



State Environment Impact Assessment Authority, M.P.
(Ministry of Environment, Forest and Climate Change, Government of India)

Environmental Planning & Coordination Organization

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To,
Executive Engineer,
Office of the Executive Engineer,
Water Resources Division, Narsinghgarh,
District- Rajgarh, MP- 465669

No.: 1111 /SEIAA/ 21
Date: 03.6.2021

Sub: Case No.6195 /2019: Prior Environment Clearance for Suthaliya Irrigation Project at Village - Beard, Tehsil - Biaora, Dist. Rajgarh (MP) Gross storage capacity - 201.35 MCM, live storage capacity of 183.70 MCM, Cultivable Command Area - 49,800 ha, Gross Command Area- 68400 ha Catchment Area - 4206 Sq.Km., Intercepted Catchment Area 3428.21Sq.Km, Net Catchment Area is 777.79 Sq.Km, Height of dam (m) - 25.00 , Length of Main Dam including Earthen Bund(m) - 4705.00 , Length of spillway(m) - 412.00 by Executive Engineer, Office of the Executive Engineer, Water Resources Division, Narsinghgarh, Dist. Rajgarh, MP- 465669 E-mail: encwrngh@gmail.com Tel No.- 07375 &245608 Env. Consultant: R S Envirolink Technologies Pvt Ltd, Gurgaon

Ref: Your online application (SIA/MP/RIV/34715/2019) dtd. 25.03.21 received in SEIAA office on 27.03.2021

With reference to above, the proposal has been appraised as per prescribed procedure & provisions under the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated 14th September 2006 and its amendment, on the basis of the mandatory documents enclosed with the application viz., Form -I, pre-feasibility report, EIA report, ppt and additional clarifications furnished in response to the observations by the State Expert Appraisal Committee (SEAC) and State Environment Impact Assessment Authority (SEIAA) constituted by the competent Authority.

- The project is planned by WRD, MP to provide irrigation water to Biaora and Narsinghgarh tehsils of Rajgarh district and provision has been made for drinking water supply to Biora tehsil of Rajgarh district.
- The irrigation project is proposed on River Parbati near Berar village of Biaora tehsil in Rajgarh district. Gross storage capacity - 201.35 MCM, live storage capacity of 183.70 MCM, Cultivable Command Area - 49,800 ha, Catchment Area - 4206 Sq.Km., Intercepted Catchment Area 3428.21Sq.Km, Net Catchment Area is 777.79 Sq.Km, Height of dam (m) - 25.00 , Length of Main Dam including Earthen Bund(m) - 4705.00 , Length of spillway(m) - 412.00 .The project will be implemented and operated by Water Resources Department, Madhya Pradesh.
- The project is planned to cater irrigation water to 49,800 ha of CCA in 220 villages of Biaora and Narsinghgarh tehsils of Rajgarh district.

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Case No. 6195/2019

Issued vide letter no. dated

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- iv. The project involves construction of a dam across Parvati River, to create gross storage capacity of 201.35 MCM and live storage of 183.70 MCM.
- v. The proposed Suthaliya dam site is located near Berar village at latitude 23057'09" N and longitude 77009'59" E, geographically covered under SOI Toposheet No. 55 E/1. The proposed dam site is approachable from a fair weather road of 38 km from Bioara.
- vi. As per EIA Notification of September 2006 and subsequent amendments, Irrigation Projects, listed at item 1(c) of Schedule, having culturable command area (CCA) greater than or equal to 10,000 ha and less than 50,000 ha are considered as category B1 project; and are therefore be appraised at State level.
- vii. The proposed project, Suthaliya Irrigation Scheme, has CCA of 49,800 ha; therefore; Scoping Clearance was issued by SEAC and final appraisal will also be carried out by SEAC/SEIAA as Category 'B1' Projects". The case was discussed in 373rd SEAC dated 24/05/2019 wherein ToR was recommended. Accordingly letter was issued by SEAC vide letter No. 406/PS-MS/MPPCB/SEAC/373/2019 dated 17/06/2019.
- viii. There is no wildlife sanctuary, National park (DFO letter dtd. 17.01.19) and interstate boundary (PWD letter dtd.29.01.19) within 10 km of the project area, hence general conditions are not attracted.
- ix. No archaeological monument of national importance lies either in the project area or in its submergence area. There is also no structure of national heritage in the area.
- x. Public Hearings for the Suthaliya Irrigation Project were conducted by Madhya Pradesh State Pollution Control Board (MPPCB) on 24th February 2021 in Rajgarh District and 25th February 2021 in Guna and Bhopal Districts under the Chairmanship of Additional District Magistrates of respective districts. The Project proponent assured the local stake-holders that their grievances and logical demands shall be properly addressed as per prevalent norms and rules. The project proponent also stated to adhere to Environmental norms and standards in project activities. The respondents were also assured that compensation for land and other assets to be acquired and other R&R grants shall be as per provisions enshrined under "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013"
- xi. The Suthaliya Irrigation Project envisages construction of an earthen and concrete dam with central spillway. The project constitutes the following:
 - Construction of 4705 m long Dam with a maximum height of 25.0 m
 - The 412 m long Central Spillway with 19 Nos vertical gates of size 15 m x 12.00 m with a maximum discharging capacity of 19853.86 cumec.
 - The 680.35 m long earthen section on either side of the Dam portion.
 - Storage formed by the construction of Dam will have a Gross storage of 201.35 MCM and live storage of 183.70 MCM
 - Culturable Command Area is 49,800 ha.
 - A total 38 villages of Biaora tehsil of Rajgarh district, Maksudangarh of Guna district and Berasia tehsil of Bhopal district will be affected. Total 1671 families (860 of Rajgarh district & 811 of Guna district) will be displaced requiring resettlement.
 - 3627.93 ha of private land and 605.44 ha government land will be required for the project.



- Diversion of forest land is not required for the proposed project.
 - Water will be lifted through two rising main of 2.5 km and 6.0 km from two pumping locations up to Distribution Chambers and then distributed by gravity mains.
- xii. Total land requirement for construction of Dam, Reservoir area, Distribution chambers, rising main etc. will be 4233.37 ha; out of which 3627.93 ha is private land and 605.44 ha is government land. Diversion of forest land is not required for the proposed Suthaliya Irrigation Project.
- The Submergence area of proposed project falls in Biaora tehsil of Rajgarh district; Maksudangarh tehsil of Guna District; and Berasia tehsil of Bhopal district and Command Area is located in Biaora, Narsingharh Rajgarh tehsils of Rajgarh district.
 - 38 villages of Suthaliya tehsil of Rajgarh district, Maksudangarh of Guna district and Berasia tehsil of Bhopal district will be affected.
 - 2 villages viz. Raghunathpura (Guna) and Gujjar kheri Khurd (Rajgarh) will be fully submerged.
 - 1671 families (860 of Rajgarh district & 811 of Guna district) will be displaced and resettled
- xiii. PP has submitted that the total private land required for the project is 3627.93 ha. – belongs to 38 villages of Rajgarh, Guna Bhopal Districts and Government Land is required is 605.44 ha., and no forest land is involved in this project. Schedule –I species (Peafowl) was found in the study area for which prepared Wildlife Management Plan which has submitted to Chief Wildlife warden , Bhopal. Further, R&R layout Plan at village Mau for displaced persons of Rajgarh district is being proposed.
- xiv. 1671 nuclear families will be displaced to 15 villages. They will be settled in a new village/colony with adequate infrastructure. For resettlement plan, PP has proposed to develop resettlement colonies for Rajgarh and Guna district where 860 and 811 families will be resettled respectively.
- Land has been identified for resettlement of displaced families from Rajgarh district at Khasra No. 1238/1, Village Mhow and layout of the resettlement colony prepared.
 - 16 ha has been earmarked for resettlement of 811 families from district Guna; PP has stated that, land is being finalized in consultation with collector.
 - PP has submitted detailed proposal for resettlement of these families will be prepared in full consultation with project affected families and district administration in full compliance with The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and rules made under the act. Financial requirement for implementation of the Rehabilitation and Resettlement plan and infrastructural facilities is Rs 470.53 Crore.
- xv. Regarding land acquisition PP has submitted that, Land acquisition process has been initiated and section 11 Notification has been issued for 16 villages and remaining are under process. The process will be completed as per the Right to fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 and rules and policies of the state and central governments in this regard. Amenities at the resettlement colonies will be done as per the schedule III of the Act. All the project affected families will be surveyed and compensated as per the provisions of the above

act. Rules and policies. Concerns of the locals regarding inclusion of their land will be settled before publication of section 19 Notification.

- xvi. In irrigation schemes, air pollution occurs mainly during project construction phase. For all major construction activities, curtaining of the site will be done to protect the surrounding areas from dust emissions. In addition, regular sprinkling of the water will be done on construction sites for dust suppression. Dust mask will be provided to the workers. Regular maintenance of machineries Trucks/ dumpers will not be overloaded, and their speed kept within the prescribed limits. Copious sprinkling of water at the work site and haul roads shall be carried out. Wet drilling shall be adopted. Periodical monitoring of air quality. Road damage caused by sub-project activities will be promptly attended to with proper road repair and maintenance work. Excessive soil on paved areas will be sprayed (wet) and/or swept and unpaved areas will be sprayed and/or mulched. During operation phase, no major impacts are envisaged on air quality. For control of air pollution A budget provision of Rs. 10.00 lakh per year for 5 years has been made.
- xvii. The runoff from this site and also from muck storage/disposal sites, material storage area; may contain high quantities of Suspended Solids impacting the water quality of drainages in the area. During the construction phase, wastewater, sewage etc. shall be generated from the labour camp and workshops. If disposed untreated, this would substantially deteriorate the surface and ground water quality in the area. PP has proposed adequate care so that excess suspended solids in the wastewater are removed before these are disposed into water body or over land, although effluent is expected to be small to cause any adverse impact.
- During Construction phase provision of septic tank/ soak pit of adequate capacity for labour camp so that it can function properly for the entire duration of construction phase.
 - During Operation, Commission of suitable treatment facilities to treat the sewage generated from the colony.
 - Oil interceptors shall be provided for refuelling areas, vehicle parking, washing areas etc. All spills and collected petroleum products will be disposed off in accordance with SPCB guidelines.
 - Improved availability of irrigation water during Rabi season in the area shall lead to reduced extraction of groundwater for irrigation and domestic uses.
 - The project is designed to carry out irrigation in command area through sprinkler / drip irrigation system; problem of water logging and salinity is not envisaged. A provision of Rs. 10.00 lakh per year has been made for 5 years
- xviii. Total 75% dependable year yield at Suthaliya dam site is computed as 925.32 MCM. Upstream utilization has been estimated as 162.62 MCM; making net yield at the dam site as 789.70 MCM. 99% of the yield is contributed by monsoon flow.
- xix. The project is designed with live storage/proposed utilization of 183.70 MCM, and remaining water from monsoon contribution will be continuously discharged for downstream users i.e. a surplus of 606.0 MCM, which is sufficient for downstream users, as assessed by WRD during planning of the project.
- xx. The total quantity of muck / debris to be generated due to the project, shall be 8,50,000.00 m³cum, of which 7,43,750.00 m³ shall be consumed on project. Muck will be used for refilling of the trenches and the approach road proposed to be constructed for carrying the pipes at site and preparation of platform for crane.

- For construction of the earthen dam, material will be sought from Borrow areas; surplus muck will be used for refilling and reclamation of land of borrow sites.
 - The surplus soil requiring disposal will be spread on low lying farmers field with their consent. Balance muck will be managed by spreading along the route in the low lying areas.
 - Any further surplus muck, shall be laid in the community undulating area of the connected villages, backfilling/ reclaiming of pits in designated borrow area with the consent of concerning Gram-panchayat or JanpadPanchayat. The muck may also be used by nearby Gram Panchayats for construction of village roads etc.
 - For management, transportation and temporary storage of muck, a lump sum provision of capital expenditure of Rs. 100 lakh has been made for muck disposal.
- xxi. Municipal waste (includes commercial and residential wastes generated in either solid or semi-solid form excluding industrial hazardous wastes and bio-medical wastes)Construction and demolition debris (C&D waste)Following mitigation measures shall be adopted for waste management:
- Construction and demolition waste will be handled in line with the guidelines for handling such wastes given in Construction & Demolition Waste Management Rules, 2016.
 - Contractor shall be responsible for segregation of construction and demolition waste and handle the same in consultation with local authority.
 - Waste construction material shall be recycled as far as possible and remaining disposed off at designated site in consultation with the local authority.
 - Contractor will ensure that there is no littering or deposition of waste so as to prevent obstruction to the traffic or the public or drains.
 - Any hazardous waste generated at site such as waste oil, used batteries, empty barrels/containers/liners contaminated with hazardous chemicals/wastes and contaminated cotton rags or other cleaning materials, etc. shall be disposed off in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
 - A lump sum budget of Rs. 30.00 lakh has been kept for capital expenditure towards procurement of bins, carts, mobile toilets, etc. and Rs. 7 lakh per annum for recurring cost covering replaced items and manpower cost for 5 years of construction phase.
- xxii. For dam break studies of Suthaliya Irrigation Project, the River for a length of about 50 km downstream of the dam site have been represented in the model by numerous cross sections taken at a suitable interval.Disaster Management Plan has been prepared to deal with dam break event; with a budget of Rs. 100.00 lakh to cover the cost of alert system, communication system, emergency response organization, public information system, maintenance period, etc.
- xxiii. Watershed delineation has ben done as per the Watershed Atlas of India developed by Soil and Land Use Survey of India (SLUSI)Free draining catchment area delineated for the Suthaliya irrigation project is 80704.05 ha. Under the plan, various biological and engineering treatment measures have been suggested for severe and very severe erosion prone areas.
- a. Various data used for the study are slope, soil, land use/ land cover, drainage and current management practices.



- b. Around 83% of the catchment area is prone to less than 1 tons/ha/annum soil erosion, i.e. under negligible erosion intensity category.
- c. Almost negligible i.e. 0.06% of its area is prone to Severe and Very Severe soil erosion.

The estimated cost of implementation of CAT plan including administrative measures is Rs. 133.40 lakh

xxiv. **Fisheries Conservation & Management Plan**

- The conservation of fishes under such conditions is one of important task because they typically use different habitats along the river stretch for spawning, feeding, shelter and growth.
 - It is proposed that the reservoir of the proposed dam be stocked with fingerlings.
 - There is a fish seed farm in Rajgarh and Bhopal district working under the Fisherman Welfare & Fisheries Development department, Govt. of Madhya Pradesh. Fish seed can be procured from these fish seed farms. Funds for the management of fisheries for initial three years shall be provided by the project proponent.
 - Under the multispecies culture system, the indigenous Indian major carps Catla, Rohu and Mrigal can be extensively stocked in reservoirs. For better utilization of the available food and maintaining the food chain, stocking of *Labeocalbasu*, *Labeofimbriatus* and *Labeobata* species may also be considered. All these species constitute the native fauna of river Chambal and its tributaries.
- xxv. Project doesn't involve diversion of forest land for any of the project components; therefore, compensatory afforestation will not be applicable.
- A total of 292.00 ha of plantation will be carried out on land to be acquired for the project
 - 6 land parcels have been identified along the periphery of the reservoir
 - Plantation will be carried out through the Forest Department.
 - About 320,000.00 saplings will be planted well before the reservoir filling.
 - Following species are proposed for plantation, keeping in view their growth at periphery of reservoir: Jamun, Arjun, Saja, Hara, Baheda, Sisso etc.
 - Budget has been prepared for capital cost @ Rs. 58,900.00 per ha (as per the schedule of rates of forest department); and maintenance cost for 5 years has been taken as Rs. 27480.00 per ha; therefore total cost including maintenance for 5 years works out to be based on Rs. 86380.00 per ha i.e. Rs. 252.23 lakh.
- xxvi. Total Power Requirement of the project is 16.15MW
- xxvii. During the public hearing no major demand was raised for Local Area Development, however project has identified the local needs and propose the following:

S.No	Name of Village	Name of Tehsil	Infrastructure							TOTAL (in lakh)
			Panchayat Bhawan	Primary school	Aganwadi	Samudayik bhawan	Swasth kendra			
				Infr a	Basic Amenities			Infrastructur e	Medical Equipme nt	
19	Padligusai	Suthaliya	2	2	1.0	2.0	1	2	1	11

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20	Padlithakur	Suthaliya		2	1.0	2.0	2	2	1	10
21	Sadli	Suthaliya		1	1.0	1.0	1	3	1	8
22	Seelkheda	Suthaliya	2	1	1.0	3.0	1	2	1	11
23	Semlapar	Suthaliya	2	1	1.0	2.0	1	3	1	11
24	Shekhanpura	Suthaliya		1	1.0	1.0	1	2	1	7
25	Todi	Suthaliya	2	4	1.0	2.0	1	2	1	13
26	Kherkhedi	Berasia		1	1.0	2.0	2	3	1	10
27	Ghogalpur	Berasia		1	1.0	2.0	1	2	1	8
28	Dhamantodi	Berasia		1.0	1.0	2.0	2	2	1	9
29	Barbelikalana	Berasia	2	1.0	1.0	2.0	1	3	1	11
30	Dongargaon	Berasia		1	1.0	2	2	2	1	9
31	Amarpur	Berasia	2.0	1	1.0	3.0	2	2	1	12
32	Pipakhedi	Berasia		6.0	1.0	2	1	2	1	13
33	Sindhoda	Berasia		1	1.0	5.0	2.0	2	1	12
			30.0	60.0	35.0	74.0	48.0	74.0	33.0	354.0

xxviii. Total cost of project INR Rs. 83859.22 Lakhs.

xxix. Under the CER activities PP committed to make an expenditure @ 1% of the project cost under item i-works towards corporate environment responsibility as per the norms prescribed by Ministry's OM issued vide F.No. 22-65/2017-IA.III dated: 25 February 2021.

Based on the information submitted at Para i to xxix above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 674th meeting held on 07.04.2021 and decided to accept the recommendations of 496th SEAC meeting held on dated 03.04.2021.

Hence, Prior Environmental Clearance is accorded under the provisions of EIA notification dtd. 14th September 2006 & its amendments to the proposed Suthaliya Irrigation Project at Village - Beard, Tehsil - Biaora, Dist. Rajgarh (MP) Gross storage capacity - 201.35 MCM, live storage capacity of 183.70 MCM, Cultivable Command Area - 49,800 ha, Gross Command Area- 68400 ha, Catchment Area - 4206 Sq.Km., Intercepted Catchment Area 3428.21Sq.Km, Net Catchment Area is 777.79 Sq.Km, Height of dam (m) - 25.00 , Length of Main Dam including Earthen Bund(m) - 4705.00, Length of spillway(m) - 412.00 by Executive Engineer, Office of the Executive Engineer, Water Resources Division, Narsingharh, Dist. Rajgarh, MP- 465669 subject to the compliance of the Standard Conditions and the following additional Specific Conditions as recommended by SEIAA & SEAC in its meetings.

A. Specific Conditions as recommended by SEIAA

1. 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.
2. The implementation of R & R Plan to be closely monitored to ensure that all project affected families (PAFs) get adequate & timely compensation.
3. Resettlement & Rehabilitation plan be implemented in consultation with the water resources department as approved by the State Govt

4. Besides the agricultural land, the rehabilitation of public buildings, infrastructures, monument etc. falling in the submergence area should also be included in the rehabilitation plan.
5. A monitoring Committee for R & R shall be constituted which must include representatives of project affected persons including form SC/ST community and at least a woman beneficiary.
6. A grievances redress mechanism is to be devised by WRD GoMP and put in place so that aggrieved PAFs and other stakeholders may approach the Authority easily for resolution of any dispute/conflict.
7. The implementation of Local Area Development Plan (LADP) to be closely monitored.
8. This being a seasonal stream/ river, a minimum environmental flow of 30 % in monsoon season should be released for downstream users.
9. Proposed Bio-diversity Conservation & Management Plan in EMP report should be implemented with State Forest Department. The allocated budget for this purpose shall be fully utilized and not to be diverted for any other purpose.
10. The catchment Area Treatment (CAT) Plan as proposed in EMP report shall be strictly implemented in consultation with Madhya Pradesh State Forest Department. Major works shall be completed before impounding of reservoir. The financial allocation for CAT Plan implementation shall be fully utilized and not to be diverted for any other purpose. Catchment Area Treatment Plan as has been proposed should be completed in five years.
11. To enhance the natural environmental quality & aesthetics of project site, greenbelt, as proposed in the EIA Report shall be undertaken in 292 ha of area. Allocated grant for this purpose shall be fully utilised and not to be diverted for any other purpose.
12. Fishery conservation & management plan as proposed shall be implemented in consultation with the Fisheries Department, Government of Madhya Pradesh. Allocated grant for this purpose shall be fully utilised and not to be diverted for any other purpose.
13. Occurrence of stagnant pools/slow moving water channels during construction and operation of the project may provide breeding source for vector mosquitoes and other parasites. The river should be properly channelized so that no small pools and puddles are allowed to be formed. Even after taking precaution, due to unforeseen situations, breeding of mosquito and resultant malaria or mosquito borne diseases can increase. If such a situation arises, it will be the responsibility of project authorities to take all steps i.e. residual insecticidal spray in all the project area and surrounding 3 km. Area keeping the flight range of mosquitoes in consideration. Also medical assistance to be provided to the affected people at the cost of the developer and appropriate health benefits may be initiated with the help of State Health Department.
14. If the water of reservoir is used for drinking water supply, it should be done after conventional treatment.
15. Regular monitoring of water quality (Surface and Ground) including heavy metals shall be undertaken in the project area and around the project area to ascertain the change, if any, in the water quality due to leaching of contaminants, if any, from the increased use of chemical fertilizers and pesticides.
16. As the reservoir will be acting as a balancing reservoir and there would be fluctuation of water level during peaking period, efforts are made to reduce impact on aquatic life



including impacts during spawning period both at the upstream and downstream of the project.

17. PP should ensure to develop green area 292.00 ha by planting 6 land parcels as identified along the periphery of the reservoir, about 320,000.00 saplings of Jamun, Arjun, Saja, Hara, Baheda, Sisso etc. before the reservoir filling. All the Plantation should be carried out through Forest Department as applied,
18. PP should ensure to implement the CER targets in local area development programmes as suggested by the authority.
19. The project proponent shall comply with the provisions contained in this Ministry's OM issued vide F.No. 22-65/2017-IA.III dated: 25 February 2021, as applicable, regarding Corporate Environment Responsibility and Environmental Management Plan.
20. PP should ensure to submit half yearly compliance report with photographs of plantation in MP-SEIAA. If PP is failed to upload or submit two consecutive half yearly compliance reports of EC conditions to concerned authority (SEIAA and Regional Office, MoEF&CC, GoI, Bhopal) than prior environmental clearance issued to PP will automatically be treated as cancelled/ revoked as per OM No. 930/SEIAA/2019 dated 30.05.2019 issued by MPSEIAA.

B. Specific Conditions as recommended by SEAC

I Statutory Compliance

- i. 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)
- ii. 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

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. Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned 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.
- iii. 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
 - iv. 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
 - v. Mixed irrigation shall be practiced 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.
 - vi. On Farm Development (OFD) works like landscaping, land leveling, 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 area 44.30 ha 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 of 318,750 m³ will 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.

VI Green Belt, Fisheries and Wildlife Management

- i. 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 inventoried and proper management plan shall be prepared for in-situ 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.

VII 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 stagnated pools 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 thoroughly 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.

VIII EMP & Corporate Environment Responsibility

- i. A budgetary provision of Rs. 48377.54 lakhs is made for Environmental Management Plan. Capital cost Rs. 47606.23 lakhs and Rs.771.31lakhs as recurring cost.
 - Out of which Rs. 78.33 Lakhs as capital and 34.21lakhs as recurring cost provided for Green Belt Development Plan in EMP for 5 years period.
 - No muck disposal shall be done outside of the project site; Rs. 100.00Lakh is made for Muck Management Plan in the EMP.
 - Provision of Rs. 133.40 Lakhs is made for Catchment Area Treatment Plan in EMP.
 - Rs.34.70Lakh is made for Fisheries Management Plan in EMP.
 - Provision of Rs. 99.60 Lakh is made for Command Area Development Plan in EMP.
- ii. PP has proposed physical targets based on public hearing under Corporate Environment Responsibility (CER) for following activities:
 - Construction of Panchayat Bhawan at 10 villages (Kherad, Bagwaj, Beriyakhedi, Bhanwas, Hanround, Jatiyakhedi, Kadia Hat, Kishangarh, Mhow, Niwara)
 - Infrastructure (repair and maintenance of building including painting) and basic amenities (drinking water and furniture) at 26 primary schools located in project affected villages

- Contribution for rural childcare through Anaganwadis – 38 anganwadis have been identified for the purpose one each in project affected villages
 - Primary health Centres located at Todi village, Primary Health Sub-Centres located at Semlapar and Agar villages and Community Health Centre located at Bandi (Khed) village following will be provided:
 - Repair and painting of buildings,
 - Improvement of toilets (separate for male and female),
 - Purchase of furniture
 - Drinking water arrangement including provision of water cooler
 - Health Camps – one each in tehsil Berasia (Bhopal), Biaora (Rajgarh) and Maksoodangarh (Guna)
- iii. 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
 - iv. 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.
 - v. 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.
 - vi. 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.

VIII Miscellaneous

- i. 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
- ii. 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.
- iii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- iv. 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. v. 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).

- v. 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).
- vi. 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.

Standard Conditions:

1. The Regional Office of MoEF, Gol, Bhopal & MPPCB shall monitor compliance of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report, Environmental Management Plan and Monitoring Plan should be given to Regional Office, MoEF, Gol, Bhopal & MPPCB. The project proponent shall provide full cooperation during their inspection and all required documents/data to the officials.
2. The responsibility of implementation of environmental safeguards and RR plan rests fully with the Water Resources Department GoMP and Government of Madhya Pradesh. The WRD Government of Madhya Pradesh should also monitor implementation of EMP at regular intervals preferably at the level of Principal Secretary.
3. Necessary livelihood plan for oustees is to be prepared, if found necessary, in consultation with State Government Departments concerned. The Water Resources Department Government of Madhya Pradesh should submit compliance on this components & also while submitting six monthly compliance report to MoEF, Gol, Regional Office, Bhopal.
4. The monitored data for criteria pollutant levels, namely; SPM, RSPM, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the dam site in the public domain.
5. The equipment likely to generated high noise levels during construction period or otherwise shall have to meet the ambient noise level standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000 as amended from time to time under the Environment Protection Act (EPA), 1986. Workers shall be provided with ear plugs / muffs.
6. The Project Proponent has to submit half yearly compliance report of the stipulated terms and conditions in the Prior Environmental Clearance, including the results of monitored data in hard and soft copy to the Regulatory Authority, respective Zonal Office of CPCB and the SPCB and Regional Office of MoEF, Gol at Bhopal on 1st June and 1st December of each calendar year.
7. Adequate financial provision should be made in the total budget of the project for implementation of the above suggestion safeguard measures. The funds earmarked for environmental protection measures shall be kept in separate account and shall be fully utilized for the said purpose and not to be diverted for other purpose. Year wise expenditure shall be reported to the MoEF, Gol, Regional Office located at Bhopal, CPCB & MPCB. In case of revision of the project cost due to price level change the cost of EMP shall also be updated proportionately and revised upwardly.



8. Water User Associated (WUA) Co-operative should have to be formed for efficient water use. Involvement of the community for disciplined and wise use of available waters should be ensured through training programme / effective interactive sessions.
9. On-farm development (OFD) works are to be completed by the project proponent simultaneously and before the commencement of irrigation. WUA's (Water Users Associations) should be made functional to undertake the OFD works. Special & critical monitoring of progress to be undertaken by the Water Resources Department GoMP to ensure that OFD works are completed along with main canal networks.
10. The MP SEIAA or any other competent authority reserves the right to alter/modify or add additional, safeguard measures subsequently, if found necessary and to take action, including revoking of the clearance under provisions of the environment (Protection) Act 1986 to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
11. The Prior Environmental Clearance letter is valid for a period of 10 years from the date of issue of this letter for commissioning of the project.
12. A copy of the Prior Environmental Clearance issued by MP SEIAA shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat / Zila Parishad / Municipal Bodies as applicable, local NGO, if any, in addition to the associated Government Department from whom any suggestion / representations were received while processing the proposal and those responsible for controlling the proposed project, who in turn has to display the same for 30 days from the date of receipt. The clearance letter shall also be put on website by the project proponent.
13. State Pollution Control board / committee shall display a copy of the clearance letter at the regional office, district industries centre and collector's/tehsildar's office for 30 days.
14. The Project Proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the State Level Environment Impact Assessment Authority (SEIAA) website at www.mpseiaa.nic.in and copy the same shall be forwarded to the Regional Office, MoEF&CC, Gol, Bhopal.
15. After 5 years of the commissioning of the project a study shall be undertaken regarding impact of the project on the environment and downstream ecology. The study shall be undertaken by an independent agency to be decided in consultation with the Ministry / authority.
16. A multi disciplinary committee (MDC) for monitoring the implementation of environmental safe guards during construction shall be constituted by the project proponent (PP) in consultation with the state environment ministry as early as possible. A panel may be proposed by the PP and submitted to ministry. The Project Proponent shall organize six monthly meetings of the committee and submit the monitoring report to the ministry.
17. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 EC conditions and shall also be sent to the Regional Office of MoEF.

18. Any other clearance required from any other organization / department should be obtained before commencement of works and commissioning of the project, as applicable.
19. Any appeal against this prior environmental clearance shall lie with the Green Tribunal, if necessary, within a period of 30 days from the date of issue, as prescribed under Section 10 of the National Green Tribunal Act 2010.

Endt No. 1112 / SEIAA/ 2021

Dated 03.6.2024

(Shriman Shukla)
Member Secretary

Copy to:-

- (1). Principal Secretary, Urban Development & Environment Deptt. 3rd Floor, Mantralaya Vallabh Bhawan, Bhopal.
- (2). Secretary, SEAC, Research and Development Wing Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony Bhopal-462016.
- (3). Member Secretary, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016.
- (4). The Collector, District- Rajgarh (M.P.).
- (5). Engineer-in-Chief Water Resource Department, Bhopal(MP)
- (6). The Principal Chief Conservator of forest, Ground floor Satpuda Bhawan, Bhopal (M.P)
- (7). Director, I.A. Division, Monitoring Cell, MoEF, Gol, Ministry of Environment & Forest Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110 003
- (8). Director (S), Regional office of the MOEF, (Western Region), Kendriya Paryavaran Bhawan, Link Road No. 3, Ravi Shankar Nagar, Bhopal-462016.
- (9). Guard file.

(Alok Nayak)
Officer-in-Charge