. of affected Villages</td><td>21</td></tr><tr><td>4</td><td>No. of affected Landowners</td><td>709</td></tr></table>	#	Description	Details	1	Private Land to be acquired	20.1796 ha	2	No. of Affected Panchayat’s	12 (13 now)	3	No. of affected Villages	21	4	No. of affected Landowners	709
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	5	Families loosing Land and House	08
	6	Others (Gharats and Pashushalas)	• Out of 38Gharats 19 are in working order and 11 have stopped working. • 12 nos. Pashushalas.
	7	Total of SC landowners	79
	8	Women SC landowners	37 (31 daughters, 05 wife and 01 widow)
	9	Total Villages of SC Landowners	05
	10	SC family to be displaced	01
No ST Landowners family is present in the project			
Catchment area/ Command area	7378 Sq. km		
Types of Waste and quantity of generation During construction/ Operation	• 600 Kg of dry weight waste per day during the construction phase. • 60 Kg of dry weight waste per day during the operation phase. • Detailed Solid Waste Management Plan has been appended as Chapter 11 of EMP.		
Material used for blasting and its Composition as per DGMS standards.	Material Used for Blasting: • Gelatin. • Electric Detonators. • Ordinary Detonators. • Safety Fuse Coil. • Detonating Cord. • Cordtex.		

E-Flows for the Project	
Is Project earlier studied in Cumulative Impact assessment & Carrying Capacity studies(CIA&CC) for River in which the project located? If yes then a) E-flow with TOR/Recommendation by EAC as per CIA&CC study of River Basin. If not, the E-Flows maintain criteria for sustaining the river ecosystem.	a) The EAC, MoEF&CC, GOI in its 20th meeting on dated 27.11.2018, recommended for grant of Environmental Clearance to the project subject to condition "<i>Environment Clearance in respect of Thana Plaun HEP (191 MW) subject to adhering with the conditions/recommendations under CIA & CCS of Beas River Basin studies under consideration with MoEF&CC, GOI</i>". <u>An undertaking in compliance to the recommendations regarding E-Flow of CIA&CCS of Beas Basin has been submitted by HPPCL.</u> b) Recommended E-flow as % of average discharge in 90% dependable year Lean Season = 20% Peak Season = 15% Other Months = 15% c) Recommended E-flow Lean Season = 05.05cumec Peak Season = 46.62cumec Other Months = 11.64cumec
Details on provision of fish pass	A detailed Fisheries Management Plan has been appended as Chapter 5 of EMP.
Project benefit including employment details (no of employee)	Apart from generating 191 MW of electricity. A work force of about 1000 (skilled/semi-skilled/unskilled) will be engaged during the construction period. Road access in the area will be widened as three roads are going to be constructed for project construction and will be later used as public utility. Various socioeconomic developments in the project area are anticipated on establishment of this project. A bridge connecting Tehsil Jogindernagar and Kotli is also to be constructed for public purpose only.



	Other development works at village level will be taken up from Local Area Development Fund (@1.5% of Total Project Cost).
Area of Compensatory Afforestation (CA) with tentative no of plantation.	Area for CA = 829.11 ha of Govt. wasteland Plantation = 1100 trees / ha
Previous EC details	NA
EC Compliance Report by R.O, MOEF&CC	NIL

5. Electricity generation capacity:

Power house Installed Capacity	191 MW
Generation of Electricity Annually	Annual Energy in 90% dependable year on 95% machine availability Main units : 522.25 GWh Environmental units : 139.57 GWh
No. of Units	Five Units = 3x50.33 MW +2x20 MW=191 MW

6. Muck Management Details:

No. of proposed disposal area/(type of land-Forest/Pvt land)	2 Nos.
Cross-section of proposed muck area, Height of muck with slope.	Appended in EMP as Annexure-II.
Distance of muck disposal area (location), from muck generation sources (project area)/River, HFL of proposed muck disposal area.	Distance from Project = 6 km Detailed Chapter appended in EMP as Chapter-7.
Total Muck Disposal Area	22,18,709 cum
Estimated Muck to be generated	20,14,969 cum
Transportation	Through Dedicated Road from Project Site.

H. J. N.

Monitoring mechanism for Muck Disposal Transportation	The excavated material shall be evacuated from site with suitable usable muck to be utilized in project works by the project proponents and also allowed to be used by private users and the non-usable muck is to be disposed off on designated areas so as not to interfere with either environment/ecology or the river flow regime. Thus there is an imperative need to regularly monitor the quantum of muck generated and its disposal, for which purpose the project proponent shall furnish a monthly statement of muck/debris disposal to H. P. State Pollution Control Board.
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7. Land Area Breakup:

Private land	20.1796 ha
Government land/ Forest Land	406.79 ha
Submergence area /Reservoir area	Forest Land: 309.43ha Private/Deemed Forest: 1.34 ha Private Land: 16.29 ha Total: 327.06 ha
Land required for project components	17.34 Hectares

8. 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	Total of 269.65 ha out of 406.79 ha of Forest Land
National Park	No	Proposed for Diversion falls under UPF/DPF.
Wildlife Sanctuary	No	
Archaeological sites, monuments/historical temples etc.	No	
Additional information(if any)	-	

g. j. h.

9. Public Hearing (PH) Details

Advertisement for PH with date	Copies of Advertisement have been appended as Annexure-V of EIA.
Date of PH	22.03.2018 & 23.03.2018
Venue	● Village Mahan, Tehsil Kotli, Distt. Mandi. ● Village Khadkalyana, Tehsil Kotli, Distt. Mandi ● Village Behri, Tehsil Dharampur, Distt. Mandi
Chaired by	Additional District Magistrate, Mandi
Main issues raised during PH	Proceedings of PH have been appended as Annexure-V of EIA.
No. of people attended	307

10. Brief of baseline Environment:

Particulars	Details
Period of baseline data collection/Sampling period.	● 1st March 2013 to 31st December 2013 ● July 2018- September 2018 ● 15th December 2024 to 15th March 2025
Air, noise, water, land (As per one season additional study from 15 th December, 2024 to 15 th March, 2025)	Soil : • The soil in the area is found very shallow with a 10 to 25 cm thick layer. Soil is sandy and loose with pebbles, gravels and weathered stony content. • The pH of soil in the study area varies from 6.82-7.56. • The moisture content was reported in the range of 4.62 to 6.34%. • The Nitrogen content of the soil in the study area ranges from 7.93 mg/100gm to 9.36 mg/100gm. • The Phosphorus was in the range of 64.4 mg/100gm to 86.2 mg/100gm. • The Organic Matter varies from 2.62% to 6.18% and the organic carbon was in the range of 1.52% to 3.58%. Ambient Air Quality Status: • Results of ambient air quality show that all the parameters are well within the National Ambient Air Quality Standards for

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	residential, rural and other areas. Noise Level Status : - The major source of the noise in the study area is vehicular movement and roadside activities. The study shows that the noise levels are within the prescribed limit in all the monitoring stations. Water (Surface and Ground) : - The pH of the water samples in the study area varies from 7.36 to 7.68 indicating slightly alkaline nature. - The alkalinity was recorded in the range of 86 mg/l to 160 mg/l. - Total Dissolved Solids vary from 145 mg/l to 228 mg/l in the surface water samples and 211 mg/l to 258 mg/l in the ground water samples. - The DO was reported in the range of 6.8 mg/l to 9.0 mg/l in the surface water samples and 6.4 mg/l to 8.6 mg/l in the ground water samples. - Presence of Total Coliform and Fecal Coliform are reported in all samples of surface water during winter season indicating the anthropogenic activity in the surrounding area while none in groundwater that may be attributed to anthropogenic activities.
Flora and fauna of the project area (As per one season additional study from 15th December, 2024 to 15th March, 2025)	<u>FLORA:</u> Forest Types The forests of the tract dealt with are well scattered on the both banks of the river Beas, it can be broadly classified into following groups on the basis of various factors a) Scrub forests, b) Bamboo forests, c) Chir forests.



The forests of this division can be further grouped into various forest types as identified by Champion and Seth (1968).

Group: 5 Dry Tropical forests includes

5B/C2 Northern dry mixed deciduous forests

5B/DS1/dry deciduous scrub forests

5B/E9 dry bamboo

Group: 9 subtropical pine forests includes

9/Cla-Lower or Shivalik chir pine forests

9/C1b-Upper Himalayan chir pine forests

A total of 192 species (Angiosperms-184 species, Gymnosperms- 01 species, Pteridophytes- 06 species and Bryophytes- 01 species) were recorded from the study area. Habit wise there were 65 tree species belonging to 54 genera and 31 families, 42 shrub species belonging to 39 genera and 21 families and 85 herb/climber/grass species belonging to 80 genera and 47 families.

Status of vegetation in the study area :

Plant (Habit)	Habit	Species	Genera
Tree	31	54	65
Shrub	21	39	42
Herb/Climber/Grass	47	80	85
Total			192

FAUNA:

Mammals:

- Four species of mammals belonging to 4 families were recorded from the study.
- One species *Canis aureus* falls under Schedule I of Indian Wildlife Protection Act 1972, amended in 2002 and none were listed as globally threatened under IUCN red list 2010.

	The <i>Macaca mulatta</i>, <i>Herpestes edwardsii</i> and <i>Mus musculus</i> was found common in the study area whereas Indian Jackal <i>Canis aureus</i> were found nearby agricultural fields and habitation. Birds : • A total of 41 bird species belonging to 26 families were recorded from the study area. Among these 3 species viz. <i>Gyps himalayensis</i>, <i>Accipiter badius</i>, and <i>Aquila chrysaetos</i> fall under Schedule I and 26 species fall under Schedule II of Indian Wildlife Protection Act 1972, amended in 2022. <i>Gyps himalayensis</i> (NT) is listed in IUCN red list 2010. • The most commonly occurring birds in the study area are Black-chinned Babbler, Blue-throated Barbet, Jungle Crow, Plumbeous red-start and Oriental White eye. Butterflies: • A total of 19 butterfly species belonging to 5 families were recorded from the study area Nymphalidae (8 species) was the dominant family followed by Pieridae (7 species) Hesperidae (2 species), Riodinidae (1 species) and Papilionidae (1 species). • All species are commonly occurring representing subtropical forest. Reptiles: • Three species of reptiles Rock Lizard (<i>Psammophilus dorsalis</i>), Himalayan Ground Skink, (<i>Ablepharus himalayanus</i>) and Monitor Lizard (<i>Varanus bengalensis</i>) were recorded from the study area. • <i>Psammophilus dorsalis</i> and <i>Varanus bengalensis</i> were common in both the study duration whereas <i>Ablepharus himalayanus</i> and
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	<i>Calotes versicolor</i> were recorded during present study. <i>Varanus bengalensis</i> recorded during both the study duration falls under Schedule-I of Indian Wildlife Protection Act 1972, amended in 2022 and is listed in IUCN red list 2010.
Aquatic ecology, etc. (As per one season additional study from 15th December, 2024 to 15th March, 2025)	Phytoplankton - The plankton diversity was studied and a total of 14 genera of phytoplankton were recorded, out of which 4 belong to Chlorophyceae, 2 belong to Cyanophyceae and remaining 8 genera belong to Bacillariophyceae. A total of 11 species of phytoplankton under three categories <i>i.e.</i>, green algae (Chlorophyceae), diatoms (Bacillariophyceae) and blue-green algae (Cyanophyceae) were recorded from the sampling sites. Periphytons - During the present study, a total of 7 genera of periphytons were recorded, out of which 3 genera each belongs to Chlorophyceae and Bacillariophyceae and a single genus of <i>Oscillatoria</i> belongs to Cyanophyceae. Benthic Macroinvertebrates - During the present study, a total of 7 groups of benthic macroinvertebrates were recorded (Table 5 of Annexure III), out of which order Trichoptera shows maximum diversity having 5 genera and Ephemeroptera has maximum number of individuals recorded Fish : - There are more than 16 fish species reported in different studies in river Beas <i>i.e.</i> Carps (Catla, Rohu, Mrigal, Grass carp, Silver carp, Common carp and other Minor carp), Catfish (Seenghala, Singhi, Malhi, Pabda catfish). - In bigger fish River Eel, Grey Trout and

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	Mahasheer are found in the river whereas many other small weed fish species such as Chela and Puntius are common in the tributaries (Kumar & Khanna 2014; Dhanze and Dhanze, 1998; Sehgal, 1973). During present study, only two fish species viz., <i>Schizothorax richardsonii</i> and <i>Glyptothorax conirostris</i> were recorded from different stretches of the river Beas and its tributaries. Of the two species recorded, single individual of <i>Glyptothorax conirostris</i> was recorded in Beas River at Pabo near Dharampur, whereas other species (<i>Schizothorax richardsonii</i>) was recorded at all the sites except in Beas River near Bari village, Mandi and Arnodi stream at Mahan village. Because of the high altitude, low temperature and torrential water flow, the fish faunal diversity was minimal during the period of present research work.
Brief description on hydrology and water assessment as per the approved Pre-DPR:	Detailed project description along with Hydrology and water assessment are provided in the main EIA report of the project, which has already been submitted to the MoEF&CC.
Additional detail (If any)	---

11. Court case details: NIL

12. Status of other statutory clearances:

Particulars	Letter no. and date
Status of Stage-I FC	Stage-I, FC accorded on dated 11.01.2024 vide Letter no. 8-21/2021-FC.
Approval of Central Water Commission	--
Approval of Central Electricity Authority	The Central Electricity Authority (CEA) accorded concurrence to Thana Plaun Hydro Electric Project (3 x 50.33 MW + 2 x 20 MW = 191 MW) under section 8 of Electricity Act, 2003 on dated 07.09.2021
Additional detail (If any)	--

Is FRA(2006) done for FC-I	Yes (To be submitted in compliance to Stage-I FC conditions).
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13. Details of the EMP:

Activities	Capital cost (Lakhs)	Recurring cost (Lakhs /annum)
Catchment Area Treatment Plan	5600.31	981.04
Compensatory Afforestation Plan	5584.87	0
Green Belt Development Plan	20.00	7.76
Biodiversity Management Plan	160.00	0
Fisheries Management Plan	117.00	59.04
Reservoir Rim Treatment	200.00	0
Muck Management Plan	176.00	10.8
Restoration Plan for Quarry Sites and Landscaping	35.00	0
Plan for Public Health Delivery System	100.00	0
Energy Conservation Plan	140.00	0
Solid Waste Management Plan	161.00	0
Rehabilitation And Resettlement Plan	15043.00	0
Local Area Development Plan*	2296.5*	0
Plan for Air, Water & Noise Quality Management	50.00	0
Disaster Management Plan & Risk Assessment	80.00	60.00
Environment Monitoring Plan	474.30	409
Road Management Plan	36.00	0
Total	30273.98 or 302.74 crore	1527.64 or 15.27 Crore
*Cost already included in the project establishment cost		

14. ADS details (If any)

S.No	ADS Point	Reply
1	Project Deferred in 15 th EAC held on dated 28.06.2018, Agenda item no. 15.8 with recommendation to collect baseline data for one more season, afresh.	Fresh EC application along with baseline data for one more season, afresh submitted on dated 31.08.2018.



2.	Proposal recommended for grant of EC subject to following conditions in 20th EAC held on dated 27.11.2018 as Agenda item 20.7 1. Environment Clearance in respect of Thana Plaun HEP (191 MW) subject to adhering with the conditions/recommendations under CIA & CCS of Beas River Basin studies under consideration with MoEF&CC, GOI. 2. Submission of FC Stage-I Clearance to the Ministry.	Stage-I FC granted on 11.01.2024. Request letter in compliance to conditions recommended by EAC sent to MoEF&CC on 11.01.2024. However, the compliance could not be uploaded to PARIVESH 1.0 due to some technical glitch till 03.09.2024.
3	Project Deferred in 15th EAC held on dated 13.09.24, Agenda item no. 15.5 with recommendation: ● <i>The Project Proponent shall conduct one season of baseline data collection in accordance with the standard Terms of Reference for the River Valley and Hydroelectric sector.</i> ● <i>The Project Proponent shall prepare a comparison table that outlines the previous baseline data collected in past years alongside the current scenario.</i>	Fresh EC application along with baseline data for one more season, afresh and comparison table submitted on dated 13.05.2025.

