

Reclamation Plan for Dumping Site in respect of FCA proposal for Diversion of 25.5963 ha of forest land in favour of HPPWD for the construction of Bhaba Mud Sagnam Attergoo road Km. 0/0 to 44/400 Kms, within the jurisdiction of Kinnaur Forest Division Distt. Kinnaur, H.P.

Diversion of 25.5963 hac. of forest land has been proposed for the construction of Bhaba Mud Sagnam Attergoo road Km. 0/0 to 44/400 Kms, within the jurisdiction of Kinnaur Forest Division Distt. Kinnaur, H.P.

The proposed road naming Attargoo Sagnam Mudh Bhaba road is of total Length 106.330 KM out of which 61.930 Km (From Attargoo to Nimish Khago/ Bhaba Top) is pertaining to HPPWD Kaza Division and 44.400 Km (from Bhaba to Nimish Khago) is proposed to be constructed under HPPWD B&R Division Bhabanagar. The proposed road is having its alignment through forest land falling from Km 0/00 to 7/00 in forest territorial division Kinnaur at Reckong Peo and rest from 7/00 to 44/400 under Wild life division Sarahan. The road will be constructed in cut and fill method. A total quantity of 114040 cum of muck will be generated during the construction of this road. Since after excavation of earth there will be some increase in volume of soil which is calculated @ 40% than total volume of muck generated will 153908.cum. The serviceable material will be stacked at site in the form of stone/aggregate i.e 19160 Cum.10% of muck generated will be used in development of dumping sites. As the road Shall constructed Partially cutting and Partially filling analogy then 40% of generated material shall be used in Leveling work of road and 20 % of muck shall be used in C/O Base and sub base of road. After increase in volume 46172.4Cum muck will have to be disposed off in the identified dumping site as per reclamation plan on dumping sites having area 00-58-88 Hac.

Thus all the muck generated will be dumped in the designated dumping sites. 8 numbers dumping sites designated as D-1, D-2, D-3, D-4, D-5, D-6, D-7 & D-8 that have been identified for dumping of muck/debris to be produced during the construction phase of project. It is proposed that the dumping sites are treated in such a manner that these do not pose any problem to the environment management of the locality. This reclamation plan has been formulated with the following objection:-

- i) To arrest the dumped muck in situ so that it dose find its way to the nearby drainage channels, thus altering the drainage pattern of the area.
- ii) To rehabilitate the dumped areas over a period of time so that it merges with the adjoining natural landscape and does not stand out as a sore point.
- iii) To improve the aesthetic view of the dumping grounds/dumping site by planting suitable plants and trees species thereby increasing the vegetable cover in the areas.
- iv) To stabilize the dumping sites by vegetative and Engineering structure.

Implementation

The proposal will be implemented by the user agency itself at its own cost as detailed in this plan. The implementation of the plan will be supervised by the forest department from time to time and the progress will be periodically monitored. In case of default the sanction of diverted land may be revoked with suitable penalty as decided by the Govt. of India.

Strategy

The two pronged approach will be followed for reclamation of the dumping sites. In the first instance create walls will be erected around the dumping site so that required capacity for dumping of muck is created at the sites. The detailed drawings of the crate works to be

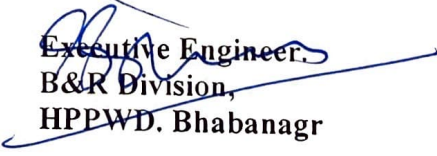
undertaken are enclosed in muck management plan. The primary objective of the crate works will be to arrest the dumped muck to the dumping site and not to allow its spillage to the adjoining are eventually to nearby drainage lines. The capacity of the dumping sites has been calculated i.e. 46670 m³ as detail in the muck management plan and will be enough to hold the muck to be dumped in each of the sites. In the second phase once the dumping is complete it will be ensured that the dumping site is planted with the grasses, bushes shrubs so that it gives an aesthetic look. This vegetal cover will also help in binding the soil and will prevent its erosion for vegetating the dumping sites suitable local species will be preferred. However, it any be noted that bulk of the muck to be dumped will be excavated material which will be lacking in essential nutrients to and organic matter and hence it will be desirable to increase the nutrients status of the top soil to be conducive to tree vegetal growth. For this purpose maturing of the top soil be done if required the imported soil be brought to replenish the top soil. Intently the grasses and bushes will be planted in the area of improved soil condition. Once these grasses and bushes take hold to the site the trees species will be planted, in the next phase. The trees species to be planted will be mainly Deodar (Cedrus deodara), Kail (pinus walichiana), Chir (Pinus roxburghi) BL (Baan). Grasses like Steria and Napier woll also propagated. Trees will be planted at the closer spacing so that canopy is closed at the earliest. Hence the spacing will be kept at 1.5 x 1.5 mtrs. The total area involved in the dumping site is 5858.00 Sqm. Thus in all plants will be planted at the dumping site D1 to D4 and grass in dumping D5 to D8. Shrubs and bushes will be planted in between these trees. The dumping site will be fenced with barbed wire fencing to prevent the entry of the stray cattle thereby ensuring the protection of the plant from grazing. Also due to inter nature of the soil, plant will be extra care for their establishment of or the purpose imported soil/organic manure will be added in each pit for easy establishment of plants. Watering of the plant in dry session will be provided to prevent mortality. The plantation will be further maintained in project cost for ten years when beating up of failure will be done.

The cost estimate of dumping site is enclosed in muck management plan and the cost of trees will be met from the yearly programme of plantation during rainy season. The plantation work will be stated from the year following the completion of dumping site. However erecting of the crate walls around the dumping sites will be done prior to actual dumping.

The total cost of the reclamation Plan is Rs. 171710/- only.

Post reclamation arrangements:

Since the area in question is required by the user agency only for the temporary use of dumping, hence the area will be reverted back to the forest department after implementing the reclamation plan, if so stipulated by Govt. of India. However if at the time of so reverting back the forest department if any activity as per this reclamation plan is found wanting then the forest department may realize the cost of that activity from the user agency at the prevailing wage rates applicable in forest department and may get the same done departmentally at the project cost.


Executive Engineer,
B&R Division,
HPPWD, Bhabanagr

Full Title of The project:- Diversion of 25.5963 ha of forest land in favour of HPPWD for the construction of Bhaba Mud Sagnam Attergoo road Km. 0/0 to 44/400 Kms, within the jurisdiction of Kinnaur Forest Division Distt. Kinnaur, H.P. and Wild Life division Sarhan Distt. Shimla

Eight number Dumping sites On Khsra No. 29/1,4/3 in upmohal Masrang,14/2,12/2,12/3 in up Mohal Dar Niguel and 9/4,10/4 and 8/2 in Dar Thus Kyo. The muck debries excavated during the Construction of Bhaba Mud Sagnam Attergoo road Km. 0/0 to 44/400 Kms will be 46172.4 Cum . after leveling, Dumping site will be Rehabilitated by planting Kail deodar ,ban plants etc. The reclamation Plan for the dumping sites is as unders.

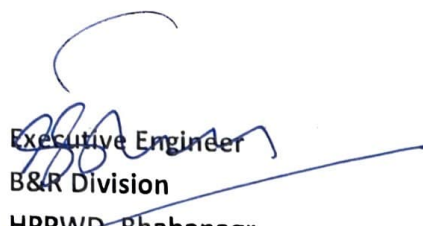
Plantation and fencing dumping area 1,2,3&4.

Year	Area in Hectare of dumping D1,D2,D3 and D4	Rate/Ha. Unit cost of wages 2024-2025	Cost Escalation	C3*C4	Total rate per (C3+C5)	Total Amount
1	2	3	4	5	6	7
0 th Year (Plantation+Fencing)In D1 to D4	.29	124000	10%	12400	136400	39556
1 st Year Maintainance	.29	15200	20%	3040	18240	5289.6
2 nd Year Maintainance	.29	10200	30%	3060	13260	3845.4
3 rd Year Maintainance	.29	5300	40%	2120	7420	2151.8
4 th Year Maintainance	.29	5300	50%	2650	7950	2305.5
5 th Year Maintainance	.29	5300	60%	3180	8480	2459.2
6 th Year Maintainance	.29	5300	70%	3710	9010	2612.9
7 th Year Maintainance	.29	5300	80%	4240	9540	2766.6
8 th Year Maintainance	.29	5300	90%	4770	10070	2920.3
9 th Year Maintainance	.29	5300	100%	5300	10600	3074
10 th Year Maintainance	.29	5300	110%	5830	11130	3227.7
		A				70209


Herbs Plantation/Grass in Dumping 5,6,7& 8 as plantation is not possible the area is lying in alpine Zone

Year	Area in Hectare of dumping D5,D6,D7 and D8	Rate/Ha. Unit cost of wages 2024-2025	Cost Escalation	C3*C5	Total rate per (C3+C5)	Total Amount
1	2	3	4	5	6	7
0 th Year (Plantation+Fencing)In D1 to D4	.29	163500	10%	52156.5	179850	52156.5
1 st Year Maintainance	.29	8000	20%	2784	9600	2784
2 nd Year Maintainance	.29	4900	30%	1847.3	6370	1847.3
3 rd Year Maintainance	.29	3000	40%	1218	4200	1218
4 th Year Maintainance	.29	3000	50%	1305	4500	1305
5 th Year Maintainance	.29	3000	60%	1392	4800	1392
6 th Year Maintainance	.29	3000	70%	1479	5100	1479
7 th Year Maintainance	.29	3000	80%	1566	5400	1566
8 th Year Maintainance	.29	3000	90%	1653	5700	1653

9 th Year Maintainance	.29	3000	100%	1740	6000	1740
10 th Year Maintainance	.29	3000	110%	1827	6300	1827
					B	68967.8
	Total amount	(A+B)		139177		
	Contingency Charges @ 5%			6959		
		Total		146136		
	Departmental Charges @ 17.5%			25574		
		G.Total		₹171710		


 Executive Engineer
 B&R Division
 HPPWD, Bhabanagr


 Divisional Forest Officer
 Arvind Kumar, IFS
 Deputy Conservator of Forests
 Kinnaur Forest Division at R/ Pco H.P.
 At Reckong Peo


 Divisional Forest Officer
 Divisional Forest Officer,
 Sarhan wild life Division
 Distt. Shimla (H.P.)