

# **KUAJHAGAR TANK FROJECT**

**TEHSIL: RATLAM**

**DISTRICT: RATLAM**

## **MUCK DISPOSAL PLAN**

### **1. MUCK MANAGEMENT PLAN**

#### **1.1.1 IMPACT DUE TO MUCK GENERATION**

For construction of different components of the project, surface excavation in earth mixed with boulders, hard soil and disintegrated rock and hard rock would be carried out. The excavation shall result in large quantity of excavated material i.e. muck which shall have to be evacuated, disposed of and roller compacted or laid on mild slopes with the excavation work, to such designated areas where the muck piles do not substantially interfere with either environment / ecology or the river flow regime and cause turbidity impairing the quality of water. The disposal of muck has to be scientifically planned keeping in view the maximum reutilization of much in construction as this being earthen, dam requiring substantial amount of excavated material in construction. Reutilization would reduce / eliminate the transportation, storage and other pollution load on environment due to substantial amount of much excavated from foundation and laying of underground pipe line. The construction of dam and water conductor system for conveyance of water up to farm level would generate substantial amount of muck, as calculated below: -

#### **(a) Muck from Dam's Foundation**

Muck from dam's foundation has been computed by the design wing of WRD. during the preparation of DPR. Quantities received from excavation are given at Table 1 below.

# EARTH WORK UTILIZATION STATEMENT

Earthwork as per Quantity Sheet 132916.89 Cum

## ADDITION

(A) Qty of Benching/Striping	2353.91 Cum
(B) Qty of Nalla clearance	2653.02 Cum
(c) Qty of Nalla clearance	11543.4 Cum
<b>Total E/W</b>	<b>149467.22 Cum</b>

## DEDUCTION

(A) Top Sand layer	1060.31 Cum
(B) Qty of puddle cover	3478.78 Cum
(C) Qty of Boulder Toe Above G.L.	204.19 Cum
(D) Qty of Inclined Filter Sand Layer	272.26 Cum
(E) Qty of Inclined Filter Gravel layer	3524.08 Cum
(F) Qty of Pitching Work (Housing)	3563.11 Cum
<b>Total</b>	<b>12102.73 Cum</b>
<b>NET E/W.</b>	<b>137364.49 Cum</b>

## USE FROM (Hard Soil+ Hard Moorum)

		Cum
(A) Cut off Trench excavation	80%	1094.832 Cum
(B) Flank Slope cutting	80%	2308.68 Cum
(C) Filter & Boulder Toe excavation	80%	3652.2 Cum
(D) Excavation Soil for stripping	80%	94.5 Cum
(E) Excavation of D/S toe drain	100%	57.51 Cum
(F) Spill channel Excavation	80%	11926.648 Cum
		<b>19134.37 Cum</b>

Qty of Earth Work From borrow area	118230.12 Cum
(a) Hearting Soil as per sheet calculation	44174.32 Cum
(b) Casing soil	74055.80 Cum

Table no. 1




A detailed estimate has also been prepared for the material required in construction of the dam, along with the quantity received and requirement of dumping of surplus material or net quantity deficit to be procured / quarried separately and same is given at Table 2 above.

Surplus excavated material which includes remaining hard soil/Hard Murrum 19134.37 cum, disintegrated rock/hard rock 13792.25 cum and Sum Total earth work from embankment of the order of 32926.62 cum, will be utilized during the construction of earthen dam. A dam of total length 270.00 m. (earthen dam), height of 23.54 m. and top width of 5.00 m., will require substantial amount of excavated material during construction.

#### 1.1.2 SELECTION OF MUCK DISPOSAL SITE

Muck requiring disposal from excavation has been estimated as 93890.15 cum. Alternatively,

- (1) This surplus soil will be utilized for refilling of the trenches and the approach road proposed to be constructed for construction work at site and preparation of plat form for machinery.
- (2) During excavation, care will be taken that top fertile soil is kept aside and will be used for re-filling the top area after laying pipe line.
- (3) This top soil will be spread on adjoining farming fields with consent of farmers or alternatively will be used for green belt development.
- (4) Balance muck will be managed by spreading along the route in the low lying areas. As the topography is undulating, such low lying areas are available along the route.
- (5) Any further surplus muck, shall be laid in the community undulating area of the connected villages with the consent of concerning Gram-Panchayat or Janpad Panchyat. They may also be used by nearby Gram Panchayats for construction of village roads etc.

  
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