

## **Report accompanying the forest proposals of Nilwai Project at Nilwai (V), Vemanapally (M), Mancherial Dist.**

### **I. ORIGINAL PROPOSALS:**

**1.1 Introduction:** The Nilwai Project, a medium irrigation project, is situated across Peddavagu stream in G-9 Pranahitha basin, near Nilwai (V), Vemanapally (M), Mancherial District of Telangana State ( 1 km North-west of Nilwai village and 68 km from Mancherial town). It envisages construction of Headworks comprising of earthen dam of length of 4185 m. and Weir of length 340 m with a maximum flood discharge capacity of 1471 cumecs, left flank and right flank regulators. The canal system comprises left bank canal of length 15.100 km with 14 no's of distributories to irrigate an ayacut of 3000 ha. and right bank canal of length 15.100 km with 24 no's of distributories to irrigate an ayacut of 2260 ha. The Project on completion will create ultimate irrigation potential of 5260 ha. (13000 Acres) in drought prone areas in twenty villages in Vemanapally and Kotapally mandals of Mancherial District in Telangana State, the project also envisages provision of 0.384 TMC for drinking water to the enroute villages.

### **1.2 Scope of The Scheme:**

- To provide Irrigation facilities for a command area of 5260 Hactres in Drought prone areas in Mancherial district of Telangana State.
- To provide 0.384 TMC as Drinking water to the enroute villages.

The administrative approval for the project was sanctioned for Rs.90.50 Crores vide G.O.Rt.No.125 I& CAD (Irr) Dept., Dt: 22-01-2005. CWC cleared the Project in its 87<sup>th</sup> meeting of the Advisory Committee held on 17.11.2006 and communicated vide No.16/27/2006-PA(N)/2088-120 Dt:22.11.2006. The project was examined for its techno-economic viability and the Planning Commission accorded investment clearance to the project for the estimated cost of Rs.90.50 cr(2004-2005 price level) vide its letter No.20(1)/2006-WR, dt:12.2.2007.

### **1.3 Salient Features of the Scheme:**

#### **1.LOCATION**

The proposed project site is located at about 1/2km, from Nilwai (v), Vemanapally (M), Mancherial District. The nearest Railway Station is MANCHERIAL which is about 68 km from Project-site. The Project is aimed to irrigate 13000 Acres.

#### **2. HYDROLOGY:**

i)	Catchment area at Reservoir Site	:	145.00 Sq.Miles (375.50 Sq.Kms.)
ii)	The Nature of the catchment area has been classified as	:	Good
iii)	Weighted Average Mansoon Rainfall with Watershed area @ 75% dependable yield (Year) 1991.	:	35.21" (894.33 mm) Present rainfall-36.14" (918.04 mm)
iv)	Maximum flood discharge at the reservoir	:	52000 cusecs. (1471Cumees).

#### **3. HYDROLOGY OF RESRVOIR:**

i)	Gross storage capacity @ FRL+124.00	:	23.941 Mcum.
ii)	Storage capacity @ MDDL + 120.500	:	5.84 Mcum.
iii)	Life of reservoir	:	50 years
iv)	Silting below dead storage	:	3.189 Mcum
v)	Silting in live storage	:	2.177 Mcum.
vi)	Total silt provision in 25 years	:	5.366 Mcum.
vii)	Net live storage after silting in 25 years	:	15.924 Mcum.
viii)	Evaporation losses in the reservoir	:	10.094 Mcum.
ix)	Area of submergence at FRL + 124.00	:	864.00Ha.
x)	F.R.L.	:	+124.00 M
xi)	M.W.L.	:	+125.60 M
xii)	T.B.L.	:	+128.00 M

#### **4. EARTH DAM**

i)	Top width of Bund	:	6M
ii)	Deepest bed level at site	:	+114.00 M
iii)	Length of bund	:	4.185 Km.

**5. H.C.WIER:**

i)	Type	:	Ogee type HC Wier
ii)	Crest level	:	+124.00
iii)	Crest length of discharge section	:	340 M
iv)	Discharging capacity provided	:	1482 Cumecs.

**6. Irrigation Sluice:****R.F. sluice & L.F Sluice**

i)	Sill level	:	+119.500
ii)	Capacity	:	3.70 Cumecs.
iii)	No. and size of vent	:	1.2 x 1.0 M (One vent)

**7. AYACUT:**

i)	Existing wet ayacut	:	-Nil-
ii)	Existing dry ayacut	:	13000 Acs. (5260 Ha.)
iii)	Rainfed dry ayacut to be converted in to wet paddy	:	-Nil-
iv)	Irrigation dry ayacut	:	8000 Acs. (3237 Ha.)
v)	Wet ayacut	:	5000 Acs. (2023 Ha.)

**8.CANAL SYSTEM: R.F. Canal & L.F . Canal**

i)	Ayacut	:	
	a) L.F. Canal	:	7400 Ac. (2994 Ha.)
	b) R.F. Canal	:	5600 Ac. (2266Ha.)
ii)	Length of canal	:	15.1+15.1= 30.20 Km.
iii)	Discharge	:	
	a) L.F. Canal	:	3.934Cumecs
	b) R.F. Canal	:	2.977 Cumecs

**9 .VILLAGES BENIFITTED:**

I	LF Canal		RF CANAL
1	Gorlapalli (Vamanaplli mandal)	1	Busnai
2	Kottapalli	2	Nilwai
3	Dasnapaur	3	Kotthaguda
4	Manganpalli	4	Kalmalpet
5	Vemanaplli	5	Ketanpalli
6	Rajaram	6	Mulkalpet
7	Oddugudem	7	Racharla
8	Sumputam	8	Venchapalli (Kotapalli mandal)
9	Jajulapet	9	Bappalli
10	Makkidigudem	10	Supaka

#### **10. FINANCIAL ASPECTS:**

i)	Cost of the scheme	:	As per sanction 9050 Lakhs As per R.E 21132 Lakhs
ii)	Reference to administrative approval	:	G.O.Rt. No. 156 dated 14-03-2012

#### **11. LAND ACQUISITION:**

i)	Submergence Total	:	2252 Acres
ii)	Forest Land	:	385 Acres (155.50Ha)

### **PHYSICAL FEATURES & CROPPING PATTERN**

#### **(A). Soils**

- Silty sands
- Black cotton soils
- Red soils

#### **(B). CROP PATTERN**

- Paddy
- Chilies
- Groundnuts etc crops.

**1.4 Project Cost Estimate:** Rs.211.32 Crores

**1.5 Mandals Benefited:** Vemanpalli and Kotapalli.

**1.6 Project Rationale:**

The State receives its rainfall both from the southwest and the northeast monsoons. The southwest monsoon generally starts from early June and lasts until about the end of September. The northeast monsoon occurs from October to December.

**1.7 Status of Works:**

- All the project works are divided into Head works ,Canal system,Distributory and Field channels.
- Head works are completed.
- Main Canals are completed except forest reaches as proposed.
- Distributory system and field channel work is in progress.
- Land acquisition is in progress.

**1.8 Environmental & Forest Aspects:**

Ministry of Environment and Forests vide their letter F.No.8-7/2006-FC,dt:04.10.2006,conveyed necessary clearances with conditions of acquisition of 155.50 ha (385 acres) of forest land for construction of reservoir and Right flank canal. However, though the forest land is required for left flank canal and 8-R distributory,it could not be ascertained by I&CADD on the status of the land. It was assumed to be revenue land as the land was under cultivation. Compensation was also paid for certain people, without left flank canal 8-R distributory execution irrigation and drinking cannot be provided to (10) villages.

### 1.9 Land required for the Entire Project:

The composite water conveyor system requires total land of about **1033.083ha**.

**a) Mandalwise requirement of Non-Forest Land:**

Sl. No.	Mandal	Package No.	Non-Forest required	
			in Acres	in Ha
1	Bellampally	12	45	18.083
	TOTAL		45	18.083

**b) Forest division-wise requirement of forest lands:**

Many alternative alignments for water conveyor system are worked out in order to minimize the involvement of forest land. The present proposal is finalized with a minimum total diversion of forest land of about **18.083 Ha** in addition to **155.50** ha of forest land diverted for head tank and right flank canal out of total land of **1033.083** Ha to be acquired for this project which works out to **1.75%**.

### Details are as follows:

Forest Division	Package No.	Forest Area Involved
		In Ha
Bellampally	12	18.083
Total		18.083

### **1.10 Proposal for diversion of forest land under F©Act,1980 and W(P)Act,1972:**

After working out various alternative Alignments, the diversion of forest land to the minimum requirement is worked out for excavation of left flank canal 8-R distributary as per the hydraulic parameters and extent of forest land required is as follows, in addition to 155.50 Ha already diverted for tank and right flank canal.

Packa ge No.	Division	Range	Beat	RF	Co mpt	Stretch		Patch No	Area in Ha
						From km	To km		
12	Bellam pally	Kushnepally	Jajulpet	Girelli Ext	465	11.10	12.20	1	3.960
	Bellam pally	Kushnepally	oddegudem	Girelli Ext	463	8.50	1.00	2	8.559
	Bellam pally	Kushnepally	oddegudem	Girelli Ext	463	(8R-D) 0.00	1.00	3	0.889
	Bellam pally	Kushnepally	Vemanpalli	Girelli	428	4.700	5.50	4	4.675
	Total								18.083

As per the provision of the Forest (Conservation) Act, 1980 and the Rules, Guidelines, Circulars issued therein, the user agency who wants to use any forest land for non-forest purpose, the proposals shall be submitted for the **entire project in totality** to the concerned Nodal officer authorized by the State Government i.e., Principal Chief Conservator of Forests, Hyderabad, Telangana. The total requirement of diversion of forest land is of about **18.083** ha spreading over **one divisional forest unit**, in addition to 155.50 Ha already diverted for tank & right flank canal.

Diversion of forest land proposals as per the F(C) Act, 1980 and W(P) Act, 1972 shall be prepared duly marking the alignments of the canal, Distributory, on the relevant forest maps in separate booklets. As the area is falling in ESZ (10km) from Pranahitha Wild Life Sanctuary proposals in W(P) Act, 1972 also furnished separately. However, it is beyond 8.50 Km from proposed environment safe zone.

**a. Mapping of the forest areas proposed for diversion:**

The ETS & DGPS/ GNSS Survey for the forest areas proposed for diversion has been carried out and the data was submitted to the Forest Department. The same were authenticated by the Forest Department. The lengths of the alignment and the extent of the forest area involved is estimated as per the ETS & DGPS/ GNSS Survey data by ascertaining the entry & exit points of alignment with RF, as furnished in the above table. The alignment of the water conveyor system is marked on the toposheet of 1:50000 scale. The alignment is also marked in the field with boundary stones. The actual involvement of forest land and its extent is ascertained after joint field inspection with forest authorities.


**Forest Land involved in Bellampally Forest Division:** The Forest is covered in Package 12 of proposed diversion of 18.083 ha of Forest Land in Bellampally Forest Divisions for the purpose of excavation of Left flank main canal & 8R distributory Mains for Nilwai Project, from 4.700 km to 5.500 km, 8.50 to 11.00 km, & 11.10 to 12.20 km which is taking off from Left Flank of Nilwai Project, Nilwai (V), Vemanapally (M) of Mancherial (Dist), in addition to 155.50 Ha already diverted for tank & right flank canal.


**b. Details of non-forest CA lands:** The details of the non-forest CA lands identified, are as follows:


Name of Division	Mandal	Village	Sy. No.	Area in Ha
				Surveyed by UA
Bellampally	Bellampally	Budha kalan	170	
Grand Total				

- c. This Project proposal **doesn't involve any places of historical, religious, archaeological, recreational importance.**
- d. **Booklets:Furnished divisions.** For Bellampally forest division, the proposals are furnished in F©Act,1980 format.
- e. The diversion of forest land shall not be used for any other purpose other than specified in the proposal i.e., for the purpose of execution of Nilwai Project Left flank main canal and 8R Distributory.
- f. **The required check slips as per Forest (Conservation) Act, 1980 are furnished as follows:**
- i. Annexure - I along with Part-I,II,III,IV and V in both F©Act,1980 and W(P)Act,1972 formats.
  - ii. Undertaking for depositing funds towards raising & maintenance of Compensatory afforestation ((including raising and maintenance of plantations, aided natural regeneration, SMC works etc.)
  - iii. Undertaking for depositing funds towards payment of Net Present Value (NPV) and Additional NPV.
  - iv. Undertaking for depositing funds towards payment of extraction of tree growth.
  - v. Certificate of Area Minimum.
  - vi. Detailed statement requirement of forest land.
  - vii. Map in SI sheet showing the forest land.
  - viii. ETS & DGPS/GNSS survey data and maps for forest land proposed for diversion as well as CA land.
  - ix. Certificate for non-violation of Forest (Conservation) Act, 1980.
  - x. Proforma Site inspection certificate to be given by Divisional Forest Officer
  - xi. Proforma Certificate for not affecting historical, religious, archaeological, recreational importance including wildlife sanctuary and National Park to be given by Divisional Forest Officer.
  - xii. Proforma Certificate of proposed compensatory afforestation land in a compact block and is located in close proximity under Section-IV of AP Forest Act, 1967 and also site suitability certificate for raising the CA to be given by Divisional Forest Officer.
  - xiii. Proforma Certificate for non-violation of Forest (Conservation) Act, 1980 to be given by Divisional Forest Officer
  - xiv. Proforma Certificate for soil suitability for compensatory afforestation to be given by Divisional Forest Officer

- xv. Proforma Certificate that the non-forest land has not been proposed in any other project of this department for compensatory afforestation in lieu of Reserved Forest area which is diverted in the proposals to be given by M.R.O.
- xvi. Proforma Certificate of proposal for quantifying the extent of land with all particulars free from any en-conference, encroachment and cultivation to be given by M.R.O.
- xvii. Proforma Undertaking to be given by the District Collectors "that the non-forest CA lands identified will be transferred and mutated in favor of the Forest Department upon receipt of the Stage-I approval" alongwith non-encumbrance certificate.

  
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