

**DIVERSION OF 0.5684 HA. OF FOREST LAND FOR CONSTRUCTION OF CHANED
SMALL HYDRO PROJECT(1 MW) IN DISTRICT CHAMBA (H.P.)**

FILE NO. : **FP/HP/HYD/138838/2021**

DATE OF PROPOSAL :

**RECLAMATION PLAN
CHANED SMALL HYDRO PROJECT (1 MW) DISTRICT CHAMBA (H.P.)**

Dumping sites for disposal of muck have been identified with due consideration of its distance and suitability of the area and Topography point of view.

Accordingly the following sites have been identified:

Sr. No.	Description	Mohal	Khasra No.	Area in Sq.m.
1.	Dumping Site – I	Bhanota	837 / 6	202
2.	Dumping Site – II	Bhanota	837 / 3	64
3.	Dumping Site – III	Bhanota	917 / 3	80

Rehabilitation Proposal

Since there is no displacement of any population due to the construction of the Project there will be no rehabilitation problem.

Afforestation

Compensatory afforestation shall be carried out by the forest department for which compensation shall be paid by the user agency. Area to be taken for afforestation shall be twice the forest land required for the construction of project.

Retaining walls

RR Masonry/GI Wire crate filled with boulders/ stones reclaimed from excavation of road shall be used for construction of retaining walls for retaining the surplus excavated earth / muck as per standard design of HPPWD with due consideration to site condition.

Use of muck/debris

Most of the excavation muck/debris obtained from the project components shall be used for manufacture of aggregates for construction work, filling in wire creates, stone masonry works breast wall, switchyard, etc. The remaining muck/ debris will be neatly stacked in dumping areas identified for the purpose.

Plantation

The dumping area and various sites shall be properly leveled after the completion of the project. The area will be landscaped the plantation carried out so as to merge with the natural surroundings.

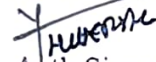
MUCK DUMPING DETAIL FOR CONSTRUCTION OF CHANED SMALL HYDRO PROJECT

Location of Dumping	Area (in sq. m)	Slope of dumping place in degree	Qty. of muck generated (Cu. Mtr)	Qty. with Swell Factor (Cu. Mtr.) 45 %	Qty. muck to used (Cu. Mtr)	Qty. of muck deposited (Cu. Mtr.)	Height of dumping expected in mtr.
Dumping Site - I	202	15	385	557	139	418	5.6
Dumping Site – II	64	20	353	512	204	308	5.2
Dumping Site – III	80	25	848	1230	424	806	4.4
TOTAL	346		1586	2299	767	1532	5.07(Avg.)

Sr. No	Description	Khasra no.	Area in Sqm	Height	Capacity of Dumping Site Qty. in Cu.m.
1.	Dumping Site – I	837 / 6	202	5.6	448
2.	Dumping Site – II	837 / 3	64	5.2	333
3.	Dumping Site – III	917 / 3	80	4.4	889

For M/s OHP Project Private Limited

For OHP Project Pvt. Ltd.

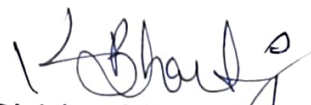

Auth. Signatory

Place :Chamba

Dated :

Authorised Signatory

CS


Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Ptn - 176304

**COST ESTIMATION OF DUMPING SITES & PLANTATION
CHANEDSMALL HYDRO PROJECT (1 MW)**

SR. NO.	DESCRIPTION	UNIT	QTY.	RATE (IN Rs.)	AMOUNT (Rs. IN LAKHS)
1	Cost of Surveying and Investigation	Lump-sum	1	20000	0.20
2	Cost of Carrying of muck to the dumping site and properly stacking.	CUM	1532	10	0.16
3	Providing Stone Filled Gabion Wire Crates for protection Work.	CUM	100	1250	1.25
4	Plantation of 40 plants @ Rs 57/- per plant.	Nos	40	57	0.03
5	Digging of pit for plantation.	Nos	40	30	0.02
6	Cost of Barbed wire Fencing for protection of Plants @ Rs. 20/- per plant.	Nos	40	20	0.01
7	Salary for Gardener for 3 years @ Rs.3200/- per month.	Months	36	3200	1.16
8	2 Nos. Beldar for protection of plantation for 2 years @ Rs.70/- per day.	Year	2	51100	1.02
9	Reclamation and restoration.	Lump-sum	1	10000	0.10
10	Landscaping and Beautification.	Lump-sum	1	10000	0.10
				Total	4.05 Lakhs

For OHP Project Private Limited

Place :Chamba
Dated :

For OHP Project Pvt. Ltd.
[Signature]
Auth. Signatory
Authorised Signatory

c/s
[Signature]
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie Pin - 176304

MUCK DUMPING PLAN FOR CHANED SMALL HYDRO PROJECT (1 MW)

Sr. No.	Name Of Component From Where Muck Is To Be Produced	Actual Size Of Component In sqm	Total Qty. Of Muck Is To Be Produced (in cum)	Factor Of Increase In Volume After Excavation	Total Qty. Of Muck To Be Dumped On The Basis Of Increased Qty (In cum)	Qty OF Muck To Be Utilised (In cum)	Total Qty Of Muck Remaining After Utilisation	Name Of Dumping Place	Size	Area Of Dumping Place In sqm	Remaining Height Of Muck Dumped	Capacity Of Muck To Be Dumped	Quantity to be Dumped	Remarks	
1	Weir Site	30.00 x 14.80	222	0.45	322.00	80.50	241.50	Muck Dumping Site III near Weir Site, Conveyance Channel, D-tank, Spillway & Open Channel	10.00 x 8.00	80.00	5.6	448.00	417.95	Out Of Total Muck Generated About 40% Shall Be Used In Construction Of Crates, Protection Of Weir, Retaining Walls & Rest Of The Muck Including Swell Factor (45%) Shall Be Dumped In Muck Dumping Sites III.	
3	Conveyance Channel	46.67 x 3.00	56.00		81.21	20.30	60.90								
4	Desilting Tank	17.00 x 5.00	106.25		154.06	38.52	115.55								
6	Water Conductor Open	1092.00 x 3.00	262.08		380.02	171.01	209.01	Muck Dumping Site II Near Forebay	8.00 x 8.00	64.00	5.2	332.80	308.28	Out Of Total Muck Generated About 40% Shall Be Used In The Protection Work, Strengthening And Construction Of Crates, And Balance including The Swell Factor (45%) shall be dumped in site II	
7	Spillway	85.00 x 2.00	42.5		61.63	15.41	46.22								
8	Forebay Tank	8.00 x 8.13	48.78		70.73	17.68	53.05								
9	Penstock	120.00 x 1.00	90.00		130.50	32.63	97.88	Muck Dumping Site - III near Forebay	20.20 x 10.00	202.00	4.4	888.80	806.06	Out Of Total Muck Generated About 40% Shall Be Used In The Protection Work, Strengthening And Construction Of Crates, And Balance including The Swell Factor (45%) shall be dumped in site I	
10	Power House	44.50 x 24.00	534		774.30	309.72	464.58								
11	Road	160.00 x 4.00	224		324.80	81.20	243.60								
	Total		1585.61			2299.24	766.96	1532.28			346.00	5.07	1669.60	1532.28	

c/s


 Divisional Forest Officer
 Dalhousie Forest Division
 Dalhousie Ptn - 176304

For OHP Project Private Limited
For OHP Project Pvt. Ltd.

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