

JOINT INSPECTION REPORT

IN RESPECT OF LAND REQUIRED FOR PROPOSED 1.5 MW BRAGUNA SMALL HYDRO ELECTRIC PROJECT AT GP PREENA SUB-TEHSIL DHARWALA DISTT. CHAMBA (HP).

1. Joint inspection of site for construction of proposed BRAGUNA SHEP (1.5 mw) was conducted on **16/09/2017** by the committee consisting of undersigned officers. This project is being constructed by **M/S BANNI HYDRO PROJECT** having its registered office at village Khalna Po. Kunr Sub-Tehsil Dharwala Distt. Chamba HP. And corp. office at Village Bhairu Po. Nerti Tehsil Shahpur Distt. Kangra HP. The project envisages generation of 1.5 mw of electricity by utilizing the water of Braguna nallah near Village Preena. This is a run of the river project. The water of Braguna nallah will be diverted through diversion weir and then water will be taken through conveyance channel to desilting tank and through 600 mtrs long tunnel upto the 'underground Forebay Tank and through 154 m long penstock to power house. After generation of electricity the water will be released back into the Braguna Nallah below power house. The project will utilize a total of **0.98.54** Hec. land out of which **0.98.54** Hec. is Forest land. The company has projected a demand for diversion of **0.98.54** Hec. Forest land under the Provisions of Forest Conservation Act. 1980 which includes **0.16.51** Hec. of land nationally for underground tunnel and **0.43.04** Hec. land below transmission line for Right of way. And **0.38.99** Hec for surface components.

2. During the course of joint inspection, three alternatives were examined as presented on the spot by the representative of the company. In **Alternate I**, **0.98.54** Ha of Forest land are involved for construction of the various project components like Trench weir, conveying channel, surface desilting tank, surface forebay, surface Penstock, surface Power House & Transmission Line. The entire water conductor system consists of open surface channel. This is a right bank alternative on Braguna nallah. This scheme involves cutting of approximately 100 trees.

In **Alternate II**, which is again on the right bank, the total forest land requirement is **0.98.54** Ha. And zero trees are involved. In this alternative, the layout consists of an underground tunnel (**600 mtr** long) and hence reduces the overall land requirement. It also avoids passing through inhabited area and reduces cutting of large number of trees.

In **Alternate III**, which is on the left bank of Braguna nallah, involves cutting of large number of trees and larger requirement of Forest Land due to increase in the length of the water conductor system.

3. The project also involves construction of a dedicated 33KV underground cable (Transmission Line) upto Dharwala sub station of HPSEB Ltd. Total length of transmission line is 3587 mtrs (Forest land 3587 and Private land 00) The right of way required to be acquired for laying of 33KV underground cable is 1.20 mtrs. The total area involved in transmission line **0.43.04** Ha. out of which **0.43.04** Ha. Forest land. The corridor width of **1.20 mtrs.** has been taken for this transmission line.

4. The project will generate muck to the tune of 3600.00 cubic meters which after applying 45% swell factor becomes 5075.00 cubic meters. Out of this muck, 375.00 cubic meters will be utilized locally in leveling and behind retaining walls etc. The remaining 4700.00 cubic meters muck will require safe disposal for which Three no's of dumping sites have been identified. The capacity of these dumping sites has been calculated as 5000.00 cubic meters which will be sufficient for holding the quantity of muck to be disposed off.

FOREST LAND INVOLVED IN VARIOUS COMPONENTS OF BRAGUNA SMALL HYDRO ELECTRIC PROJECT (1.5 MW) WITH DETAILS OF KHASRA NO. AS UNDER :-

Components	District	Division	Mohal	Khasra No.	Forest Area Proposed For Diversion (Hectare) Hec.	Forest Area Proposed For Diversion (Bigha) B - B - B	Classification	Preset Land Use
Surface Component								
Trench Weir	Chamba	Chamba	Preena	354/1	0.03.42	00-08-09	Gair mumkin Khad	DPF Jhumbed
Feeder Channel	Chamba	Chamba	Preena	354/2	0.02.30	00-05-14	Gair mumkin Khad	DPF Jhumbed
Desilting Tank	Chamba	Chamba	Preena	1616/358/1	0.01.94	00-04-16	Charagah Billa Drakhtan.	DPF Jhumbed
Diversion Channel	Chamba	Chamba	Preena	354/4	0.00.48	00-01-04	Gair Mumkin Khad	DPF Jhumbed
Flushing Pipe	Chamba	Chamba	Preena	1616/358/5	0.00.32	00-00-16	Charagah Billa Drakhtan.	DPF Jhumbed
Power Channel In Open	Chamba	Chamba	Preena	1616/358/2	0.00.56	00-01-08	Charagah Billa Drakhtan.	DPF Jhumbed
Power Channel In Tunnel	Chamba	Chamba	Preena	1616/358/3	0.03.72	00-09-04	Charagah Billa Drakhtan.	DPF Jhumbed
	Chamba	Chamba	Kalmla	1883/1854/1809/7	0.12.79	01-11-12	Charagah Billa Drakhtan.	DPF Bandla
Forebay	Chamba	Chamba	Kalmla	1883/1854/1809/6	0.00.85	00-02-02	Charagah Billa Drakhtan.	DPF Bandia
Penstock & Spillway	Chamba	Chamba	Kalmla	1883/1854/1809/5	0.04.42	00-10-18	Charagah Billa Drakhtan	DPF Bandla

0	Power House & Switch Yard	Chamba	Chamba	Kalmla	1883/1854/1809/1	0.07.65	00-18-18	Charagah Billa Drakhtan	DPF Bandla
1	Tail Race	Chamba	Chamba	Kalmla	1883/1854/1809/8	0.00.34	00-00-17	Gair mumkin Nallah	DPF Bandla
2	Dumping Sites	Chamba	Chamba	Preena	354/3	0.03.40	00-08-08	Gair mumkin Khad	DPF Jhumbed
		Chamba	Chamba	Preena	1616/358/4	0.02.83	00-07-00	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Kalmla	1883/1854/1809/2	0.03.04	00-07-10	Charagah Billa Drakhtan	DPF Bandla
		Chamba	Chamba	Kalmla	1883/1854/1809/3	0.04.53	00-11-04	Gair mumkin Nallah	DPF Bandla
	Approach Road To P.H.	Chamba	Chamba	Kalmla	1883/1854/1809/4	0.02.91	00-07-04	Charagah Billa Drakhtan	DPF Bandla
	Transmission Line	Chamba	Chamba	Preena	425/1	0.06.98	00-17-05	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Preena	596/1	0.04.91	00-12-02	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Preena	1590/889/1	0.06.15	00-15-04	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Preena	957/1	0.04.35	00-10-15	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Preena	436/1	0.02.22	00-05-10	Gair Mumkin Nallah	DPF Jhumbed
		Chamba	Chamba	Mokhri	391/1	0.03.15	00-07-16	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Mokhri	573/390/1	0.03.72	00-09-04	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Mokhri	386/1	0.00.97	00-02-08	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Mokhri	387/1	0.00.08	00-00-04	Gair mumkin Nalli	DPF Jhumbed
		Chamba	Chamba	Mokhri	467/1	0.07.00	00-17-06	Charagah Billa Drakhtan	DPF Jhumbed
		Chamba	Chamba	Kalmla	1810/1	0.02.22	00-05-10	Gair Mumkin Nallah	DPF Bandla
		Chamba	Chamba	Kalmla	1883/1854/1809/10	0.01.29	00-03-04	Charagah Billa Drakhtan	DPF Bandla
Grand Total of 1 to 14 Components						0.98.54	12-03-12		

- Signature of Representatives of Concern Departments in Joint Inspection Of
Braguna SHEP (1.5 mw) as Dated on 16-09-2017

Representative
M/S BANNI HYDRO PROJECT

Representative
CHAMBA T.H.F.

Representative
Sub-Tehsil Dharwala

Representative
PCB. Chamba

Range Forest officer,
Upper Chamba

Representative
HP PWD Sub- Division Rakh,
Division Bharmour

Pradhan,
Gram Panchayat, Preena

Representative
IPH Division, Chamba

Representative
HPSEBL Chamba

Mining Officer,
Chamba

Divisional Forest Officer
Chamba Forest Division, Chamba
Chamba Dist. Chamba-176310

Sub Divisional Magistrate (Collector),
Chamba Sub-Division, Chamba
Chamba Dist. Chamba