

**DIVERSION OF 0.6030HA.OF FORESTLAND FOR CONSTRUCTION OF BANUALA BAROOND-II
SMALL HYDRO PROJECT 0.80 MW IN TEHSIL CHURAH DISTRICT CHAMBA (H.P)**

FILE NO .. :FP/HP/HYD/146882/2021

DATE OF PROOSAL :

RECLAMATION PLAN

BANUALA BAROOND-II HYDRO PROJECT(0.80 MW) DISTRICT CHAMBA (H.P)

Dumping site for disposal of muck have been identify 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 Sqm
1	Dumping site -I	Prabha	62/2/2	312.00
2	Dumping site -II	Prabha	62/2/6	152.00
3	Dumping site--III	Prabha	62/2/9	162.00

Rehabilitation proposal

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

Afforestation

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

Retaining Walls

RR Masonry/GI wire crate filled with boulders/ stones reclaimed fro. 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 crates , stone masonry work 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 be properly leveled after the completion of the project. The area will be landscaped the plantation carried out so to merge with the nature surroundings.

Location of dumping	Area in Sqm.	Slope of dumping place in degree	Qty. of muck generated (CU.MTR)	Qty. with Swell Factor(CU.MTR) @45%	Qty. muck to used(CUM.Mtr)	Qty.of muck deposited (Cu.mtr)	Height of dumping expected in mtr.
Dumping site -I	312.00	15	760	1102	330.60	771.40	2.50
Dumping site -II	152.00	15	430	623.50	249.70	374.10	2.50
Dumping site--III	162.00	15	465	674.25	269.70	404.55	2.50
TOTAL	626		1655	2399.75	850	1550.00	2.50(Standard)

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Sr.no	Description	Mohal	Khasra No.	Area in Sqm	Height	Capacity of dumping site Qty.in cu. mtr
1	Dumping site –I	Prabha	62/2/2	312.00	2.50	780
2	Dumping site –II	Prabha	62/2/6	152.00	2.50	380
3	Dumping site--III	Prabha	62/2/9	162.00	2.50	405

Place : Chamba
Dated :

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MUCK DUMPING PLAN FOR BANJULA BAROOND-II SMALL HYDRO PROJECT (0.80) MW IN DISTT. CHAMBA HP														
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 (45%)	Total Qty. Of Muck is to be Dumped on The Basis Of increased Qty (in cum)	Qty. Of Muck TO Be utilised (in cum)	Total Qty. Of Muck Remainin g After Utilisation	Name of Dumping place	Size of Dumping Sites	Area of Dumping place in sqm	Remainin g Height of Muck Dumped	Capacity of Muck To be Dumped	Quantity to be Dumped	Remarks
1	Intake/Trench WEIR	10x9.7	140	140*45/100=63	203	61	142	Dumping Site-I	20x15.6	312	2.5	780	142	Out of total Muck Generated About 30% Shall Be Used In Construction of Crates and Protection work. Rest of Muck Including Swell Factor (35%) shall be Dumped in muck Dumping site I
2	Conveyance Channel	37x3.05	120	120*45/100=54	174	52.2	121.8						121.8	
4	D-tank cum forebay	16.2x30	210	210*45/100=94.50	304.5	91.35	213.15						213.15	
5	Penstock Pipe	336x3	290	290*45/100=130.50	420.5	126.15	294.35						294.35	
6	Power house and switchyard	30.35x20	340	340*45/100=153	493	197.2	295.8	Dumping Site-II	15.2x10	152	2.5	380	295.8	Out of total Muck Generated About 40% Shall Be Used In Construction of Crates, Aggregates, Protection through R/Walls, B/Walls, Filling, Bearing and Soling. Rest Of The Muck Including Swell Factor (35%) shall be Dumped in muck Dumping sites II
7	Tail Race	42.5x2	90	90*45/100=40.50	130.5	52.5	78.3						78.3	
8	Road	320x4	465	465*45/100=209.25	674.25	269.7	404.55	Dumping Site-III	16.2x10	162	2.5	405	404.55	Out of total Muck Generated About 40% Shall Be Used In Construction of Crates, Aggregates, Protection through R/Walls, B/Walls, Filling, Bearing and Soling of road. Rest Of The Muck Including Swell Factor (35%) shall be Dumped in muck Dumping sites II
Total			1655		2399.75	850.3	1549.95				626 (2.5(Avg))	1565	1549.95	

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Divisional Forest Officer
Chamba Forest Division
CHAMBA-176310

DIVERSION OF 0.6030HA OF FORESTLAND FOR CONSTRUCTION OF BANUALA BAROOND-II
SMALL HYDRO PROJECT 0.80 MW IN TEHSIL CHURAH DISTRICT CHAMBA (H.P)
FILE NO. : FP/HP/HYD/146882/2021
DATE OF PROOSAL :

COST ESTIMATION OF DUMPING SITES & PLANTATION BANUALA BAROOND - II 0.80 MW SHEP

SR. NO.	DESCRIPTION	UNIT	QTY.	RATE (IN Rs.)	AMOUNT (Rs.)
1	Cost of Surveying and Investigation	Lumsum	1	15000	15,000
2	Cost of Carrying of muck to the dumping site and properly stacking.	CUM	1550	50	77,500
3	Earth work for the excavation of Gabion wall i.e trenches of different size with proper depth, removal of bushes and stumps, shoring and bracing etc.	Cum	110	450	49,500
4	Cost of Crate wire 4mm dia with carriage upto site.	Kg	597	83	49,551
5	Providing RR Massionary and Stone Filled Gabion Wire Crates for protection Work.	CUM	180	750	1,35,000
6	Plantation of 270 plants @ Rs 25/- per plant.	Nos	270	25	6,750
7	Digging of pit for plantation.	Nos	270	50	13,500
8	Cost of Barbed wire Fencing for protection of Plants @ Rs. 45/- per plant.	Nos	270	45	12,150
9	Salary for Gardener(1) for 4 years (48 Months) @ Rs.6800/- per month.	Months	48	6800	3,26,400
10	2 Nos. Beldar for protection of plantation for 2 years @ Rs.350/- per day.	Year	2	255000	5,11,000
11	Reclamation and restoration.	Lumsum	1	100000	1,00,000
12	Landscaping and Beautification.	Lumsum	1	80000	80,000
13	Carriage of soil from Road side	Cum	75	500	37,500
14	Collection of Grass seed	Kg	70	600	42,000
15	Broadcasting of Grass seed plants	Nos.	80	400	32,000
Total					14,87,851

Place : Chamba

Dated : 21/3/2022

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Divisional Forest Office
Chamba Forest Division
CHAMBA

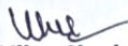
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" ABSTRACT OF COST"

Name of work :- Construction of Banuala Baroond-II SHEP (0.80MW) in Tehsil Churah
Distt. Chamba being executing by M/s New Hydrel Power .

(Sub Head :- CONSTRUCTION OF WIRE CRATES TO THE DUMPING SITES)

S.NO	Item	Qty.	Rate	Unit	Amount
1	Earthwork in excavation for structure as per drawing and technical specifications clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavation suitable materials ordinary soil upto standard depth.	110	450	Per cubic Metre	49,500
2	RR Massionery and laying of boulder apron laid in wire crates with 4 mm dia GI wire conforming to IS:280 and IS :4826 in 100 mm X 100 mm mesh (woven diagonally) including 10 per cent extra for laps and joint laid with stone boulders weighing not less than 25 Kg each as per drawing and technical specifications Clause 1301.	180	750	Per cubic Metre	1,35,000
3	Provide the GI wire of dia 4mm with all costs at site including Transportation and other charges.	597	83	Kg	49,551
				Total	234051.00


Er. Vijay Singh(Civil)

Naman Engineers and Consultants

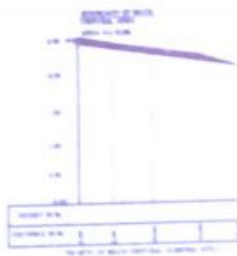
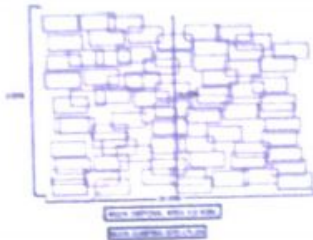


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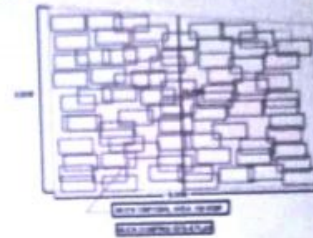
MUCK DUMPING PLAN OF BANUALA BAROOND-II SHEP 0.80 MW

LAYOUT OF MUCK DUMPING SITE AREA



DS-1

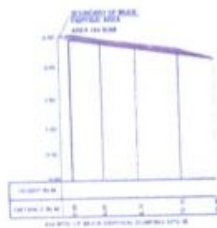
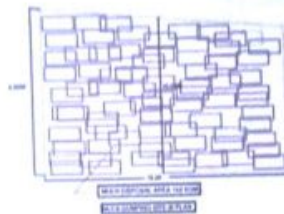
LAYOUT OF MUCK DUMPING SITE AREA



DS-2

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MUCK DUMPING PLAN OF BANUALA BAROOND-II SHEP 0.80 MW



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