Telangana Drinking Water Supply Project - Adilabad

Objectives and Scope:

Telangana drinking water supply project (TDWSP) is the flagship programme of the newly constituted state of Telangana. The State Government has embarked on a vision to provide safe, adequate, permanent and sustainable water supply to rural, urban and industrial areas by 2019. Apart from water for domestic use, the project is planned to meet the water needs of commercial entities, industrial units, Special Economic Zones, etc.

The project will be integrated with the existing and ongoing water supply schemes which are sustainable. Balance surface water requirements will be planned from the proposed Telangana Drinking Water Supply Project. The requirement of water for drinking, cooking, domestic need will be taken into account at 100 liters per capita per day (LPCD) for rural areas, 135 LPCD for municipalities/Nagar Panchayaths and 150 LPCD for municipal corporations. It is planned to supply water at the door step of every household. Samithis headed by women will manage the rural water supply systems at village level.

Need of the Project

The proposed project is to supply water needs of rural, urban, institutional, commercial and industrial excluding GHMC and its surrounding habitations within ORR of Hyderabad.

The following are major challenges in the water supply which promote to go for state wide several water networks(Grid)utilizing surface water sources mainly major irrigation projects and perennial rivers.

i) Ground water depletion

One of the major problems in this sector is depletion of ground water mainly due to over exploitation and short fall in rainfall.

ii) Ground Water Quality

In parts of Telngana ground water contains high concentration of fluoride and iron deposits in the subsurface strata. With depletion of ground water, the concentration of fluoride, iron and salinity is increasing in the ground water outside range of acceptable standard limits for drinking water which leads to provide surface treated water for human consumption. Total 115 quality affected habitations are identified in the districts with excess fluoride (60 Habs), salinity (47 Habs), TDS(0Habs.), Nitrates (7 Habs.) and Iron (1 Habs).However, some of these quality affected habitations are covered in the existing schemes/ongoing schemes with limited supply of quality water.

iii) Ground water pollution

Pollution is also a critical problem both from natural resources, Industrial pollutions, Agriculture pesticides, nitrates and improper disposal of solid and liquid waste etc.,

iv) Sustainability

In water supply sector sustainability of drinking water sources and systems is a major challenge in view of demand for irrigation and adverse seasonal conditions.

v) Increasing demand

Due to change in life styles & urbanization, most of the villagers are demanding household connections and increased level of water supply at their door step. Change in perception of people for better living standards is also leading to increased demand.

vi) Rural Areas and Urban Areas

Presently separate network from even from the same water source is planned for rural areas and urban areas due to which the cost of the project is increasing as the urban areas.

NRDWP Guidelines provides for "Gradual shift from over dependence on ground water to surface water sources, and conjunctive use of ground water, surface water and rainwater".

SALIENT FEATURES OF SEGMENT - 22

The Segment 22 covers 1819 habitations spreaded over 21 Mandals and Kaghaznagar & Bellampally Muncipalities in 4 Assembly constituencies namely Sirpur, Bellampalli, Asifabad & Khanapur. The raw water will be collected from Komarambheem reservoir near Ada village from where the water will be pumped to headwork's near Manikguda of Asifabad Mandal & Dhanora of Kerimeri Mandal. Manikguda Gutta 1600KL GLBR serves 11 Mandals namely Bellampalli, Tandur, Bheemini, Nennel, Vemanapally, Kasipet, Kaghaznagar, Dahegaon, Sirpur T, Kowatala, Bejjur and Manikguda Gutta 350 KL GLBR serves 3 mandals namely Asifabad, Wankidi, Rebbana. Whereas the clear water sump at Dhanora Head works serves 7 mandals namely Kerimeri, Jainoor, Sirpur U, Tiryani, Narnoor, Utnoor, Indervelly.

Executive Engineer
RWS&S TDWSP
Asifabad

Superintending Engineer
RWS&S TDWSP,
Nirmal (Circle).

"Counter Signed"

Chief Engineer
RWS&S TDWSP,Hyderabad

Details of survey instruments

S.No	Name of the agency	Details of instrument used	Persons involved	Duration of survey
1	Vardhaman Engineers and consultance	DGPS instrument: OMNISTAR(Trimble), LEICA	Mr.Amarendher Mr.praveen Mr.Upendher	Nov, Dec 2015 & Jan 2016

Executive Engineer,
TDWSP, Asifabad

Superintending Engineer,
TDWSP, Nirmal

"Counter Signed"

Chief Engineer,
TDWSP, Hyderabad.

DETAILS OF FOREST AREA INVOLVED IN KOWTALA SEG-22/1, ADILABAD DISTRICT

S.NO	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	Set	Dia	Length_mt	Width_mt	Area
1	2	3	4	5	6	7	8	9	10	11	12
1	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	162	1	800	1780.947	2.10	0.374
2	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	162	1	200	2153.197	0.90	0.194
3	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	162	1	200	582.626	0.90	0.052
4	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	110	356.849	0.70	0.025
5	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	600	571.276	1.20	0.069
6	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	600	275.283	1.20	0.033
7	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	500	63.970	1.10	0.007
8	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	110	592.830	0.70	0.041
9	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	1050	15.153	2.20	0.003
10	KAGAZNAGAR	SIRPUR	MUTHAMPET	MUTHAMPET	MUTHYAMPET	161	1	-	-	GLBR	0.037
11	KAGAZNAGAR	KARJELLI	ANKODA	GUDLABORI	RAVANPALLY	165	2	110	839.656	0.70	0.059
12	KAGAZNAGAR	KARJELLI	ANKODA	GUDLABORI	RAVANPALLY	165	2	140	620.800	0.70	0.043
13	KAGAZNAGAR	KARJELLI	ANKODA	GUDLABORI	GANGAPUR	168	2	90	1707.240	0.70	0.120
14	KAGAZNAGAR	KARJELLI	ANKODA	ANKODA	GUDEM	174	3	110	3818.641	0.70	0.267
15	KAGAZNAGAR	KARJELLI	ANKODA	ANKODA	GANGAPUR	170	3	110	697.522	0.70	0.049
16	KAGAZNAGAR	KARJELLI	KARJELLY	KARJELLY	GUDEM	185	4	150	4623.127	0.90	0.416
17	KAGAZNAGAR	KARJELLI	GUDEM	KEETHANI	GUDEM	183	4	150	1796.565	0.90	0.162
18	KAGAZNAGAR	KARJELLI	GUDEM	DIMDA	GUDEM	179	5	90	2231.910	0.70	0.156
19	KAGAZNAGAR	KARJELLI	GUDEM	DIMDA	GUDEM	182	5	140	3840.754	0.70	0.269
20	KAGAZNAGAR	KARJELLI	GUDEM	DIMDA	GUDEM	192	5	75	453.066	0.70	0.032
21	KAGAZNAGAR	KARJELLI	GUDEM	DIMDA	GUDEM	192	6	125	3182.545	0.70	0.223
22	KAGAZNAGAR	KARJELLI	GUDEM	GUDEM	GUDEM	194	6	75	823.884	0.70	0.058
23	KAGAZNAGAR	BIJJUR	KUSHANPALLY	MOGELLY	GUDEM	208	7	100	4980.204	0.70	0.349
24	KAGAZNAGAR	BIJJUR	KUSHANPALLY	MOGELLY	GUDEM	208	7	75	185.871	0.70	0.013
25	KAGAZNAGAR	BIJJUR	KUSHANPALLY	MOGELLY	GUDEM	217	7	63	463.522	0.70	0.032
26	KAGAZNAGAR	BIJJUR	KUSHANPALLY	MOGELLY	GUDEM	217	7	75	240.678	0.70	0.017
27	KAGAZNAGAR	BIJJUR	KUSHANPALLY	INDERGAON	GUDEM	219	7	100	3953.382	0.90	0.356
28	KAGAZNAGAR	SIRPUR	DABBA	DABBA	KADAMBA	110	8	75	1767.773	0.70	0.124
29	KAGAZNAGAR	SIRPUR	DABBA	DABBA	KADAMBA	110	8	500	3921.286	1.10	0.431
30	KAGAZNAGAR	BIJJUR	SULGUPALLY	KUNTALAMANEPALLY	BIJJUR	221	9	500	698.858	1.10	0.077
31	KAGAZNAGAR	BIJJUR	SULGUPALLY	KUNTALAMANEPALLY	BIJJUR	221	9	500	3897.224	1.10	0.429
32	KAGAZNAGAR	BIJJUR	SULGUPALLY	KUNTALAMANEPALLY	BIJJUR	224	9	450	1966.909	1.00	0.197
						TOTAL			53103.548		4.714

Superintending Engineer,
TDWSP, Nirmal

'Counter Signed"

Chief Engineer,
TDWSP, Hyderabad

AREA STATEMENT - KOWTALA SEGMENT - 22 /1- ADBD						
Set	Structure type	Pipe Dia	Length in m	width m	Area_Ha	Total area in Ha
1	PIPELINE	800.00	1780.947	2.100	0.374	0.835
	PIPELINE	110.00	356.849	0.700	0.025	
	PIPELINE	200.00	2153.197	0.900	0.194	
	PIPELINE	600.00	571.276	1.200	0.069	
	PIPELINE	600.00	275.283	1.200	0.033	
	PIPELINE	500.00	63.970	1.100	0.007	
	PIPELINE	110.00	592.830	0.700	0.041	
	PIPELINE	200.00	582.626	0.900	0.052	
	PIPELINE	1050.00	15.153	2.200	0.003	
	GLBR				0.037	
2	PIPELINE	90.00	1707.240	0.700	0.120	0.222
	PIPELINE	110.00	839.656	0.700	0.059	
	PIPELINE	140.00	620.800	0.700	0.043	
3	PIPELINE	110.00	3818.641	0.700	0.267	0.316
	PIPELINE	110.00	697.522	0.700	0.049	
4	PIPELINE	150.00	4623.127	0.900	0.416	0.578
	PIPELINE	150.00	1796.565	0.900	0.162	
5	PIPELINE	90.00	2231.910	0.700	0.156	0.457
	PIPELINE	75.00	453.066	0.700	0.032	
	PIPELINE	140.00	3840.754	0.700	0.269	
6	PIPELINE	75.00	823.884	0.700	0.058	0.281
	PIPELINE	125.00	3182.545	0.700	0.223	
7	PIPELINE	100.00	5870.275	0.700	0.411	0.767
	PIPELINE	100.00	3953.382	0.900	0.356	
8	PIPELINE	75.00	1767.773	0.700	0.124	0.555
	PIPELINE	500.00	3921.286	1.100	0.431	
9	PIPELINE	450.00	1966.909	1.000	0.197	0.703
	PIPELINE	500.00	698.858	1.100	0.077	
	PIPELINE	500.00	3897.224	1.100	0.429	
TOTAL			53103.548		4.714	4.714

Executive Engineer
TDWSP, Asifabad

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TDWSP, Nirmal

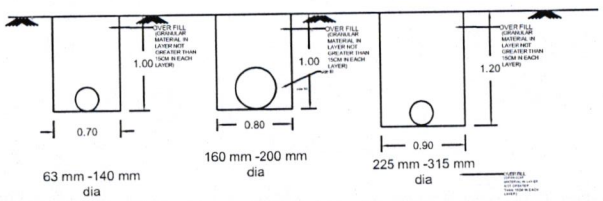
'Counter Signed"

Chief Engineer,
TDWSP, Hyderabad

TELANGANA DRINKING WATER SUPPLY PROJECT SEGMENT- 22 ADIL ABAD DIST.

SECTION SHOWING THE PIPELINE CROSS SECTIONS

HDPE PIPES:

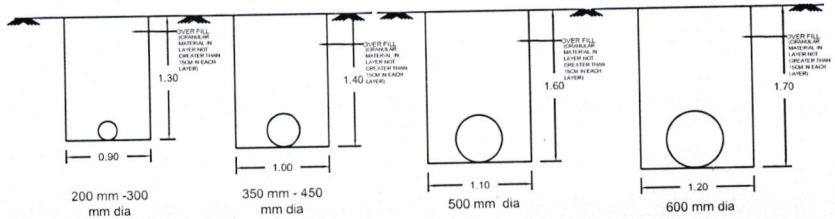


63 mm -140 mm dia

160 mm -200 mm dia

225 mm -315 mm dia

DI PIPES:



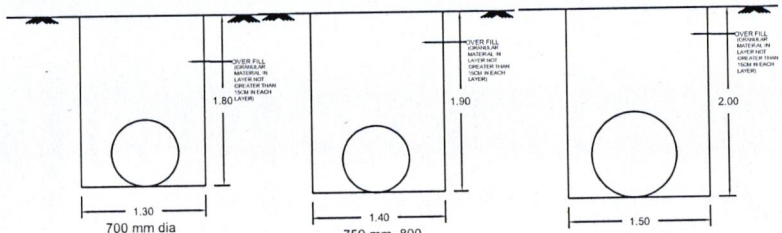
200 mm -300 mm dia

350 mm - 450 mm dia

500 mm dia

600 mm dia

DI PIPES:

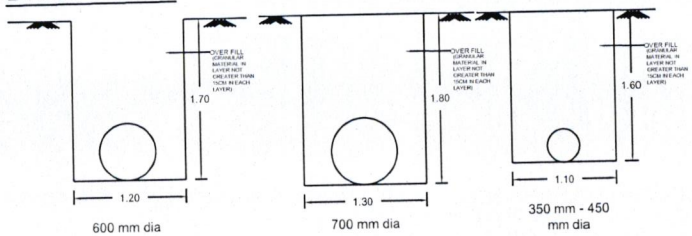


700 mm dia

750 mm -800 mm dia

900 mm dia

BWSC PIPES:

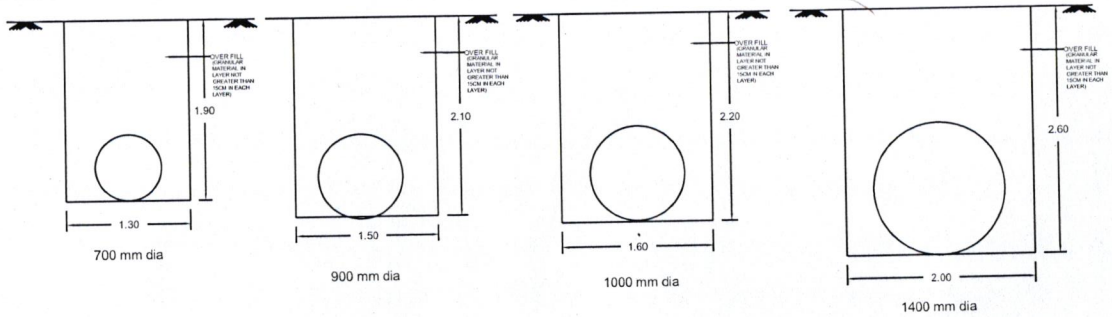


600 mm dia

700 mm dia

350 mm - 450 mm dia

MS PIPES:



700 mm dia

900 mm dia

1000 mm dia

1400 mm dia

ALL DIMENSIONS ARE IN METRES
UNLESS OTHERWISE SPECIFIED

EE ITDA WSP
Adilabad

FLOW CHART SHOWING PIPE LINE UNDER KOWTALA SEGMENT-22/1, ADILABAD DISTRICT.