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 - 21

The Segment 21 covers 869 habitations spreaded over 21Mandals and Nirmal, AdilabadMuncipality in 3 Assembly constituencies namely Nirmal, Boath and Adilabad. The raw water will be collected from back waters of SRSP back waters near Local velmal village from where the water will be pumped to headwork's near Madegaon of Dilawarpur mandal. Madegaon OHBR serves Dilawarpur and Sarangapur mandals and further clear water will be pumped to the GLBR at Arepally of Neredigonda mandal to cover Boath, Neredigonda and Mamada mandals. The Clear water will be carried from fromArepally GLBR to Babuldhole GLBR to cover Ichoda, Bazarhathnur and Gudihathurmandals. Futrther the clear water carried from babuldhole GLBR to Adilabad BPT to cover Jainath and Belamandals.the clear water carried from Adilabad BPT to SunkidI GLBR to cover Talamadugu and Thamsimandals.

Coverage to the Industries

There are many Industries existing and proposed in the Project Area. It is decided to provide 0.324 TMC of Water to Industries in the present Water Segment. And it is also decided to lay separate lines to meet the additional Industrial Demand in future if required directly from SRSP or any other alternate sources if available

EE/TDWSP/Nirmal

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

EE/TDWSP/Nirmal

Superintending Engineer,
TDWSP, Nirmal

"Counter Signed"

Chief Engineer,
TDWSP, Hyderabad.

DETAILS OF FOREST AREA INVOLED IN CHENCHUGHAT SEG-21/2, ADILABAD DISTRICT											
S NO	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	SET	Dia	lengthf	Width	areaf
1	ADILABAD	ADILABAD	ADILABAD	YAPALGUDA	YAPALGUDA_II	240	1	250.00	808.882	0.90	0.073
2	ADILABAD	ADILABAD	ADILABAD	YAPALGUDA	SATNALA	263	2	350.00	903.672	1.20	0.108
3	ADILABAD	ADILABAD	TOYAGUDA	ANKOLI	SATNALA	264	2	125.00	239.585	0.70	0.017
4	ADILABAD	ADILABAD	TOYAGUDA	ANKOLI	SATNALA	264	2	300.00	34.400	0.90	0.003
5	ADILABAD	ADILABAD	TOYAGUDA	ANKOLI	SATNALA	317	3	110.00	4454.800	0.70	0.312
6	ADILABAD	ADILABAD	ADILABAD	TANTOLI	SATNALA	362	4	1800.00	603.395	8.00	0.106
7	ADILABAD	INDERVELLY	MUTHNUR	TOSHAM	SATNALA	362	4	63.00	1174.806	0.90	0.483
8	ADILABAD	INDERVELLY	MUTHNUR	TOSHAM	SATNALA	362	4	-	-	-	0.070
9	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	266	5	75.00	1515.650	0.70	0.106
10	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	267	6	3150.00	462.954	7.00	0.476
11	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	269	6	250.00	3963.331	1.20	0.324
12	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	267	6	-	-	-	0.125
13	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	268	7	200.00	532.961	1.00	0.333
14	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	268	7	63.00	522.005	0.70	0.053
15	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	315.00	2731.760	1.22	0.037
16	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	90.00	199.729	0.70	0.014
17	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	600.00	17.500	8.00	0.014
18	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	63.00	837.340	0.90	0.075
19	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	63.00	840.313	0.90	0.076
20	ADILABAD	ADILABAD	TOYAGUDA	TOYAGUDA	SATNALA	312	7	-	-	-	0.125
21	ADILABAD	ADILABAD	TOYAGUDA	ANKOLI	SATNALA	348	8	63.00	763.036	0.70	0.053
22	ADILABAD	ADILABAD	TOYAGUDA	ANKOLI	SATNALA	348	8	140.00	419.753	0.70	0.029
23	ADILABAD	INDERVELLY	INDERVELLY	INDERVELLY	SATNALA	348	9	75.00	1350.241	0.70	0.037
24	ADILABAD	INDERVELLY	INDERVELLY	INDERVELLY	SATNALA	349	9	75.00	3053.710	0.70	0.095
25	ADILABAD	INDERVELLY	INDERVELLY	INDERVELLY	SATNALA	347	9	75.00	526.803	0.70	0.019
26	ADILABAD	INDERVELLY	INDERVELLY	INDERVELLY	SATNALA	342	9	75.00	264.820	0.70	0.214
27	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	351	10	63.00	2347.972	0.70	0.164
28	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	340	10	63.00	347.741	0.70	0.024
29	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	340	10	90.00	449.887	0.70	0.031
30	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	340	10	90.00	248.536	0.70	0.017
31	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	355	11	110.00	1482.402	0.70	0.104

S NO	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	SET	Dia	lengthf	Width	areaf
32	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	355	11	63.00	1794.285	0.70	0.126
33	ADILABAD	ADILABAD	BELA	DOWNA	SATNALA	278	12	75.00	408.114	0.70	0.029
34	ADILABAD	INDERVELLY	INDERVELLY	SAYEEDPUR	SATNALA	319	12	75.00	125.691	0.70	0.063
35	ADILABAD	ADILABAD	BELA	DOWNA	SATNALA	272	12	75.00	893.361	0.70	0.009
36	ADILABAD	ADILABAD	BELA	BHADI	SATNALA	280	13	63.00	3472.023	0.70	0.243
37	ADILABAD	ADILABAD	BELA	DOWNA	SATNALA	279	13	90.00	3404.557	0.70	0.238
38	ADILABAD	ADILABAD	BELA	BHADI	SATNALA	283	14	63.00	2041.464	0.70	0.143
39	ADILABAD	ADILABAD	BELA	BHADI	SATNALA	281	15	300.00	1457.167	0.90	0.131
TOTAL									44694.646		4.698

"Counter Signed"

EE/TDWSP/Nirmal

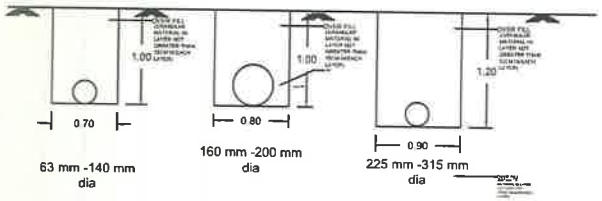
Superintending Engineer,
TDWSP, Nirmal

Chief Engineer,
TDWSP, Hyderabad.

TELANGANA DRINKING WATER SUPPLY PROJECT SEGMENT-'21 ADIL ABAD DIST.

SECTION SHOWING THE PIPELINE CROSS SECTIONS

HDPE PIPES:

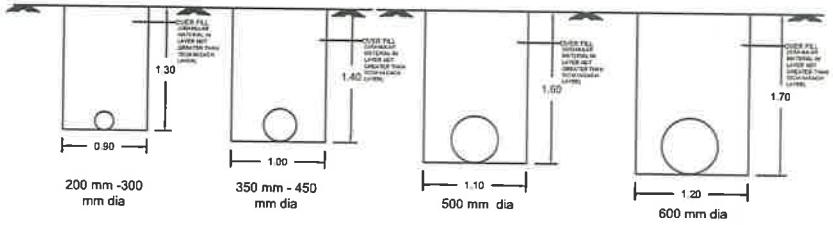


63 mm -140 mm dia

160 mm -200 mm dia

225 mm -315 mm dia

DI PIPES:



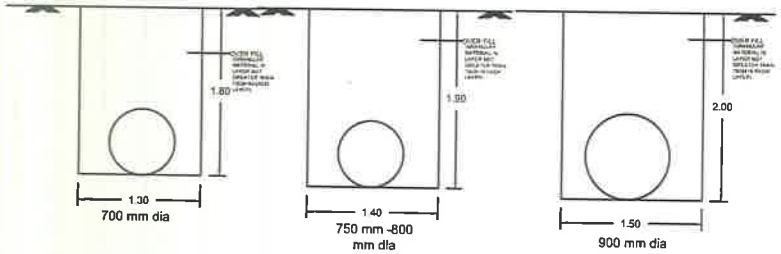
200 mm -300 mm dia

350 mm - 450 mm dia

500 mm dia

600 mm dia

DI PIPES:

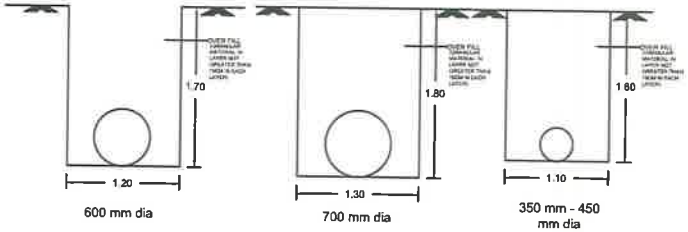


700 mm dia

750 mm -800 mm dia

900 mm dia

BWSC PIPES:

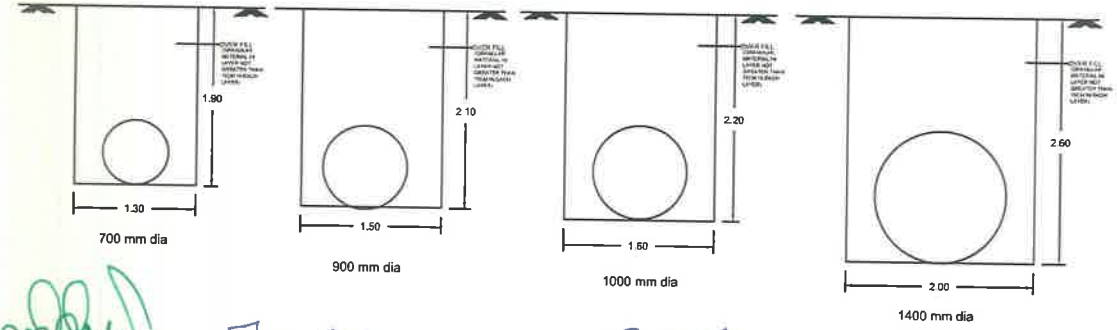


600 mm dia

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

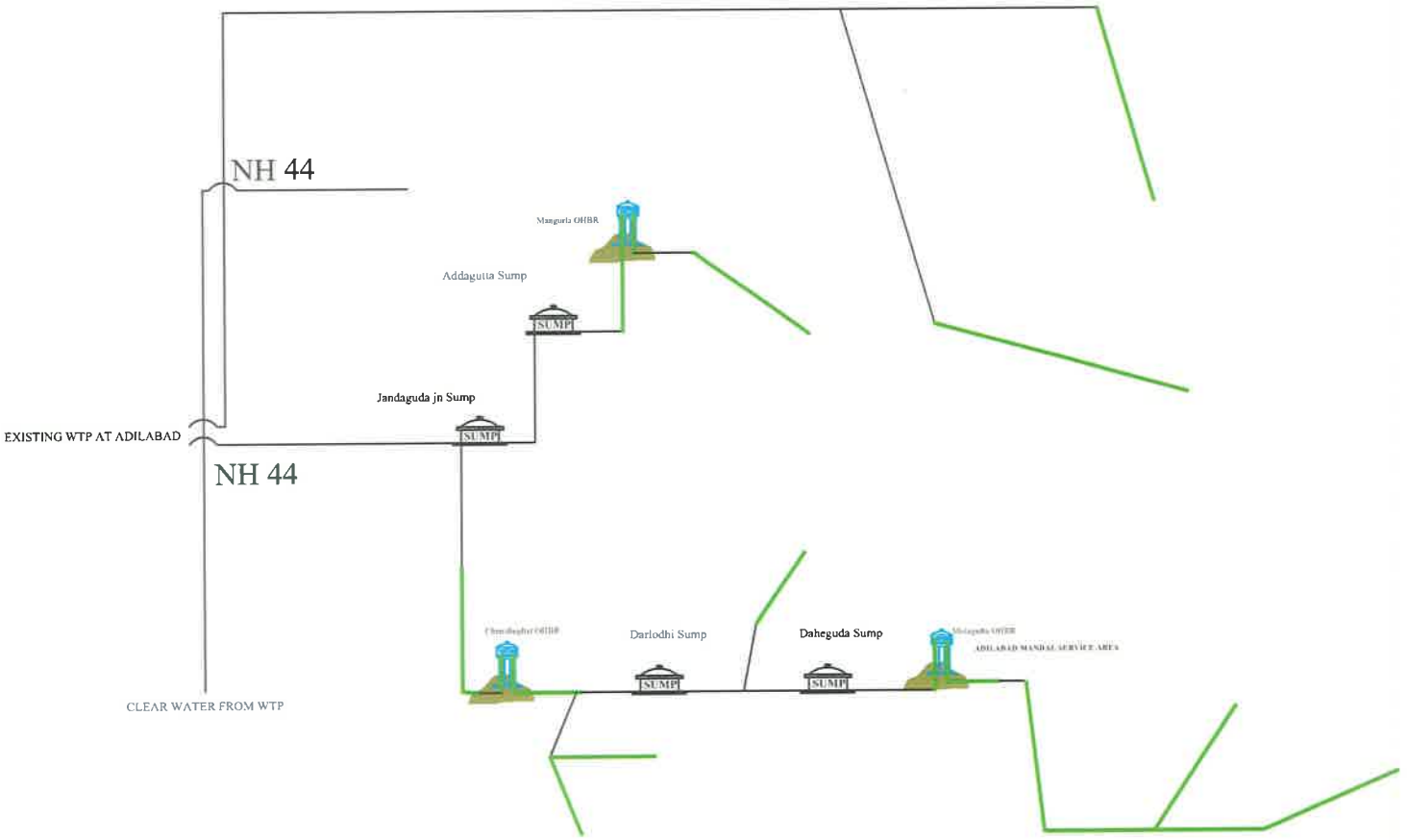
EE/TDWSP/Normal

AREA STATEMENT OF CHENCHUGHAT SEGMENT-21/2						
Set No.	Type of Structure	Dia	Length	Width	Area_Ha	Total Area in Ha.
1	PIPELINE	250.00	808.882	0.90	0.073	0.073
2	PIPELINE	350.00	903.672	1.20	0.108	0.128
	PIPELINE	125.00	239.585	0.70	0.017	
	PIPELINE	300.00	34.400	0.90	0.003	
3	PIPELINE	110.00	4454.800	0.70	0.312	0.312
4	PIPELINE	63.00	1174.806	0.90	0.106	0.658
	PIPELINE	1800.00	603.395	8.00	0.483	
	OHBR				0.070	
5	PIPELINE	75.00	1515.650	0.70	0.106	0.106
6	PIPELINE	250.00	3963.331	1.20	0.476	0.925
	PIPELINE	3150.00	462.954	7.00	0.324	
	OHBR				0.125	
7	PIPELINE	315.00	2731.760	1.22	0.333	0.727
	PIPELINE	200.00	532.961	1.00	0.053	
	PIPELINE	63.00	522.005	0.70	0.037	
	PIPELINE	90.00	199.729	0.70	0.014	
	PIPELINE	600.00	17.500	8.00	0.014	
	PIPELINE	63.00	837.340	0.90	0.075	
	PIPELINE	63.00	840.313	0.90	0.076	
	OHBR				0.125	
8	PIPELINE	63.00	763.036	0.70	0.053	0.083
	PIPELINE	140.00	419.753	0.70	0.029	
9	PIPELINE	75.00	526.803	0.70	0.037	0.364
	PIPELINE	75.00	1350.241	0.70	0.095	
	PIPELINE	75.00	264.820	0.70	0.019	
	PIPELINE	75.00	3053.710	0.70	0.214	
10	PIPELINE	63.00	2347.972	0.70	0.164	0.238
	PIPELINE	63.00	347.741	0.70	0.024	
	PIPELINE	90.00	449.887	0.70	0.031	
	PIPELINE	90.00	248.536	0.70	0.017	
11	PIPELINE	110.00	1482.402	0.70	0.104	0.229
	PIPELINE	63.00	1794.285	0.70	0.126	
12	PIPELINE	75.00	408.114	0.70	0.029	0.100
	PIPELINE	75.00	893.361	0.70	0.063	
	PIPELINE	75.00	125.691	0.70	0.009	
13	PIPELINE	63.00	3472.023	0.70	0.243	0.481
	PIPELINE	90.00	3404.557	0.70	0.238	
14	PIPELINE	63.00	2041.464	0.70	0.143	0.143
15	PIPELINE	300.00	1457.167	0.90	0.131	0.131
TOTAL			44694.646		4.698	4.698

Superintndenting Engineer,
TDWSP,Nirmal Circle.

Chief Engineer,
TDWSP,Hyderabad.

FLOW CHART SHOWS PIPELINE IN FOREST OF CHENCHUGHAT SEGMENT -21/2. ADILABAD DISTRICT



Note:

Red Line-Pipe line in forest

PROJECT: TELANGANA DRINKING WATER SUPPLY PROJECT(TDWSP-CHENCHUGHAT SEGMENT-21/2)