

Enclosure 2

CHECK LIST

For the proposal for Diversion of Forest Lands for non-Forestry purpose under the Forest Conservation Act, 1980 for Linear Projects: Railway/UG Gas Pipeline/Water Pipeline/Optical Fibre/Electricity Lines etc;

State S. No. of Project:				
Date of receipt in NO-PCCF's office:				
Name of the Project:		Laying of Pipe Line for Providing Safe Drinking Water in Nizamabad Dist under Mallannagutta Segment -11/4		
Area proposed for diversion, in Ha:		4.365		
Name of the Forest Division:		Kamareddy & Nizamabad		
Whether area proposed falling in WLS / NP / ESZ / Biosphere Reserve or WL Corridor?		No		
Whether situated in Scheduled Area		No		
S. No.	Name of Document/Information	Provided or Not (Yes/No)	Page No.	Remarks
A	PART-I			
1	Main application Form from Part-I to V with all its columns duly filled up and signed by the competent authority with date, place and their official seal.	Yes	4-12	
2	Detailed note on the project.	Yes	1-4	
3	Full Justification for locating the project in forest area (un-avoidance of the forest area for the purpose)	Yes	13-18	
4	Certificate for minimum use of forest land giving details of the alternatives examined and reasons for their rejection.	Yes	21	
5	Map of the project site forest area demanded on original Survey of India top-sheet in 1:50000 or any other suitable scale; clearly showing forest boundaries and adjoining areas with their land use in distinct colors.	Yes	56	
6	Index Map, if the area is very small, showing forest boundaries and a location map on a larger scale with land use of the area required.	Yes	40-55	
7	Geo-referenced digital data (e00 format, Geographic co-ordinate system WGS 84 datum, readings up to 8 decimal places in degrees) of the boundary/ies of the proposed FL for diversion in Shape file (Soft copy in a DVD along with RAW & post-processed data) and digital map in hard copy duly authenticated by competent authority. *The survey shall be performed using DGPS in real-time or post-processed mode. However the survey may be performed using TS in GPS shadow areas, and data shall be duly geo-referenced using GCPs collected by dual frequency DGPS receivers.	Yes		
8	Make & Model of the DGPS equipment used, Names of the Agency/persons involved in the DGPS survey, period of survey, name of the authenticating agency for the accuracy of the survey.	Yes	31	
9	Linear map or a diagrammatic map of the project site.	Yes	39	
10	Statement showing the details of forest area involved i.e. Division, Range, Beat, Forest Block & Compartment No. wise.	Yes	32-33	
11	Item wise breakup of the forest area proposed for diversion, if any.	Yes	34	
12	Cost Benefit (CB) analysis in prescribed format, wherever required. (For projects involving area of >20 Ha in plains & >5 Ha in hills)	Yes	35	

13	Status of clearance under Environment (Protection) Act, 1986 & Rules 2006; wherever required.	No		
14	Detailed scheme for rehabilitation of project affected persons, wherever required.	No		
15	Minimum distance of the proposed site from Wildlife Sanctuary and/or National Park, if any.	No		
16	To show the existing Water body / Water channel or road, which should be identifiable.	No		
17	To show the newly proposed bridge /culvert / under- ground pass / tunnel etc. to be identify clearly.	No		
18	To enclose the cross section Plan / Map indicating dimension of (Length / Width / Height /depth etc) clearly.	Yes	38	
19	Undertaking to pay the Net Present Value (NPV), Addl. NPV of the forest land involved.	Yes	22	
20	Undertaking to pay the Extraction Charges of the trees to be removed from the forest land involved.	Yes	23	
21	Details of equivalent non-forest land identified for Compensatory Afforestation viz. Survey No., Village, Tahsil /Mandal, District etc. along with map in SOI Topo-sheet in 1:50000 or appropriate scale along with the boundaries of adjoining forest area.	NA		
22	Geo-referenced digital data of CA land (e00 format, Geographic co-ordinate system WGS 84 datum, read- ings up to 8 decimal places in degrees) of the boundary/ ies of the proposed FL for diversion in Shape file (Soft copy in a DVD along with RAW & post-processed data) and digital map in hard copy duly authenticated by competent authority. * The survey shall be performed using DGPS in real-time or post-processed mode. However the survey may be performed using TS in GPS shadow areas, and data shall be duly geo-referenced using GCPs collected by dual frequency DGPS receivers.	NA		
23	Make & Model of the DGPS equipment used, Name/s of the Agency/persons involved in the DGPS survey, period of survey, name of the authenticating agency for the accuracy of the survey.	NA		
24	Certificates a, c, d, g & h under RoFR Act; where Primi- tive Tribal Groups (PTG) & Pre-Agricultural Commu- nities (PAC) are involved in the proposed FL.	Will be submitted to the DFO		
B	Part II			
1	Enumeration list of trees (species and girth class wise) along with Abstract.			
2	Site inspection report, along with photographs, of the forest area involved in the project in prescribed format.			
3	Impact of proposed project on the flora & fauna in the adjoining forests.			
4	Impact of proposed project on the ecology, specially soil erosion in and around the proposed area for mining.			
5	Mitigative measures to prevent loss to flora, fauna & soil erosion in & around the proposed area for the project.			
6	Detailed scheme for Compensatory Afforestation on identified non-forest area/degraded forest area at present wage rates duly signed by DFO and counter signed by the CF concerned.			
7	Certificate from the DFO that non-forest land selected for compensatory afforestation is in a compact block and contiguous to forest area or in close proximity of forest area and suitable from the management and protection point of view.			
8	Soil Suitability Certificate from Divisional Forest Officer that the area identified for compensatory Afforestation is suitable for raising plantation.			

9	Calculation Sheet for arriving at NPV of the proposed area for diversion.			
10	Certificate that no work has been carried out in violation of the FC- & WL act.			
a	if violated, circumstances leading to violation, date of commencement of work, quantity of work done and POR issued & dates inspection of the site of violation by FRO, Sub-DEO, DEO.			
b	Details of disciplinary action initiated or proposed to be initiated against the concerned staff for violation of the provisions of the Act.			
c	Names of the persons of the User Agency for violation & details of the report submitted.			
11	Specific Recommendation of the DFO.			
C	PART III (To be filled in by the CF)			
1	Site inspection report, along with photographs, of the forest area involved in the project in prescribed format, when the area is more than 40 Ha in extent.			
2	Specific Recommendation of the CF.			
3	Any other information/documents attached or conditions stipulated.			

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Superintending Engineer
TDWSP Circle, Nirmal

"Counter Signed"
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Chief Engineer
TDWSP, Hyderabad

Telangana Drinking Water Supply Project - Nizamabad

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 i.e total 3 municipalities/Nagar Panchayaths and 1 Municipal Corporation which are scattered in the District in between rural habitations.

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 - 11

The Segment 11 covers 860 habitations spreaded over 20 Mandals and Nizamabad, Armoor & Kamareddy Municipality in 5 Assembly segments namely Balkonda, Armoor, Nizamabad, Kamareddy and Part of Yellareddy. The raw water will be collected from back waters of SRSP back waters near Jalalpur village from where the water will be pumped to headwork's near Jalalpur which will be further pumped to the near by OHBR to cover Balkonda, Morthad & Kamarpally Mandals. The Raw water will be pumped to Argul head works near Armoor. From this headworks water will be treated and pumped to the OHBR's/ GLBR's proposed on the near by hillock in order to provide clear water to Armoor, Nandipet, Makloor, Bheemgal, Vailpur and Jakranpally mandals and balance requirement of Nizamabad Municipality and Armoor Municipality. Further raw water is pumped from Argul to head works near Indalwai where water is treated and pumped to OHBR on hillock to cover Nizamabad, Dichpally, Dharpally and Sirikonda mandals by gravity. Further from Indalwai raw water is pumped from Indalwai to Mallannagutta. In Mallannagutta water is treated and pumped to OHBRs located near by hillock to cover Kamareddy, Machareddy,

Bhiknoor, Domakonda, SS Nagar, Tadwai, Gandhari mandals and balance requirement of Kamareddy Municipality.

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

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**Superintending Engineer
TDWSP (Circle) Nirmal**

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**Chief Engineer
TDWSP, Hyderabad**

Details of survey instruments

S.No	Name of the agency	Details of instrument used	Persons involved	Duration of survey
1	M/S Pallavi Surveyors, Hyderabad	DGPS instrument: Spectra make Precision	Mr. Anil Kumar Mr. Kulai Reddy Mr. Sampath Mr. Praveen	Oct, Nov 2015

Superintending Engineer,
TDWSP, Nirmal

"Counter Signed"

Chief Engineer,
TDWSP, Hyderabad.

Chief Engineer
TDWSP, Hyderabad



DETAILS OF FOREST AREA INVOLVED IN MALLANNAGUTTA SEG-11/4 NIZAMABAD DISTRICT

S.NO	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	Set	Dia	Length_mt	Width_mts	Area
1	2	3	4	5	6	7	8	9	10	11	12
1	KAMAREDDY	GANDHARI	MUDHELLY	GOWRARAM(G)	ENCLOSURE	9999	1	63	924.031	0.70	0.065
2	KAMAREDDY	GANDHARI	MUDHELLY	GOWRARAM(G)	ENCLOSURE	9999	1	75	1170.843	0.70	0.082
3	NIZAMABAD	BANSWADA	RAMPUR	IBRAHIMPET	ENCLOSURE	9999	1	75	2563.115	0.70	0.179
4	KAMAREDDY	GANDHARI	MUDHELLY	MUDHELLY	ENCLOSURE	9999	2	90	4122.473	0.70	0.289
5	KAMAREDDY	GANDHARI	CHEDMAL	CHEDMAL	GANDHARY I	757	3	180	524.464	0.80	0.042
6	KAMAREDDY	GANDHARI	MUDHELLY	GANDIVATE	ENCLOSURE	9999	3	200	1912.589	0.80	0.153
7	KAMAREDDY	GANDHARI	MUDHELLY	GANDIVATE	ENCLOSURE	9999	3	63	329.193	0.70	0.023
8	KAMAREDDY	GANDHARI	MUDHELLY	GANDIVATE	ENCLOSURE	9999	3	63	380.557	0.70	0.027
9	KAMAREDDY	GANDHARI	MUDHELLY	GANDIVATE	VELLUTLA I	798	3	63	733.420	0.70	0.051
10	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	ENCLOSURE	9999	4	200	1473.807	0.90	0.133
11	KAMAREDDY	GANDHARI	MUDHELLY	GANDIVATE	ENCLOSURE	9999	4	200	373.290	0.90	0.034
12	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	GANDHARY I	771	4	200	14.193	2.00	0.003
13	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	GANDHARY I	771	4	-	-	-	0.026
14	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	GANDHARY I	773	5	280	919.224	0.90	0.083
15	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	GANDHARY I	773	5	63	3171.713	0.70	0.222
16	KAMAREDDY	GANDHARI	GANDHARI	POTHANGAL	GANDHARY I	772	5	125	1893.763	0.70	0.133
17	KAMAREDDY	GANDHARI	GANDHARI	GURJAL	NO-DATA	785	6	75	509.917	0.70	0.036
18	KAMAREDDY	GANDHARI	GANDHARI	GURJAL	GANDHARY II	748	6	180	2151.402	0.90	0.194
19	KAMAREDDY	GANDHARI	GANDHARI	GURJAL	GANDHARY II	748	6	75	469.665	0.70	0.033
20	KAMAREDDY	GANDHARI	GANDHARI	GANDHARI	GANDHARY I	767	7	63	1060.271	0.70	0.074
21	KAMAREDDY	GANDHARI	GANDHARI	GANDHARI	GANDHARY I	767	7	250	715.777	0.90	0.064
22	KAMAREDDY	GANDHARI	GANDHARI	GANDHARI	GANDHARY I	767	7	500	362.044	3.00	0.109
23	KAMAREDDY	GANDHARI	GANDHARI	GANDHARI	GANDHARY I	767	7	250	333.526	0.90	0.030
24	KAMAREDDY	GANDHARI	GANDHARI	GANDHARI	GANDHARY I	767	7	-	-	-	0.054
25	KAMAREDDY	GANDHARI	CHEDMAL	UTHNOOR	THIPPARAM	746	8	125	3409.268	0.70	0.239
26	KAMAREDDY	GANDHARI	CHEDMAL	YACHARAM	MANCHIPPA EXT	743	9	90	1054.181	0.70	0.074
27	KAMAREDDY	INDALWAI	INDALWAI	INDALWAI	NODATA	0	10	700	2268.610	1.30	0.295
28	KAMAREDDY	KAMMAREDDY	REDDYPET	GHPANPUR BEROON	KHANNAPUR	586	11	200	1328.580	0.80	0.106
29	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM II	544	12	200	953.411	0.80	0.076
30	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM II	544	12	200	619.390	0.80	0.050
31	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ESAIPET	DAMARKUNTA	566	12	63	1149.120	0.70	0.080
32	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM I	538	13	180	3461.868	0.80	0.277
33	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM I	534	13	75	391.083	0.70	0.027
34	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM I	537	13	160	835.753	0.70	0.059

S.NO	DIVISION	RANGE	SECTION	BEAT	BLOCK	COMP_NO	Set	Dia	Length_mt	Width_mts	Area
1	2	3	4	5	6	7	8	9	10	11	12
35	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM I	537	13	63	168.896	0.70	0.012
36	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	ANNARAM I	535	13	160	863.640	0.80	0.069
37	KAMAREDDY	KAMMAREDDY	MACHAREDDY	ANNARAM	MANCHAREDDY P	546	14	160	2577.376	0.80	0.206
38	KAMAREDDY	KAMMAREDDY	MACHAREDDY	GHANPUR	MANCHAREDDY P	546	14	63	1238.875	0.70	0.087
39	KAMAREDDY	KAMMAREDDY	MACHAREDDY	GHANPUR	MANCHAREDDY P	545	14	63	1105.480	0.70	0.077
40	KAMAREDDY	KAMMAREDDY	MACHAREDDY	AKKAPURAM	DAMARKUNTA	557	15	90	3937.125	0.70	0.276
41	KAMAREDDY	KAMMAREDDY	MACHAREDDY	GHANPUR	MANCHAREDDY P	554	15	110	1978.898	0.70	0.139
42	KAMAREDDY	KAMMAREDDY	MACHAREDDY	GHANPUR	MANCHAREDDY P	551	16	16	1101.866	0.70	0.077
						Total			54552.697		4.365

Signature

Superintending Engineer
TDWSP (Circle) Nirmal

Chief Engineer
TDWSP, Hyderabad

AREA STATEMENT - SEGMENT - 11/4 - MALLANNAGUTTA							
Set	FOREST DIVISION	Structure type	Pipe Dia	Length in m	width m	Area_Ha	Total area in Ha
1	NIZAMABAD	PIPELINE	75	2563.115	0.70	0.179	0.326
		PIPELINE	63	924.031	0.70	0.065	
		PIPELINE	75	1170.843	0.70	0.082	
2	KAMAREDDY	PIPELINE	90	4122.473	0.70	0.289	0.289
3	KAMAREDDY	PIPELINE	200	1912.589	0.80	0.153	0.296
		PIPELINE	63	733.420	0.70	0.051	
		PIPELINE	180	524.464	0.80	0.042	
		PIPELINE	63	329.193	0.70	0.023	
		PIPELINE	63	380.557	0.70	0.027	
4	KAMAREDDY	PIPELINE	200	1473.807	0.90	0.133	0.196
		PIPELINE	200	14.193	2.00	0.003	
		PIPELINE	200	373.290	0.90	0.034	
		BPT				0.026	
5	KAMAREDDY	PIPELINE	125	1893.763	0.70	0.133	0.438
		PIPELINE	280	919.224	0.90	0.083	
		PIPELINE	63	3171.713	0.70	0.222	
6	KAMAREDDY	PIPELINE	180	2151.402	0.90	0.194	0.263
		PIPELINE	75	469.665	0.70	0.033	
		PIPELINE	75	509.917	0.70	0.036	
7	KAMAREDDY	PIPELINE	63	1060.271	0.70	0.074	0.331
		PIPELINE	250	715.777	0.90	0.064	
		PIPELINE	500	362.044	3.00	0.109	
		PIPELINE	250	333.526	0.90	0.030	
		OHBR				0.054	
8	KAMAREDDY	PIPELINE	125	3409.268	0.70	0.239	0.239
9	KAMAREDDY	PIPELINE	90	1054.181	0.70	0.074	0.074
10	KAMAREDDY	PIPELINE	700	2268.610	1.30	0.295	0.295
11	KAMAREDDY	PIPELINE	200	1328.580	0.80	0.106	0.106
12	KAMAREDDY	PIPELINE	63	1149.120	0.70	0.080	0.206
		PIPELINE	200	953.411	0.80	0.076	
		PIPELINE	200	619.390	0.80	0.050	
13	KAMAREDDY	PIPELINE	180	3461.868	0.80	0.277	0.444
		PIPELINE	75	391.083	0.70	0.027	
		PIPELINE	160	863.640	0.80	0.069	
		PIPELINE	160	835.753	0.70	0.059	
		PIPELINE	63	168.896	0.70	0.012	
14	KAMAREDDY	PIPELINE	63	1238.875	0.70	0.087	0.370
		PIPELINE	160	2577.376	0.80	0.206	
		PIPELINE	63	1105.480	0.70	0.077	
15	KAMAREDDY	PIPELINE	90	3937.125	0.70	0.276	0.415
		PIPELINE	110	1978.898	0.70	0.139	
16	KAMAREDDY	PIPELINE	16	1101.866	0.70	0.077	0.077
TOTAL AREA IN HA							4.365

'Counter Signed'

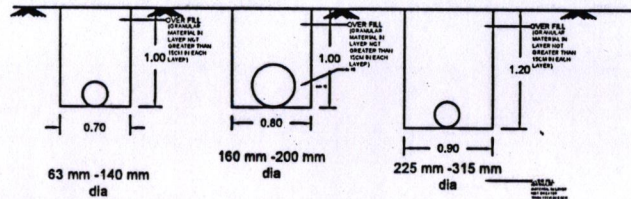
Superintending Engineer,
TDWSP, Nirmal

Chief Engineer,
TDWSP, Hyderabad

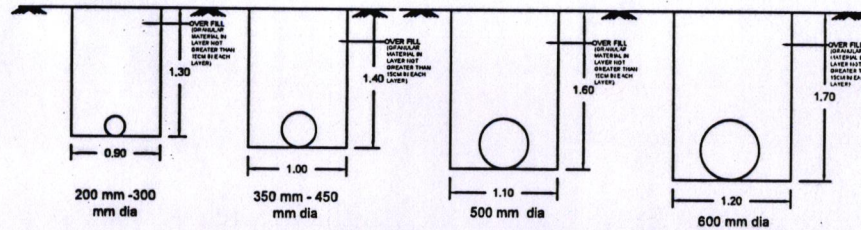
TELANGANA DRINKING WATER SUPPLY PROJECT SEGMENT-11 NIZAMABAD DIST.

SECTION SHOWING THE PIPELINE CROSS SECTIONS

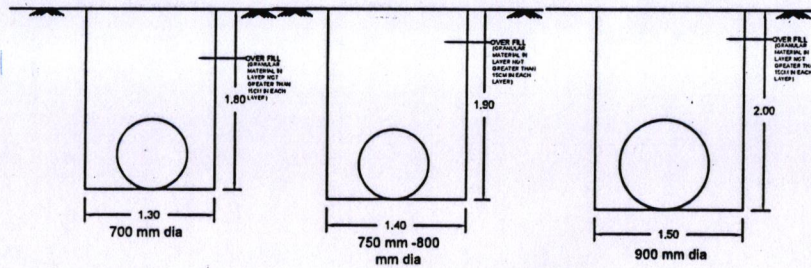
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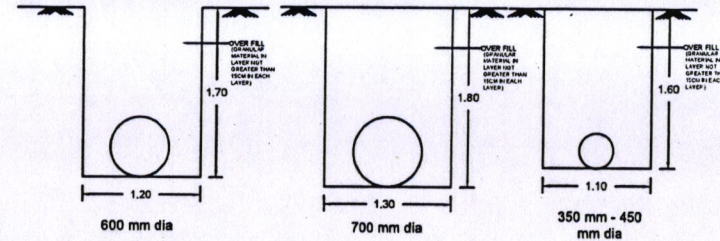
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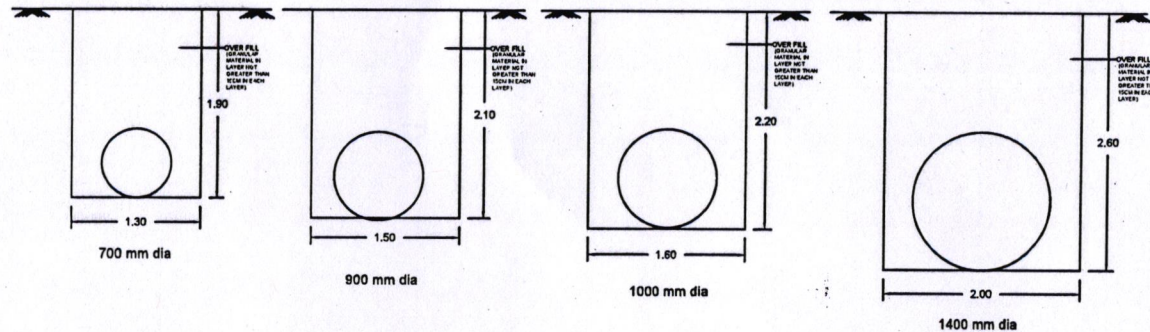
DI PIPES:



BWSC PIPES:



MS PIPES:



ALL DIMENSIONS ARE IN METRES

Superintending Engineer
TDWSP (Circle) Nirmal

Chief Engineer
TDWSP, Hyderabad

LINE MAP SHOWING THE FOREST STRETCHES IN MALLANNAGUTTA SEGMENT 11/4

