

DETAILED NOTE ON THE PROJECT

Safe drinking water is primary need of life. Contaminated drinking water is causing health hazards to millions of people. Scarcity of water is also one of the problems which hamper the social and economic development of the people.

Provision of safe drinking water deserves priority to improve the health and economical development of the area. Govt. of Telangana has announced a prestigious project "Telangana drinking water grid" in which the aim is to provide safe drinking water to all the habitations from surface sources on sustainable basis with enhanced supply level of 100 liters per head.

Khammam is one of the 10 districts in Telangana state. There are 19663 hand pumps functioning in the district and 23 CPWS schemes, 1335 PWS schemes, 264 MPWS schemes and 718 Direct Pumping schemes functioning in the total district. Present rate of supply is 40 LPCD. For all the schemes other than CPWS schemes, sources are either bore wells or open wells which are dependent on ground water. Due to frequent failure of monsoons in the district, ground water is depleting day by day as a result many habitations which are partially covered earlier are again looking for relief as the source infrastructure provided is in need of either augmentation or replacement. Hence there is need for creation of sustainable sources on a long term basis.

The present Wyra Segment 26 designed and prepared for providing drinking water to 11 mandals in Khammam district keeping in view of the available Wyra Reservoir as surface water sources.

The design Parameters adopted for this Project components are detailed below.

1.Design Period:

The year 2018 is taken as the proposed year of commissioning and considered as base year. The ultimate design period of the project is considered as 30 years over the base year. 2033 is considered as prospective year with 15 years prospective period.

2.Design Population:

The base year population is worked out by adding population increase at 0.80 % growth rate for Rural and 2.00 % growth rate for Urban from 2011 to 2018. The ultimate design population is worked out by increasing 0.80 % for Rural & 2.00 % for Urban in geometric progression for 30 years over the base year population.

3.Design Parameters:

- Established parameters are followed in the system design.
- Sources and Transmission Pipelines are designed for ultimate demand.
- Sumps, Balancing reservoirs and pumping machinery are designed for prospective Population.

4.Service level:

- Supply level of 100 lpcd at consumer end is considered with **115LPCD** production at Treatment Plants and with **120LPCD** at drawl at Raw water Intakes.

SEGMENTDETAILS

Total water requirement for this grid is 1.191 TMC by 2048.

Source :

In this Segment Wyra reservoir is taken as Source. Wyra reservoir is situated in Wyra mandal which is rain fed. Storage capacity of this reservoir is 2.47 TMC with dead storage 0.377TMC. These is nearly 2.0 Lakh acres Irrigation under this reservoir. 11 mandals are proposed on this source with population coverage of 5.67 Lakhs with Rural population of 5.38 Lakhs and Urban population of 0.29 Lakhs.

FRL	:	+ 97.885m
MWL	:	+ 97.62m
TBL	:	+99.145m
Sill Level	:	+90.30m

Coverage :

Following are the mandals covered under this segment

- 1) Konijerla
- 2) Wyra
- 3) Bonakal
- 4) Madhira
- 5) Yerrupalem
- 6) Tallada
- 7) Kalluru
- 8) Penubally
- 9) Vemsoor
- 10) Enkoor
- 11) Julurpadu

Water required for this Grid is 1.191TMC(2048). There are (10) CPWS Schemes functioning and (3) ongoing CPWS Schemes with this source. Present drawal for existing Schemes is 0.138 TMC. Balance requirement of 1.053 TMC is now proposed to draw through Grid.

Methodology :

The raw water is drawn from the Wyra reservoir and supplied to WTP's at Kannegiri Hills, Mukri Hills where 50MLD each treatment plants are proposed to be constructed respectively. The treated water from WTP at Kannegiri hills will be lifted to the GLBR's on the hill top of Kannegiri hills and there by water will be supplied to (281) habitations in 6 Mandals by gravity. The treated water from WTP at Mukri hills will be lifted to the GLBR's on the hill top of Mukri hills and there by water will be supplied to 5 Mandals by gravity.

Administrative sanctions:

Phase-I

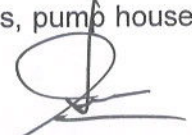
For this segment under Phase-I, the government have sanctioned an amount of Rs.155.00 Crores vide GO.MS. No.82, Dt.07-02-2015 of PR&RD and the following item of works have been taken up:

1. Intake well in Wyra reservoir for 11 Mandals of Wyra segment.
2. Raw water pumping mains to (2) WTP's.
3. 50 MLD WTP at Kanakagiri Hills
4. 4400 KL Sumps at Kanakagiri hills .
5. Provision towards pumping machinery, Power supply connections, pump house, land acquisition etc.

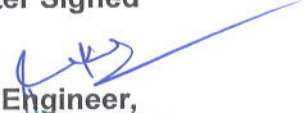
Phase-II

For this segment under Phase-II, the government have sanctioned an amount of Rs.575.00 Crores vide G.O. RT no 392 of PR&RD(RWS II) Dept on date:23.06.2015 and the following item of works have been taken up:

1. 50 MLD WTP at Mukri Hills
2. 4400 KL Sumps at Mukri hills.
3. Trunk Mains, Secondary Mains, OHBR's etc.,
4. Provision towards pumping machinery, Power supply connections, pump house, land acquisition etc.


**Superintending Engineer,
TDWSP Circle, Khammam.**

“Counter Signed”


**Chief Engineer,
TDWSP, Hyderabad**

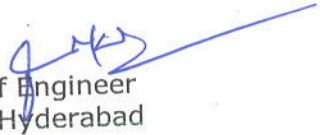
1. UNDERTAKING

The Telangana Panchayat Raj & Rural Water Supply and Sanitation Department undertakes to bear Cost of rising and maintenance of Compensatory Afforestation and/or Penal Compensatory Afforestation, as per the Scheme prepared by the State Government in connection with diversion of **4.702 Ha.** of Forest land in Khammam division for **"TELANGANA DRINKING WATER SUPPLY PROJECT for Laying of Pipe Line and Construction of Structures to provide safe Drinking Water in Wyra & Sathupalli (Part) Constituencies in Khammam District – Segment 26/2"**. We also undertake to pay additional amount if any due to escalation or any changes at later date as per the demand raised by forest authorities.



Superintending Engineer
TDWSP Circle,
Khammam (Dist).


"Counter signed"



Chief Engineer
TDWSP, Hyderabad

2. CERTIFICATE

The Telangana Panchayat Raj & Rural Water Supply and Sanitation Department has requested the District Collectors of Telangana for Sparing of equivalent Non-Forest land towards CA in lieu of forest land proposed for diversion for **"TELANGANA DRINKING WATER SUPPLY PROJECT for Laying of Pipe Line and Construction of Structures to provide safe Drinking Water in Wyra & Sathupalli (Part) Constituencies in Khammam District – Segment 26/2"** vide letter No.AEE/CA Land/Segment (26/2)/Wyra Dt:9-2-2016 of the SE,TDWSP Circle,Khammam.



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TDWSP Circle,
Khammam.

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TDWSP,Hyderabad

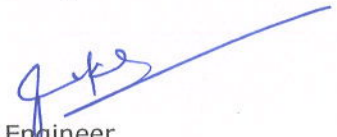
3. CERTIFICATE

This is to certify that the Proposed Forest area for Diversion is the Minimum and is essentially required for **"TELANGANA DRINKING WATER SUPPLY PROJECT for Laying of Pipe Line and Construction of Structures to provide safe Drinking Water in Wyra & Sathupalli (Part) Constituencies in Khammam District - Segment 26/2.**



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Khammam.


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Chief Engineer
TDWSP, Hyderabad

4. UNDERTAKING

The Telangana Panchayat Raj & Rural Water Supply and Sanitation Department hereby undertakes to pay the Net Present Value for acquisition of forest land for **"TELANGANA DRINKING WATER SUPPLY PROJECT for Laying of Pipe Line and Construction of Structures to provide safe Drinking Water in Wyra & Sathupalli (Part) Constituencies in Khammam District – Segment 26/2** as per the assessment made by the forest Department. In Case any alternation is made by the Forest Department, the amount will be paid by the RWSS Dept. We also undertake to pay additional amount if any due to escalation or any changes at later date as per the demand raised by forest authorities.



Superintending Engineer
TDWSP Circle,
Khammam.

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Chief Engineer
TDWSP, Hyderabad

5.Certificate

Undertaking to pay cost of exploitation of Tree Growth in diverted forest area and also bear the escalation Costs

We do hereby give an unconditional and irreversible undertaking to pay the cost of exploitation of the Tree Growth existing on the forest land proposed for diversion under the project "**TELANGANA DRINKING WATER SUPPLY PROJECT for Laying of Pipe Line and Construction of Structures to provide safe Drinking Water in Wyra & Sathupalli (Part) Constituencies in Khammam District – Segment 26/2**" as and when demanded by the forest authorities and also undertake to pay the additional amount if any due to escalation or any other changes at later date as per the demand raised by the forest authorities.



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Chief Engineer
TDWSP, Hyderabad

**AREA STATEMENT - WYRA & SATHUPALLI(PART) CONSTITUNCIES-SEGMENT - 26 /2-
KHAMMAM**

Set	Structure type	Pipe Dia	Length in m	width m	Area_Ha	Total area in Ha
1	PIPELINE	200	456.646	0.90	0.041	0.114
	PIPELINE	350	549.690	1.00	0.055	
	PIPELINE	200	202.806	0.90	0.018	
2	PIPELINE	350	2413.942	1.00	0.241	0.241
3	PIPELINE	200	3223.552	0.90	0.290	0.290
4	PIPELINE	200	2195.174	0.90	0.198	0.213
	OHSR				0.015	
5	PIPELINE	350	8670.436	1.00	0.867	0.867
6	PIPELINE	500	4284.527	1.10	0.471	0.471
7	PIPELINE	500	2437.809	1.10	0.268	2.368
	PIPELINE	350	1355.426	1.00	0.136	
	ROAD		301.825	7.00	0.211	
	ROAD		1264.990	6.00	0.759	
	PATH		1075.657	7.00	0.753	
	GLBR1				0.151	
	GLBR2				0.090	
8	PIPELINE	350	629.321	1.00	0.063	0.138
	PIPELINE	350	754.130	1.00	0.075	
TOTAL			29815.931		4.702	4.702



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AREA & FOREST DETAILS STATEMENT IN KHAMMAM FOREST DIVISION -WYRA& SATHUPALLI (PART) CONSTITUENCIES- SEGMENT - 26/2- KHAMMAM											
Set	Block/Name of the RF	Range	Section	Beat	Compt. No	Structure type	STRETCH	Pipe Dia in 'mm'	Length in 'm'	Width in 'm'	Area in 'Ha'
1	Lankapalli	Sathupalli	Lankapalli	Chowdaram	174	PIPE LINE	Near Chowdaram- Yerugatia X Road	200	456.646	0.90	0.041
1	Lankapalli	Sathupalli	Lankapalli	Gollagudem	176	PIPE LINE	Near Mandalapadu Bridge on SH 41	350	549.690	1.00	0.055
1	Lankapalli	Sathupalli	Lankapalli	R.C Puram	178	PIPE LINE	Near Yerugatia Bridge on Lankapalli Neeladri Road	200	202.806	0.90	0.018
2	Lankapalli	Sathupalli	Lankapalli	Lankapalli	181,182	PIPE LINE	Lankapalli Pallewada X Road to Near Pallewada Church	350	2413.942	1.00	0.241
3	Kanakagiri	Tallada	Gundepudi	Gundepudi	87	PIPE LINE	Near Julurpadu Kankar Quarry to Julurpadu Village	200	3223.552	0.90	0.290
4	Gubbagurthi	Tallada	Wyra	Arkaipadu	61	PIPE LINE	Near Gaddalagudem Junction to Vikram Nagar	200	2195.174	0.90	0.198
4	Gubbagurthi	Tallada	Wyra	Arkaipadu	61	OHSR	In Vikram Nagar Village				0.015
5	Gubbagurthi	Tallada	Wyra	Gubbagurthi	54	PIPE LINE	Annaram village to Gubbagudrthi Elec. Sub Station	350	8670.436	1.00	0.867
6	Kanakagiri	Tallada	Thaliada	Venkatagiri	105	PIPE LINE	Kanakagiri Foot of the Hills to Enkooor Route on NSP Canal	500	4284.527	1.10	0.471
7	Kanakagiri	Tallada	Kallur	Guduru	104	PIPE LINE		500	2437.809	1.10	0.268
7	Kanakagiri	Tallada	Kallur	Guduru	104	APPROACH	Gudur Forest Boundary to Water Treatment Plant		301.825	7.00	0.211
7	Kanakagiri	Tallada	Kallur	Guduru	104	APPROACH	Gudur Bridge on NSP Canal to GLBR Location on Kanakagiri Hills		1264.990	6.00	0.759
7	Kanakagiri	Tallada	Kallur	Guduru	104	PATHWAY	Water Treatment Plant to Kanakagiri Foot of the Hills		1075.657	7.00	0.753
7	Kanakagiri	Tallada	Kallur	Guduru	104	GLBR-1	On Top of the Hill				0.151
7	Kanakagiri	Tallada	Kallur	Guduru	104	GLBR-2	On Top of the Hill				0.090
7	Kanakagiri	Tallada	Kallur	Guduru	105	PIPE LINE		350	1355.426	1.00	0.136
8	Kanakagiri	Tallada	Kallur	Lokaram	127	PIPE LINE	Kanakagiri Foot of the Hills to Kallur Route on NSP Canal	350	629.321	1.00	0.063
8	Kanakagiri	Tallada	Kallur	Lokaram	127	PIPE LINE		350	754.130	1.00	0.075
Total Area in "Ha"											
Structures Area in "Ha"											
Pipeline Area in "Ha"											
								29815.931	4.446		
4.702											
0.256											

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TDWSP Circle, Khammam

Chief Engineer
TDWSP, Hyderabad

DETAILS OF SURVEY INSTRUMENTS USED

S.No	Name of the Agency	Instruments used	Persons involved	Period of Survey
1	M/s Laxman Enterprises, Hyderabad	1. DGPS make: Trimble (R4) & South (S8624B117124812GM), (S8624117103457GM), (S8624B117124835GM) 2. Total Station: Leica (TS 06 ultra 1"r) & Topcon (PS-101ACJ M1117)	Mr. Vikram, Surveyor Mr. P. Mahender, AEE, TDWSP, Kallur	From April 2015 to February 2016

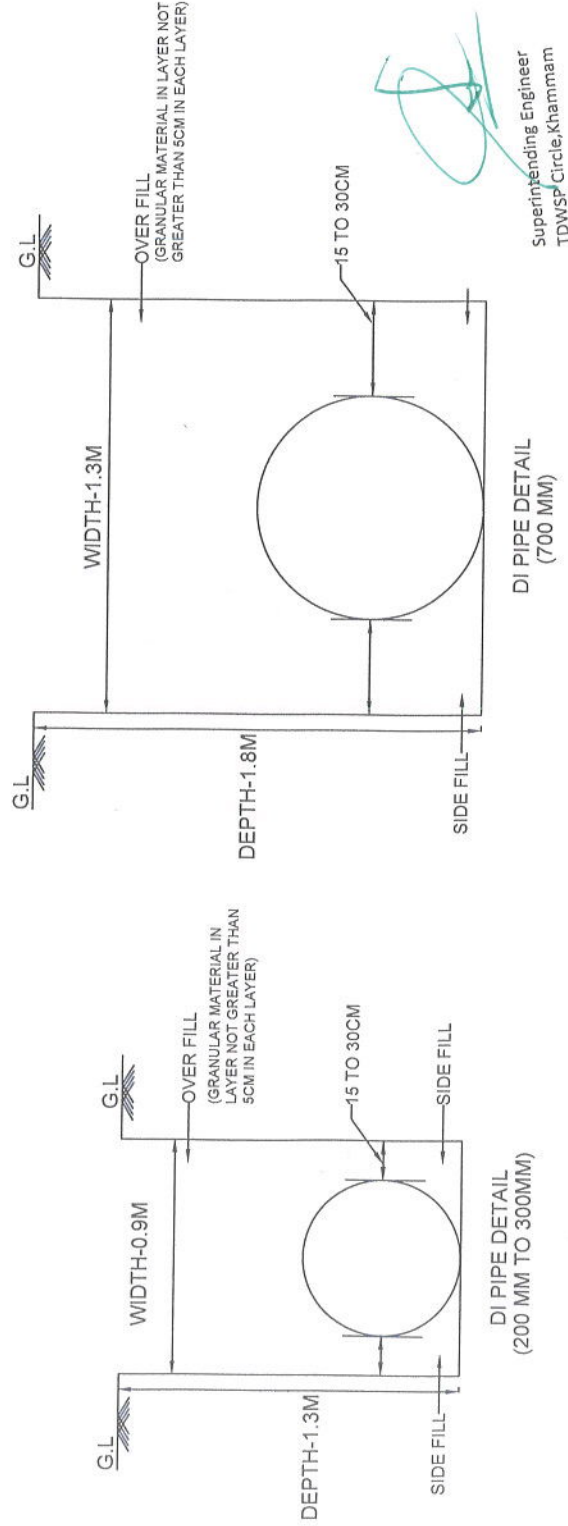
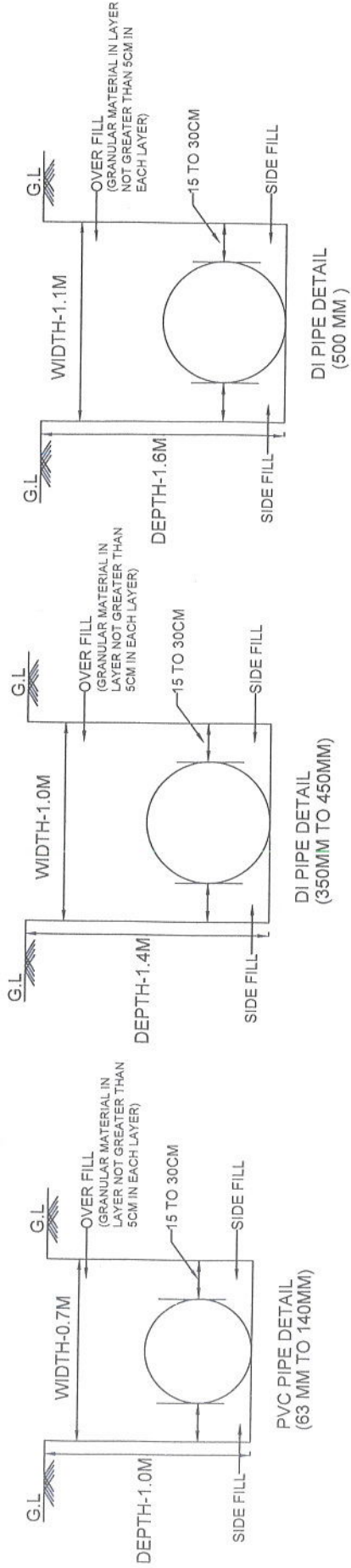
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Chief Engineer
TDWSP, Hyderabad

TELANGANA DRINKING WATER SUPPLY PROJECT -WYRA SEGMENT-26/2
 MAP SHOWING PIPELINE CROSS-SECTION IN FOREST AREA OF KHAMMAM.



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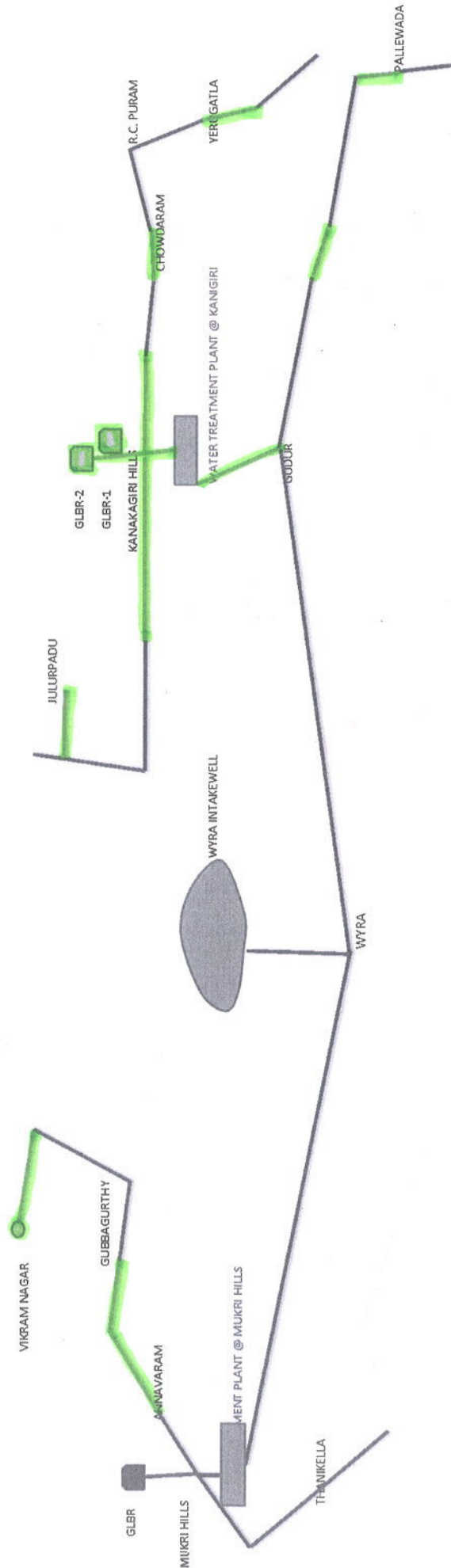
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 Superintending Engineer
 TDWSP Circle,Khammam

FLOW DIAGRAM

TELANGANA DRINKING WATER SUPPLY PROJECT

WYRA & SATHUPALLI (PART) CONSTITUENCIES-SEGMENT-26 /2,KHAMMAM DISTRICT.



LEGEND	
ITEM	PROPOSED
PIPE LINES	
FOREST LINE	
STRUCTURE IN FOREST	

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 Chief Engineer
 TDWSP, Hyderabad

Superintending Engineer
 TDWSP Circle, Khammam