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: Laying of Pipe Line for Providing Safe Drinking Water in Name of the Project: Nizamabad Dist under Sirikonda Segment -11/3 4.528 Area proposed for diversion, in Ha: Nizamabad & Kamareddy Name of the Forest Division: Whether area proposed falling in WLS / NP / ESZ / Biosphere Reserve or WL Corridor? No Whether situated in Scheduled Area Remarks Provided or Not Page No. Name of Document/Information (Yes/No) A PART-I Main application Form from Part-I to V with all its col- umns duly filled up and 4-12 Yes signed by the competent authority with date, place and their official seal. 1-3 Yes Detailed note on the project 2 Full Justification for locating the project in forest area 13-16 Yes (un-avoidance of the forest area for the purpose) Certificate for minimum use of forest land giving details of the alternatives 19 Yes examined and reasons for their rejection. Map of the project site forest area demanded on original Survey of India topo-43 Ves sheet in 1:50000 or any other suit- able scale; clearly showing forest boundaries and adjoining areas with their land use in distinct colors. Index Map, if the area is very small, showing forest boundaries and a location 37-42 Yes map on a larger scale with land use of the area required 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 & postprocessed data) and digital map in hard copy duly authenticated by competent Yps *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 georeferenced using GCPs collected by dual frequency DGPS receivers. Make & Model of the DGPS equipment used, Names of the Agency/persons 29 involved in the DGPS survey, period of survey, name of the authenticating agency Yes for the accuracy of the survey. 36 Yes Linear map or a diagrammatic map of the project site. 9 Statement showing the details of forest area involved i.e. Division, Range, Beat, Yes 30 10 Forest Block & Compartment No. wise. Yes Item wise breakup of the forest area proposed for di-version, if any. 31 11 Cost Benefit (CB) analysis in prescribed format, wher- ever required (For projects 32 Yes involving area of >20 Ha in plains & >5 Ha in hills)

3	Status of clearance under Environment (Protection) Act, 1986 & Rules 2006; wherever required.	No		
4	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		192
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	35	
19	Undertaking to pay the Net Present Value (NPV), Addl. NPV of the forest land involved	Yes	20	
20	Undertaking to pay the Extraction Charges of the trees to be removed from the forest land involved	Yes	2)	
21	Details of equivalent non-forest land identified for Compensatory Afforestation viz. Survey No., Village, Tahsil /Mandal, District etc. along with map in SOI Toposheet 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		
В	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.	
п	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 ERO_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.	

Superintending Engineer TDWSP Circle, Nirmal

"Counter Signed"
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

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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 Muncipality 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 amd 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

IN ES

Superintending Engineer TDWSP (Circle) Nirmal

Chief Engineer mTDWSP, Hyderabad

Details of survey instruments

S.No	Name of the agency	Details of Instrument used	Persons involved	ersons involved Duration of survey
Constitution of Configuration (Cons			Mr. Anil Kumar	
			Mr. Kulai Reddy	Des May 2015
	M/S Pallavi Surveyors, Hyderabad	DGPS instrument: Spectra make Precision	Mr. Sampath	7000 1000 1000
			Mr. Praveen	

Superintending Engineer, TDWSP, Nirmal

"Counter Signed"

Chief Engineer, TDWSP, Hyderabad. Li

Superintending Engineer TDWSP (Circle) Nirmal

Chief Engineer
TDWSP, Hyderabad

DETAILS OF FOREST AREA INVOLVED IN SIRIKONDA SEG-11/3 NIZAMABAD DISTRICT

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Area	13	77	0.300	0.011	0.138	0.067	0.235	1,612	0.047	0.030	0.041	0 302	0.143	0.117	0.006	0600	0.020	0.079	0.041	0.076	0.021	0.157	0.086	0.171	0.041	0.334	0.083	4.528
Width mts	11	200	2.00	7.00	3.00		,	3.00	0.70	3.00		,	0.70	0.70	0.70	0.70	3.00	1 40	,			0.70	0.70	0.70	0.70	0.70	0.70	
Length mt	10	2898 119	20001	26.371	461.612			5373 339	667,885	100.182			2049.763	1669.558	78.776	1291.266	65.326	562.610				2238.925	1229.636	2440.567	586.199	4768.252	1188.198	27726.584
Dia	σ	202	3	OOOT	200		,	400	63	400		,	90	90	8	63	98	90				63	63	75	63	63	63	
Set	00	-	+	+	-	1	1	2	2	7	7	7	6	m	m	m	8	3	В	3	3	4	4	S	S	9	9	
COMP NO Set	7	525	525	320	979	526	526	482	409	409	482	409	488	488	487	487	490	490	490	488	487	518	596	6666	6666	391	397	Total
BLOCK	9	GADKOLII	DAMARKINTA	A A A A A D C I I I I I	DAINIARRONIA	DAMARKUNTA	DAMARKUNTA	CHIMANPALLY I	SIRIKONDA	SIRIKONDA	SIRIKONDA	SIRIKONDA	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	SIRCILLA PART	KONDAPUR	ENCLOSURE	ENCLOSURE	RAVUTLA	RAVUTLA	
BEAT	S	GADKOLE						NAVANANDI		SIRIKONDA	SIRIKONDA	SIRIKONDA	PAKHAL (NORTH)	PAKHAL (NORTH)	PANDIMADUGU	PAKHAL (NORTH)	TOOMPALLY	GADKOLE	PANDIMADUGU	TATPALLY	RAVUTLA	RAVUTLA						
SECTION	4	HONNAJIPET	HONNAJIPET		T	HOMINALIPE			SIRIKONDA			SIRIKONDA	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	PANDIMADUGU	HONNAJIPET	PANDIMADUGU	BHEEMNAGAR	SIRIKONDA	SIRIKONDA	
KANGE	3	KAMMAREDDY	KAMMAREDDY	KAMMAREDDY		-	DOY					\neg				\neg		KAMMAREDDY		KAMMAREDDY	KAMMAREDDY	KAMMAREDDY		KAMMAREDDY	KAMMARPALLI	INDALWAI	INDALWAI	
NOISION			KAMAREDDY	KAMAREDDY	KAMAREDDY		MAINIAREDDY	- 1			KAMAREDDY		KAMAREDDY	KAMAREDDY	KAMAREDDY	KAMAREDDY	KAMAREDDY	KAMAREDDY	KAMAREDDY	KAMAREDDY		KAMAREDDY	KAMAREDDY	KAMAREDDY	NIZAMABAD	KAMAREDDY	KAMAREDDY	
2.1.0	1	-	2	e	4	T	1	\top		\neg	\neg	\neg						16	17	18	19	20	21	77	23	24	25	

Superintending Engineer TDWSP (Circle) Nirmal

Chief Engineer TDWSP, Hyderabad

Set	FOREST DIVISION	Structure type	Pipe Dia	Length in m	width m	Area_Ha	Total area in
		PIPELINE	500	2898.119	2.00	0.580	-
74	KAMAREDDY	PIPELINE	1000	56.371	2.00	0.011	
1		PIPELINE	500	461.612	3.00	0.138	1.031
-00		OHBR	•	-	-	0.067	The State of the
		SUMP	-	-	-	0.235	
	Stanta T	PIPELINE	63	667.885	0.70	0.047	
	KAMAREDDY	PIPELINE	400	100.182	3.00	0.030	
2		PIPELINE	400	5373.339	3.00	1.612	2.032
		OHBR	-	-	-	0.041	
		SUMP		-	-	0.302	
	KAMAREDDY	PIPELINE	90	2049.763	0.70	0.143	
		PIPELINE	63	1291.266	0.70	0.090	3.1-1-1
10		PIPELINE	90	65.326	3.00	0.020	
		PIPELINE	90	562.610	1.40	0.079	
3		PIPELINE	90	1669.558	0.70	0.117	0.593
		PIPELINE	90	78.776	0.70	0.006	9 5 8 -
		OHBR	DIX .		0.041		
		SUMP		-	-	0.076	
		SUMP	-	-	-	0.021	
		PIPELINE	63	1229.636	0.70	0.086	0.243
4	KAMAREDDY	PIPELINE	63	2238.925	0.70	0.157	
		PIPELINE	75	2440.567	0.70	0.171	0.212
5	NIZAMABAD	PIPELINE	63	586.199	0.70	0.041	
		PIPELINE	63	1188.198	0.70	0.083	0.417
6	KAMAREDDY	PIPELINE	63	4768.252	0.70	0.334	
			TOTAL ARE	A IN HA			4.528

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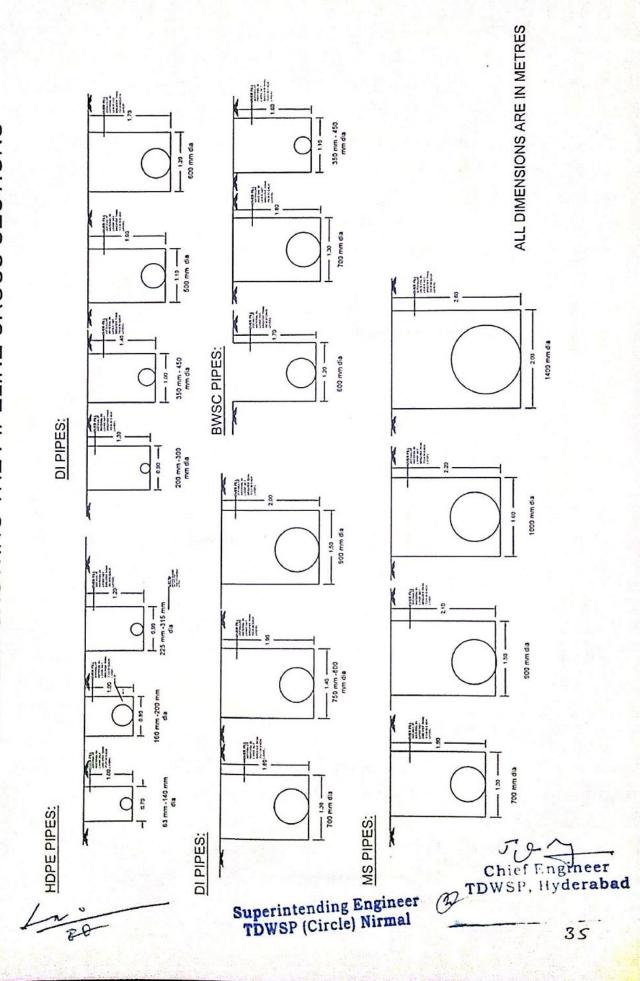
Superintending Engineer, TDWSP, Nirmal

'Counter Signed"

Chief Engineer,

TDWSP, Hyderabad

TELANGANA DRINKING WATER SUPPLY PROJECT SEGMENT-11 NIZAMABAD DIST. SECTION SHOWING THE PIPELINE CROSS SECTIONS



THATIPALLY