भारवमंच जयत

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India

(Ministry of Road Transport and Highways, Government of India) कार्यालय परियोजना निदेशक, परियोजना कार्यान्वयन इकाई, सागर भू–खण्ड क्रमांक–1, सनराईज मेगा सिटी, राजघाट रोड, बाघराज वार्ड, सागर (म.प्र.) 470 001

Office of The Project Director, Project Implementation Unit, Sagar
Plot No.-1, Sunrise Mega City, Rajghat Road, Baghraj Ward, Sagar (M.P.) 470 001

Tel.: 07582-298412, email: sagar@nhai.org, sgrpiu1@gmail.com
SAG/22010/9/Mohari-Sataighat/Forest/P-2/2024/ / C.



Website: www.nhai.org

Date: 04/01/2024

To,

The Principal Chief Conservator of Forests (Land Management) & Nodal Officer, GoMP

Van Bhawan, Tulsi Nagar, Bhopal (Madhya Pradesh).

Sub: Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh & Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km

49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under Bharatmala Pariyojana:- **Submission of Compliance of Observations**

raised by Regional Office, MoEFCC, Bhopal on dated 18.12.2023

Ref: 1. Online Proposal No. FP/MP/ROAD/155297/2022 dated 11.05.2022

2. Regional Office, MoEFCC, Bhopal Letter No. 6-MPR041/2023-BHO dated 18.12.2023

3. Your Office Letter No. F-5/1317/2023/10-11/5339 dated 20.12.2023

Respected Sir,

Please refer to subject cited above, the Regional Office, MoEF&CC, Bhopal vide its letter cited under ref-2 has issued the EDS for the proposal No. FP/MP/ROAD/155297/2022 for diversion of forest land under jurisdiction of DFO (North), Sagar & Chhatarpur. Accordingly, the Nodal Officer vide its letter cited under ref-3 has conveyed the same to this office for submission of compliances.

In this regard, the pointwise compliances for the EDS are as under :-

SI. No.	Observations received from IRO, MoEF&CC, Bhopal	Compliance
1.	The State Govt shall submit/upload a consolidated KML file for area proposed for diversion and also shows area of forest and non-forest in different colours.	Consolidated KML file for area proposed for diversion alongwith area of forest and non-forest with their colour is attached herewith (in soft copy Pen Drive) and also uploaded in online Part-I at Sr.No. C. The details of colour for forest & non-forest area are taken as per the following colour combination: Reserve Forest is shown in Green Colour Protected Forest is shown in Pink Colour Revenue Forest is shown in Brown Colour Non-Forest Land is shown in Yellow Colour.
2.	The detail muck disposal plan shall be furnished in which calculation of total muck generated, utilized and to be dumped considering the appropriate swelling factor for the area.	The detailed muck disposal plan along with calculation of total muck to be generated and to be utilized considering allowable swelling factor of 40%, is enclosed as Annexure-1 . The same is hereby uploaded in online portal at Additional Information Details of Part-I of Form A location .
3.	Working plan prescription for area involved in Chhatarpur Forest Division has not been given in online Part-II. It needs to be updated.	The working plan prescription in Part-II will be uploaded by DFO-Chhatarpur as per EDS in Part-II of Parivesh Portal.

क्षेत्रीय कार्यालय, म.प्र.(पूर्व) : म.नं.109, आदर्श नगर, नर्मदा रोड, जबलपुर (म.प्र.) 482008, RO-MP (East) : H.No.-109, Aadarsh Nagar, Narmada Road, Jabalpur (M.P.) Tel.: 0761-3585028 मुख्यालय : प्लाट सं. जी. 5 एवं जी. 6, सेक्टर – 10 द्वारका, नई दिल्ली – 110 075 : दूरभाष : 91-11-25074100/200

Head Office: Plot No. G-5 & G.-6, Sector - 10 Dwarka, New Delhi - 110 075: Phone: 91 - 11 - 25074100/200

4. Legal status of forest land in online Part-II regarding area of Chhatarpur Forest Division is incorrect. The correct information shall be provided in online portal at designated para.

The legal status of forest land of Chhatarpur forest division is as follows:

Village	Compart- ment Number	Proposed Forest Area for Diversion (ha)	Legal Status		
Lahar	206	1.5891	Reserve Forest -206		
Lahar	199	9.1905	Reserve Forest -199		
Bichaun Viran	198	0.2130	Reserve Forest -198		
Bichaun Viran	198	3.7532	Reserve Forest-198		
Maddevra		1.2170	Revenue Forest		
Maddevra		0.0800	Revenue Forest		
Palda	40	3.6845	Reserve Forest-40		
Darguwan	40	9.3651	Reserve Forest-40		
Darguwan		0.0420	Revenue Forest		
Darguwan		0.3840	Revenue Forest		
Tota	al Area (ha)	29.5184			

The above details may kindly be verified by DFO-Chhatarpur and accordingly may be updated in Part-II in Parivesh Potral.

5. The kml and other documents pertaining to proposed CA (60 ha) in Chhatarpur Forest Division has not been uploaded in online portal.

KML file of CA land for proposed area of 60 Hac under DFO-Chhatarpur is attached (in Pen Drive form). The same may be uploaded by DFO-Chhatarpur in Part-II alongwith other documents pertaining to proposed CA (60 ha.).

- 6. It is mentioned in the report of RFO that the area is prone to erosion but no comments have been provided by the concerned DFO of Chhatarpur FD. Appropriate comments with suggestive protection measures, are required to be submitted.
- 1. Length of cutting sections in forest area is limited to 4.2kms. This 4.2km length is scattered between km 55.500 to 57.300& km 84.000 to km 89.000 mainly.
- 2. Typical Cross Section of the project, followed in these reaches has provision of Breast wall (height of breast wall can be 2-3m) with lined drain, cut slope of 1:1 (45 degree) and Catch pit drain, on both side of carriageway, for providing slope stabling.
- 3. Further height of cutting is varying from 2m to 5m in all cutting sections (except in 400m reach from km 88.300 to km 88.700, where height of cutting is up to 10m). The said 400m length having height of cutting > 6m (up to 10m) is generally hard rock and will not require any slope protection.
- 4. IRC-56:2011, Recommended practices for Treatment of Embankment & Roadside slope for erosion control, suggests for less than 6mheight of cutting & low and moderate rainfall, Vegetation (Shallow or deep rooted) shall be provided as erosion control system on slopes. Hence, the same shall be followed by NHAI. Abstract from the IRC-56 is reproduces for ready reference.

In general, suggestions which may be kept in view while selecting the appropriate methodology for erosion control are given in **Table 2**.

1 silver

Table 2 Suggestions for Selection of Erosion Control Technique

Situation	Height of Bank/ Cutting	Rainfall/ Velocity of water	Erosion Control System
Bank/cutting made in cohesive soil/ fine grained soil (CL, CI, CH, ML, MI, MH)	Less than 6 m	Low or moderate rainfall (Flow velocity 3 m/sec or less)	Vegetation (shallow rooted or deep rooted)
Bank/cutting made in cohesive soil (Sandy/ gravely soil)	Less than 6 m	Low or moderate rainfall (Flow velocity 3 m/sec or less)	Vegetation grown on 0.25 m to 0.3 m thick clayey soil as a cover over cohesionless fill
Bank/cutting made in types of soil	More than 6 m	High rainfall (Flow velocity more than 3 m/sec)	Reinforced vegetation or reinforced protection

5. TCS followed in this section is TCS-4E, which is enclosed as Annexure-3.

7. The proposal is of widening and upgradation of existing road for which it has been mentioned that some of the area is overlapping forest area which is 2.4351 ha. of Sagar North FD and 2.5159 ha. of Chhatarpur FD. The State Govt clarify if approval under the provision of FCA 1980 for this overlapping area has been taken in the past or not. The relevant document in this regard shall submitted.

As per the Digital Map of Forest Department, MP in KML file form, the boundary of forest land of Chhatarpur Division is overshooting in adjoining Forest Division, similar is the case of Sagar North Division. Thus, the overlapped area 4.9510 ha [2.4351 ha + 0.0808 ha (2.5159 ha) in Chhatarpur Division+ 2.4351 ha in Sagar North Division] is overlapping. However, though the same area is shown in both the divisions except 0.0808 ha which is overlapping between PF-523 and RF-40 taken in Chhatarpur Division only. We have taken the correct area to avoid the duplicacy. The area in questions, has not been approved under provisions of FCA 1980, at any time earlier. Accordingly, the user agency has considered the area in present proposal for diversion of land for 109.496 Hac. Area Statement is enclosed as **Annxure-2** and KML file (**Blue** colour) of overlapping area (in soft copy Pen Drive) is uploaded in online portal at Sr. No. C of Part-I of Form-A.

 क्षेत्रीय कार्यालय, भोपाल द्वारा प्रस्ताव में की गयी स्थल निरिक्षण रिपोर्ट से संबंधित जानकारी अलग से प्रेषित की जाएगी।

Noted for information.

Sund Chan

In view of above, the compliance of EDS raised by IRO, MoEF&CC is hereby submitted for kind consideration and grant of approval for Stage-I clearance at the earliest, so that appointed date of the subject project may be declared at the earliest please.

Yours Faithfully,

Encl.: As above.

(Sunil Sharma)
Project Director

Copy to:

- 1. The Regional Officer, NHAI, RO-MP (East), Jabalpur for kind information please.
- 2. The DFO-Chhatarpur for kind information and it is requested to submit the proposal to onward Stage-I approval in the matter please.
- 3. The DFO-North, Sagar for kind information please.
- 4. The DPR Consultant, M/s URS Scott Wilson India Pvt. Ltd. for information & necessary pursuance please.

SP

Project Name

Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh&Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under BharatmalaPariyojana

Forest Proposal No. FP/MP/ROAD/155297/2022

Annexure-1

MUCK DISPOSAL PLAN

1.	Calculation of muck to be generated.	Quantity of Muck Generation and Utilization						
	Swell factor has to be applied	sheet is enclosed. Calculation of swell factor						
		is applicable.						
		Undertaking is enclosed.						
2.	Quantity of muck to be utilized in the project activities	As above						
3.	Balance quantity of muck which requires	No balance quantity will be left for						
	disposal/management plan	preparation of disposal/management plan.						
4.	Carriage of muck from the muck	Not Applicable						
	generation site to the dumping site							
5.	Ownership of land and the consent of land	Not Applicable						
3	owners, in case muck disposal is proposed							
	on non forest land.							
6.	Photograph & carrying capacity of	Not Applicable						
	proposed dumping site (Muck disposal							
	site)							
7.	Development of dumping site-	Not Applicable						
	construction of retaining walls and other							
	structure as per requirement of the site.							
	The objective is to completely stop rolling							
	down of the muck.							
8.	Rehabilitation of dumping site like	Not Applicable						
	leveling, planting of grass, shrubs and tree							
	species.							
		1 1 1 1 1 1 1 1 1 1 1 1 1 1						

Note: Cost to be incurred on the above activities has to be given component wise. Detail of dumping site including length, width and height of structures to be erected must be mentioned.

Undertaking by the user agency has to be given to the effect that:

- 1. Muck management plan will be implemented by the user agency and in case of non-implementation of the plan, they will be liable to penalty/action at their cost.
- 2. The proposed dumping site is located away from river/stream/nala.



Project Name

Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh&Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under BharatmalaPariyojana

Forest Proposal No. FP/MP/ROAD/155297/2022

	QUANTITY OF MUCK GENERATION AND UTILIZATION S	SHEET								
SL. No.	DESCRIPTION	UNIT	QUANTITY							
Α.	Muck Generation									
1	Excavation in Soil using Hydraulic Excavator CK 90 and Tippers with Disposal upto 1000 metres including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all leads and lifts as per Technical specifications and as directed by the Engineer-in-charge.	Cum	1,736,654							
2	Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site within all lifts and lead upto 1000 m, trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections.	Cum	612,804							
3	Earthwork in excavation of foundation for structures including pipe culverts in all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	Cum.	10,084							
4	Ordinary Soil - Depth Upto 3m	Cum	74,039							
		Total	2,433,582							
5	Swelling Factor	40%	973,433							
	Grand Total of Muck G	enerated	3,407,015							
В.	Muck Utilization		0,407,010							
	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2 as per Technical specifications and as directed by the Engineer-in-charge.	Cum	3,407,015							
C.	Balance Muck to be Dumped at Site		1							
	Balance quantity of muck which requires disposal at Site	Cum	Nil							



Project Name

Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh&Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under BharatmalaPariyojana Forest Proposal No. FP/MP/ROAD/155297/2022

MUCK DISPOSAL CERTIFICATE

This is to certify that I/We, Project Director, NHAI, PIU, Sagar, hereby undertake that, we will utilize generated muck for construction of embankment during "Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh&Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under BharatmalaPariyojana".

Date:-

Place: - Sagar

Project Director

National Highway Authority of India

Project Implementation Unit-Sagar

Plot No-1, Sunrise Mega City

Rajghat Road, Baghraj Ward Sagar (M.P.)-470001

CHECK LIST SERIAL NUMBER 07

STATEMENT SHOWING DETAILS OF FOREST AREA PROPOSED FOR DIVERSION

Full title of the Project:-Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh & Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 89+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under Bharatmala Pariyojana

	LEU ST	reduction and	
Proposal	No.	FP/MP/RO	AD/155297/2022

Forest	District	Division	Tehsil	Range	Village	Design Chainage		e (Km) Avg.		Khasra No. /	Compartment	Affected Forest	Overlapping	Net Forest	Legal Status
Patch						From	To	Length	Width/	Sur ey No.	Number	Area (ha.)	Forest Area	Area for	and the state of
1	2	3	4	5	6	7	8	9=(8-7)	10	11	12	13=(9x10)	14	15=(13-14)	16
1	Sagar	Sagar North	Shahgarh	Shahgarh	Mohari	51.151	51.375	0.214	60.00	·	466	1.2815	0.0	1.2815	Protected Forest-46
2	Sagar	Sagar North	Shahgarh	Shahgarh	Mohari	51.618	53.793	2.175	60.00		489	13.0513	1.8162	11.2351	Reserve Forest-489
3	Sagar	Sagar North	Shahgarh	Shahgarh	Bilgawan	55.191	56.586	1.395	60.00		488	8.3711	0.5784	7.7928	Reserve Forest -48
4	Sagar	Sagar North	Shahgarh	Shahgarh	Bilgawan	56.769	58.462	1.694	60.00		487	10.1628	0.0	10.1628	Reserve Forest -48
5	Sagar	Sagar North	Shahgarh	Shahgarh	Bilagram	59.730	61.579	1.799	60.00	•••	483	10.7961	0.0406	10.7556	Reserve Forest-483
6	Sagar	Sagar North	Shahgarh	Shahgarh	Bilagram -	61.579	61.676	0.097	28.48		492	0.2762	0.0	0.2762	Protected Forest-49
7	Sagar	Sagar North	Shahgarh	Shahgarh	Bilagram	61.676	61.751	0.075	17.29	· · ·	482	0.1296	0.0	0.1296	Reserve Forest-482
8	Sagar	Sagar North	Shahgarh	Shahgarh	Bilagram	61.846	61.936	0.090	60.00		482	0.5370	0.0	0.5370	Reserve Forest-482
9 .	Sagar	Sagar North	Shahgarh	Shahgarh	Sasan	63.402	64.491	1.089	51.48	599	492	5.6059	0.0	5.6059	Protected Forest-49
10	Sagar	Sagar North	Shahgarh	Shahgarh	Sasan	63.974	64.202	0.228	29.62		480	0.6752	0.0	0.6752	Reserve Forest-48
11	Sagar	Sagar North	Shahgarh	Shahgarh	Sasan	64.491	66.695	2.204	60.00		480	13.2232	0.0	13.2232	Reserve Forest-480
12	Sagar	Sagar North	Shahgarh	Shahgarh	Shahgarh	66.950	67.500	0.550	33.98	257		1.8690	0.0	1.8690	Bada Jhad
13	Sagar	Sagar North	Shahgarh	Shahgarh	Shahgarh	67.500	67.640	0.140	57.14	253		0.8000	0.0	0.8000	Bada Jhad
14	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	81.955	82.226	0.271	60.00	705		1.6250	0.0	1.6250	Vriksh Kunj
15	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	84.054	84.658	0.594	60.00	52	524	3.5650	0.0	3.5650	Protected Forest-52
16	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85.017	85.107	0.090	16.75	52	524	0.1507	0.0	0.1507	Protected Forest-52
17	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	84.610	84.670	0.060	45.17	35	- 44	0.2710	0.0	0.2710	Forest
18	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	84.650	84.700	0.040	2.51	.89		0.0100	0.0	0.0100	Vriksh Kuni
19	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85.040	85.100	0.060	58.50	.37		0.3510	0.0	0.3510	Forest
20	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85.130	85.300	0.120	53.83	63		0.6460	0.0	0.6460	Vriksh Kunj
21	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85,300	85.400	0.100	14.80	58		0.1480	0.0	0.1480	Forest
22	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85.370	85.630	0.260	58.96	57		1.5330	0.0	1.5330	Forest
23	Sagar	Sagar North	Shahgarh	Shahgarh	Hirapur	85.703	86.925	1.222	60.00	152, 54, 156	523	7.3340	0.0	7.3340	Protected Forest-52
					П	otal Lens	rta (Km)	14.567	100		Forest Land (ha)	82.4127	2.4351	79,9776	TOCOTOR TOTOSC JZ.

Date:-Place:- Sagar Gumon India Quivate Con Not pall

Project Director
National Highway Authority of India
Project Implementation Unit-Sagar
Plot No-1, Sunrise Mega City
Rajghat Road, Baghraj Ward
Sagar (M.P.)-470001

Countersigned
Divisional Forest Officer
.....Forest Division
Office Seal.

Project Diretor

Annexure-2

CHECK LIST SERIAL NUMBER 07

STATEMENT SHOWING DETAILS OF FUREST AREA PROPOSED FOR DIVERSION

Full title of the Project:-Improvement and Upgradation of existing 2-lane to 4-lane with paved shoulders, with/without Service Roads including Realignments and Shahgarh & Hirapur Bypasses from Mohari to Satai Ghat section of NH-934 & NH-34 (old NH-86) from Design Km 50+300 (Existing Km 49.789) to Design Km 29+878 (Existing Km 90.302) in the state of Madhya Pradesh (Package-2) under Bharatmala Pariyojana

Patch No.	District	Division	Tehsil	Range	Village	Design		e (Km)	Avg.	OAD/155297/2022 Khasra No. /	Compartment	Affected Forest	Overlapping	Net Forest	T = 10: /
						From	То	Lergth	Width/ PRoW (m)	Survey No.	Number	Area (ha.)	Forest Area (ha)	Area for Diversion (ha)	Legal Status
1	2	- 3	4	5	6	7	8	9=(3-7)	10	11	12	13=(9x10)	14	15=(13-14)	1.
1			Buxwaha	Buxwaha	Lahar	53.131	53.775	0.544	49.35		206	3.1784	1.5893		16
2	Chhatarpur	Chhatarpur	Buxwaha	Buxwaha	Lahar	53.687	55.416	1.729	57.81	26	199			1.5891	Reserve Forest -206
3	Chhatarpur	Chhatarpur	Buxwaha	Buxwaha	Bichaun Viran		58.951	0.213	10.C0	3		9.9958	0.8053	9.1905	Reserve Forest -199
4	Chhatarpur		Buxwaha		Bichaun Viran		59.702	***************************************			198	0.2130	0.0	0.2130	Reserve Forest -198
5	Chhatarpur		Buxwaha	Buxwaha				0.632	60.C0	4	198	3.7937	0.0406	3.7532	Reserve Forest-198
6	Chhatarpur			~/~~~	Maddevra		78.435	0.360	46.81	989/4		1.2170	0.0	1.2170	Forest
7			Buxwaha	Buxwaha	Maddevra	78.410	78.435	0.075	10.66	1352/1		0.0800	0.0	0.0800	Forest
1	Chhatarpur	Chhatarpur	Buxwaha	Malhera	Palda	86.925	87.553	0.€28	60.CD	1	40	3.7653	0.0808	3.6845	Reserve Forest-40
8		Chhatarpur	Buxwaha	Malhera	Darguwan	87.553	89.114	1.561	60.CD	1356, 1355, 1264, 1263, 1262, 1260	40	9.3651	0.0	9.3651	Reserve Forest-40
9	Chhatarpur	Chhatarpur	Buxwaha	Malhera	Darguwan	89.350	89.385	0.035	12.00	1293		0.0420	0.0	0.0420	P. Color
10	Chhatarpur	Chhatarpur	Buxwaha	Malhera			89.730	0.195	19.69	1301		0.3840	0.0		Forest
						tal Lengt					orest Land (ha)	32.0343	2.5159	0.3840 29.5184	Forest

Date:-

Place:- Sagar

Project Director
National Highway Authority of India
Project Implementation Unit-Sagar
Plot No-1, Sunrise Mega City
Rajghat Road, Baghraj Ward
Sagar (M.P.)-470001

Countersigned
Divisional Forest Officer
.....Forest Division
Office Seal.....



Project Director

Annexure-3

TCS Followed in this section is TCS-4E, which is as under

