

**DETAILED NOTE ON THE PROJECT PROVIDING DRINKING WATER SUPPLY UNDER  
TELANGANA WATER SUPPLY PROJECT TO MULUGU ASSEMBLY CONSTITUENCY  
(1 MANDAL) IN WARANGAL DISTRICT.**

**PROJECT COST: Rs 50.00 Crores.**

**Geography:**

As part of the flagship program of Government viz. Telangana Drinking water supply project (TDWSP) this Estimate is prepared for providing drinking water in Mulugu constituency of Warangal District.

Mulugu constituency covers 7 mandals namely Mulugu, Venkatapur, Govindaraopet, SS Thadvai, Eturnagaram, Mangapet and Kothaguda. The total population of this constituency is 285212.

The details of the population of the project are as follows.

Sl.No	Constituency	Mandal	No of Habs	Population			
				Plain	SC	ST	Total
1	2	3	4	5	6	7	8
1	Mulugu	Mulugu	77	40241	7685	14229	62155
2	Mulugu	Venkatapur	59	26619	6873	5468	38960
3	Mulugu	Govindaraopet	35	18850	4178	7678	30724
4	Mulugu	SS Thadvai	50	9520	2293	11934	23747
5	Mulugu	Eturnagaram	52	19829	9852	11364	41045
6	Mulugu	Mangapet	62	31356	6481	10660	48497
7	Mulugu	Kothaguda	82	13232	2470	24382	40084
	<b>Total</b>		<b>417</b>	<b>159647</b>	<b>39832</b>	<b>85715</b>	<b>285212</b>

**Necessity of the project:**

In these mandals, at present in most of the habitations Water supply scheme sources are mainly bore wells. In summer most of the sources are becoming either dry or yielding less water due to depletion of ground water and in some habitations due to poor water bearing capacity of sub-surface strata. As such, people are facing acute shortage of water right from February every year. During every summer and rainy seasons numerous cases of water borne diseases like GE and diahorrea are being reported due to contamination of water.

As the district is covered by various geological formations and erratic rainfall conditions, the availability of ground water is meager and not safe both qualitatively and quantitatively. Because of the shallow basement and lack of secondary porosity, the ground water occurrence is very poor in most part of the district. As far as the water quality is concerned, the ground water is polluted with fluoride, iron, nitrates etc, and it is also prone to bacteriological contamination. In these



circumstances, it is better to supply surface water for drinking water supply schemes rather than ground water. Treatment of ground water is difficult and costlier when compared to surface water.

Priority of the government is to ensure, that every person has enough safe water for drinking, cooking and other domestic needs as well as live stocks throughout the year even during natural disasters by 2018, every rural person should have access to 100lpcd within their household, particularly in to the kitchen without barriers of social or financial discrimination.

There are no existing CPWS schemes or ongoing projects in the Mangapet mandal.

### Source of the Project

Source of the segment is located at Ramnagar(V) of Godavari river, which is located in Eturnagaram Mandal. It is natural fed rain water river and also coming from the upstream areas of Godavari river stretch, so far though the head works is 5Kms away from Godavari River.

The grid is planned to cover 1 mandals in Mulugu constituency for a population of 48497 with a demand of 0.10 TMC. Total length of pipeline required for grid is 122.167 Kms. Head works are located at Kamlapur(V) of Mangapet Mandal, 1 numbers of OHBR of capacity 120KL is proposed at Mallur Gutta to supply water by gravity. Wherever pressure is dropped in the gravity main, sumps are proposed. Total 1 number of 1100 KL clear water sump is required at Kamlapur Head works for the segment. To cover the entire mandal, various sizes of pumps are required. Total cost of the Mangapet sub-segment is **50.00 Crores**

By considering the above source,

1. Providing Drinking water supply to all the 1 Mandal of Mulugu Constituency with Godavari river as source.
2. The total requirement (Ultimate as on 2048) of the proposed drinking water project is **0.10 TMC** from Godavari River.


The following components are proposed in this estimate.

1. Raw water is proposed for drawl from the Godavari river.
2. Pumping main from Head works to OHBR near Mallur Gutta of Mangapet(M) with 350 mm dia MS pipe for 15Kms length is proposed.
3. Clear water sump of 1100 KL capacity at Head works at Kamlapur(V) of Mangapet(M).
4. At Raw Water Intake well VT pumps are proposed.
5. OHBRs of 1100KL are proposed.

6. Pipe line network to connect habitations. The pipe lines are mainly proposed with MS, DI, PCCP, BWSC and HDPE pipes. Further, water supply pipe lines are proposed up to village OHSR point
7. LS provision is incorporated for Dedicated power supply, Transformer Yards, road and Railway crossings, Canal crossings, land acquisition, Forest permissions, Change in Soil Classification, Hard rock Removal and other unforeseen items.
8. Gravity lines with HDPE pipes, DI Pipes & BWSC pipes

Provisions for 5% for VAT, 1% for CESS and contractors profit are made in the estimate.

The Estimate is prepared as per the 2015-16 SSR Rates. The estimate cost arrived at Rs. **50.00**crores for water supply up to village OHSR.

  
Superintending Engineer  
TDWSP Circle Warangal

"Counter Signed"

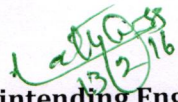
  
Chief Engineer

**RWS&S TDWSP, Hyderabad**

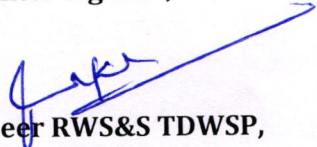


### Details of Surveyors

S.No	Name of the Agency	Details of the instrument used	Persons involved	Duration of Survey
1	M/s Pathfinder Surveyors, Warangal.	DGPS Instrument LEICA Make	Mr. Ratnakar Mr. Vishnuwardhan Mr. Padmakar Mr. Shyam	One month

  
Superintending Engineer  
TDWSP, Circle Warangal

"Counter Signed",

  
Chief Engineer RWS&S TDWSP,  
Hyderabad

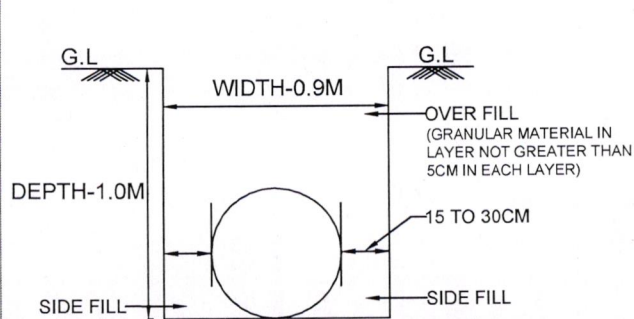
### DETAILS OF FOREST AREA INVOLVED IN MANGAPET SEGMENT-20/2

S.No	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	SET	Dia	Length_mts	Width	Area_Ha	Remarks
1	WARANGAL NORTH	ETURANGARAM	MANGAPETA	MANGAPET	MANGAPET	4	1	350.000	438.176	1.500	0.066	EcoSenZone
2	WARANGAL NORTH	ETURANGARAM	MANGAPETA	MANGAPET	MANGAPET	5	1	125.000	2909.077	1.100	0.320	EcoSenZone
3	WARANGAL NORTH	ETURANGARAM	MANGAPETA	THIMMAMPET	CHERUPALLY EXTN.	7060	2	90.000	3440.787	0.900	0.310	EcoSenZone
4	WARANGAL NORTH	ETURANGARAM	MANGAPETA	THIMMAMPET	CHERUPALLY EXTN.	7060	2	63.000	939.625	0.900	0.085	EcoSenZone
5	WARANGAL NORTH	ETURANGARAM	MANGAPETA	THIMMAMPET	CHERUPALLY EXTN.	7060	2	90.000	603.316	0.900	0.054	EcoSenZone
6	WARANGAL NORTH	ETURANGARAM	MALLUR	MALLUR	MANGAPET	43	3	350.000	169.715	1.500	0.025	Reserve Forest
7	WARANGAL NORTH	ETURANGARAM	MALLUR	MALLUR	MANGAPET	42	3	350.000	2353.655	1.500	0.353	EcoSenZone
8	WARANGAL NORTH	ETURANGARAM	MALLUR	MALLUR	MANGAPET	42	4	75.000	1423.810	0.900	0.128	EcoSenZone
9	WARANGAL NORTH	ETURANGARAM	MANGAPETA	THIMMAMPET	MANGAPET	41	4	140.000	1296.120	1.100	0.143	EcoSenZone
10	WARANGAL NORTH	ETURANGARAM	MANGAPETA	NARSIMHASAGAR	ENCLOSURE	9999	4	125.000	707.261	1.100	0.078	Reserve Forest
11	WARANGAL NORTH	ETURANGARAM	MALLUR	PUREDPAI	PUREDPAI-II	7036	5	140.000	1769.754	1.100	0.195	Reserve Forest
12	WARANGAL NORTH	ETURANGARAM	DOMEDA	DOMEDA	ENCLOSURE	9999	5	140.000	815.741	1.100	0.090	Reserve Forest
13	WARANGAL NORTH	ETURANGARAM	MALLUR	MALLUR	MANGAPET	43	3	-	-	-	0.071	OHBR
14	WARANGAL NORTH	ETURANGARAM	MALLUR	MALLUR	MANGAPET	42	3	-	-	-	0.071	OHBR

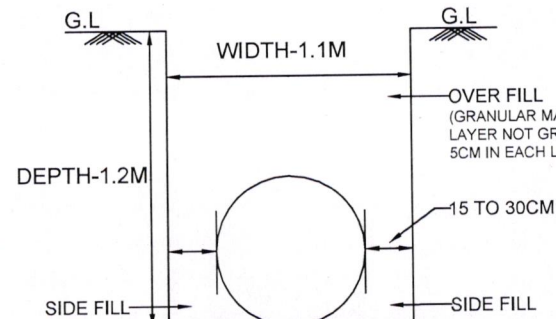
**TOTAL 16867.037 TOTAL 1.989**



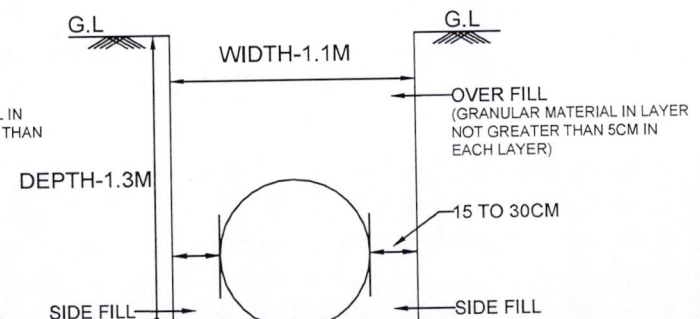
TELANGANA DRINKING WATER SUPPLY PROJECT MANGAPET SEGMENT-20/2  
MAP SHOWING PIPELINE CROSS-SECTION IN FOREST AREA OF WARANGAL.



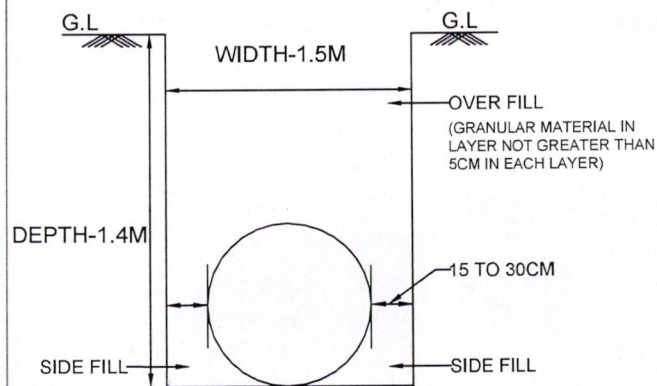
HDPE PIPE DETAIL  
(63 MM TO 140MM)



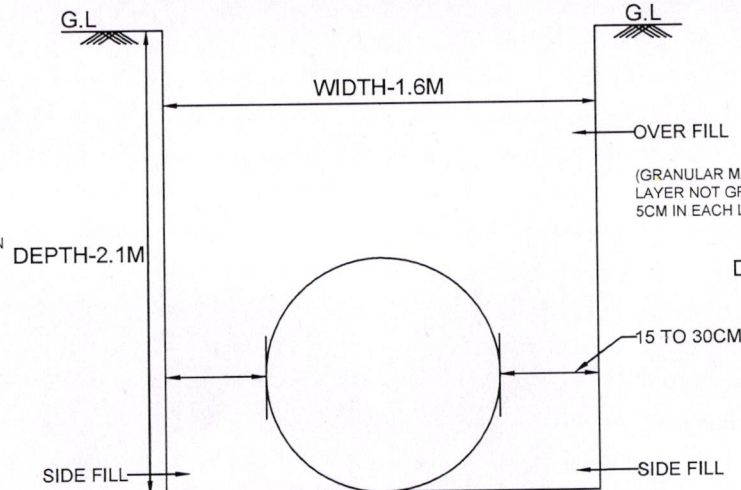
HDPE PIPE DETAIL  
(160 MM TO 250MM)



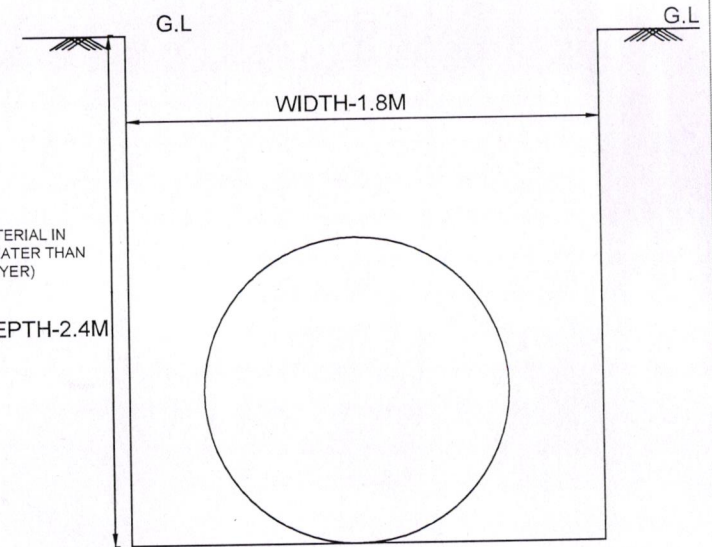
DI PIPE DETAIL  
(200 MM TO 300MM)



DI PIPE DETAIL  
(350 MM TO 450MM)



DI PIPE DETAIL  
(1000 mm)



DI PIPE DETAIL  
(1200 mm)

## Flow Diagram Godavari-Mangapet Project -Segment – 20/2

