

**DIVERSION OF 1.7029 HA. OF FOREST LAND FOR CONSTRUCTION OF GAJ GEHRA SMALL  
HYDRO PROJECT 2 MW IN DISTRICT KANGRA (H.P.)**

**FILE NO.** : **FP/HP/HYD/49599/2020**  
**DATE OF PROPOSAL** :

**ALTERNATE SITES CONSIDERED TO MINIMISE THE USE OF  
FOREST LAND FOR CONSTRUCTION OF  
GAJ GEHRA SMALL HYDRO ELECTRIC PROJECT (2 MW)**

**ALTERNATIVE-I**

The proposed project is partially situated on the left bank of the Gaj Khad. The alternative involves construction of diversion structure at EL  $\pm$  1490 m on Gaj Khad. The De-silting Tank and water conductor for 320 m. length shall be located on left bank of Gaj Khad. Then the Water Conductor will be laid on the right bank of Gaj Khad. The Surge Tank and Power House shall be located on the right bank of Gaj Khad. The gross head available for power generation shall be around 160 m.

Feature considered:

- Forest land involved to the tune of 2.7109 hectares.
- The project partially falls on left bank and partially on right bank.
- Gross head is fully utilized, resulting in more power generation.
- Less felling of trees i.e. 69 number of trees including 39 number of saplings is involved in the proposal.

**ALTERNATIVE- II**

This alternative involves construction of diversion structure on Gaj Khad at EL  $\pm$  1490 m and the Water Conductor System involving of about 830 m length passing through a loose rock on the right bank of the khad. Geologically, this alternative is not appropriate for the safety of the Project components. It requires 1.73 ha forest land and involves felling of 75 number of trees.

Feature Considered:

- Forest land involved to the tune of 1.73 hectares.
- It is difficult for construction of water conductor system on the right bank as it passes through loose rock.
- Gross head available also decreases, resulting in less power generation.
- The Project cost increases in this alternative.
- Felling of 75 number of trees is involved in the proposal.

**ALTERNATIVE- III**

This is mainly left bank alternative and involves construction of diversion structure at EL  $\pm$  1490 m on the Gaj Khad. Water of Gaj Khad shall be diverted through 1110 m long Pressurised Power Pipe from De-Silting cum Forebay Tank. The Power House shall be constructed on the left bank of Gaj Khad, near to the Gaj Khad. The water conductor shall be laid along the Gaj Khad making it unsafe for the Project. The net head available shall also be less. In this alternative the Power Channel shall be pressurized and the area in question is vulnerable to land slides. The proposal involves 1.8 ha of forest land and felling of 82 number of trees.

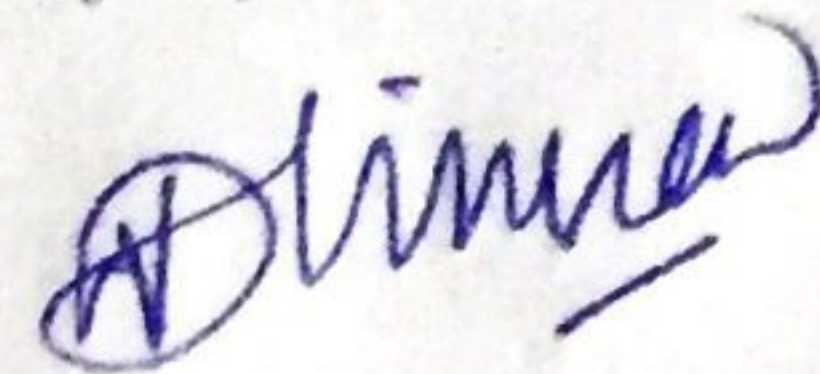


Features Considered:

- Forest land involved to the tune of 1.84 hectares.
- The Power Channel shall not be safe in this alternative.
- More felling of trees i.e. 82 is involved in the proposal.

Keeping in view all the above three alternative, the **alternative- I**, which is more suitable and environmental friendly, has been finally adopted.

For M/s Gaj Hydro Power (P) Ltd.



Authorised Signatory

Place : Gaggal

Dated :

Countersigned by :

Dr. Sanjeev Sharma (HPFS)  
Divisional Forest Officer  
Dharamshala Forest Division  
Dharamshala