R.Chenchaiah
Chief Engineer (South)

Lr.No.APIIC-16026/5/2018-ENGG WING-I, Dt:05.11.2018

To,
The Member Secretary,
IA-III Section,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan,
Jogbagh Road, New Delhi – 110003.

Sir,

Sub: Submission of point wise Clarifications on the proposed "Industrial Park at Orvakal, Orvakal Mandal, Kurnool District, Andhra Pradesh" for grant of Terms of Reference-Reg.

Ref: 199th EAC Minutes of meeting, held on 15.10.2018 (Agenda item no: 3.4) & **[F. No. 21-74/2018-IA-III].**

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It is submitted that the issue of Terms of Reference for the proposed Industrial Park at Orvakal, Orvakal Mandal, Kurnool District, Andhra Pradesh has been discussed by the Expert Appraisal Committee (EAC) during its 199th meeting held on 15th October, 2018 and sought some additional information/clarifications.

In connection to the above, we are herewith submitting the point wise compliance with necessary attachments for the proposed project as desired by the EAC.

We are hereby requesting you to kindly consider the additional details now furnished and accord Terms of Reference to the project at the earliest.

Encl: Point wise clarifications & replies with annexures.

Yours faithfully,

Chief Engineer (South) 05/11

Point wise replies for the Clarifications raised by the EAC in the 199th meeting held on 15-10-2018

S. No	Points noted by EAC	Action plan
i	Provide justification for not submitting simultaneous applications for integrated and inter-linked proposals for proposed Steel Plant and Industrial Park as per directions given by this Ministry's vide OM No. 11013/41/2006.IA.II(I) dated 24th December, 2010.	The land for M/s.Jai Raj Ispat Limited was allotted by APIIC as undeveloped land (UDL)in month of October, 2016 after which, Jairaj Ispat has proceeded for obtaining necessary clearance for setting up of Steel Plant, and subsequently obtained EC in August 2018. However, at the time of allotment of bulk UDL to M/s.Jai Raj Ispat the exact area/location for setting up of proposed Industrial Park within the Industrial Hub was not finalized by the time Jai Raj Ispat Limited applied for obtaining necessary clearance for proposed Steel Plant. Tahsildar, Orvakal (Mandal) has issued revised possession of 7214.87 Acres of land for establishment of Industrial Park to APIIC after deducting the land reserved for Mines and Geology Department for creation of mining zone during April 2017. APIIC requested Govt. of AP for handing over of assigned lands for approach and to get contiguous land for development of Orvakal Mega Industrial Hub (OMIH) in November 2017 and the Collector has issued demand for Patta lands for compactness of OMIH during March 2018 and APIIC is in the process of procurement of these midst land parcels The tender for obtaining EC for the proposed Industrial Park was released in May 2018 (during which, the Steel Plant was already in process of obtaining EC). Form 1 and PFR for Orvakal IP was uploaded into MOEFCC website during August 2018, during this period the proposed steel plant was in the final stages of obtaining EC. Hence the applications for proposed Steel Plant

		and Industrial Park could not be submitted simultaneously. The detailed sequence of activities is given in **Annexure 1.**
ii	Reasons for not submitting application to the Ministry along with that of Integrated Steel Plant, simultaneously.	Tahsildar, Orvakal (Mandal) has issued revised possession of 7214.87 Acres of land for establishment of Industrial Park to APIIC after deleting the land reserved to Mines and Geology Department for creation of mining zone during April 2017. APIIC requested Govt. of AP for handing over of Assigned lands for approach and to get contiguous land for development of Orvakal Mega Industrial Hub (OMIH) in November 2017 and the Collector has issued demand for Patta and assigned lands for compactness of OMIH during March 2018 and procurement of these midst land parcels of Assigned/Patta lands is in process. The tender for obtaining EC for the proposed Industrial Park was released in May 2018 (during which, the Steel Plant was already in process of obtaining EC). Form 1 and PFR for Orvakal IP was uploaded into MOEFCC website during August 2018, during this period the proposed steel plant was in the final stages of obtaining EC. Hence the applications for proposed Steel Plant and Industrial Park could not be submitted simultaneously. The detailed sequence of activities is given in **Annexure 1.**
iii	Details of Alternative sites explored/analyzed to be submitted.	Details of the alternative sites explored /analysed are given below **Site 1**: Located at Vaddamanu Village about an area of 1200 Ha . **Site 2**: Located at Puricharla and its surrounding villages about an area of 1900 Ha.

		Site 3: Located at villages of Guttapadu, Meedivemula, N. Konthalapadu, Uppalapadu and Orvakal town about an area of 1877.79 Ha. **Justification for rejection of the site 1 and 2.** **Site 1** The main reasons for rejecting this site for proposed IP are, the site is nearer to Srisailam Reservoir and Tungabadra River at 3.0 km (N) and 4.2 km (W) respectively. The major part of the land is prime agricultural land and nearer major settlement (Kurnool town). **Site 2** The main reason for not selecting this location for the proposed IP is, the Govt of AP under Mine and Geology Department has reserved this site for creation of mining zone, the remaining land area is not in contiguous for development being it is spread in 4 villages. **Justification for selection of site 3:** ➢ The proposed site is having large and contiguous land parcel suitable for industrial development. ➢ It is well connected by road and rail network. ➢ The nearest National Highway to the project site is NH-18 (Kurnool to Chittoor) is located 1.2 km East from the project site. ➢ The nearest railway station to the project site is Kurnool railway station at a distance of approx. 20 km NNW. ➢ The site is located around 20 km from Kurnool with well-endowed Social and educational infrastructure. ➢ Water and power supply for the proposed Industrial Park can be met through the nearest source from Srisailam foreshore at HNSS lift station-Zero at Muchumarri Village and the power will be sourced from the nearest substation of Orvakal / Nannur / Kalvabugga. ➢ There are no ecologically sensitive areas

		such as Wild Life Sanctuary, National parks, Critically Polluted Areas, etc., within 10 km radius from the proposed site. ➢ There are no costal area and no flood plain riverine system within 500 m radius. ➢ No major industries were located near the proposed site ➢ The land use of the proposed site is having open scrub and rocky area to a maximum extent. ➢ No R&R involved in the proposed project site. The comparison table showing three alternate sites is given as **Annexure 2**.
iv	Proponent to submit an undertaking for ZLD.	The Proposed Industrial Park, Orvakal requires CETP for a capacity of 8.5 MLD along with 2 MLD capacity of Sewage Treatment Plant (STP) as per the demand assessment. Total water balance is provided in **Annexure 3.** The project is aimed for zero liquid discharge outside the premises. The treated water to the tune of 10 MLD is entirely reused for industrial processes, greenbelt development and for domestic purpose at residential complexes. The undertaking for ZLD is given as **Annexure 4.**
v	Source water for construction has been proposed from ground water. Permission from SGWA is to be obtained prior to any work.	Around 310 Ha out of 1877.79 Ha is mainly developed for road networks, common facilities and services. Around 4-5 KLD/Ha of water from existing bore wells within the Industrial Park will be utilized for construction during construction phase based on the developmental activities taken up. The required permissions will be obtained from the State Ground Water Authority (SGWA) for utilizing the water for construction purpose prior to starting any work as suggested
vi	Toposheets showing the water reservoir shall be submitted.	The catchment area of the project is falling under Kunderu River basin. The Kunderu River flows in southern direction and meets Pennar River near Kamalapuram village which is 124 km, hence the catchment area of the project falls under Pennar River basin. The major dam and

		anicuts downstream and upstream of the Kamalapuram village on Pennar River are the following. Downstream Somasila Dam (SE) 176 km aerial distance Sangam Anicut (SE) 206 km aerial distance Nellore Anicut (SE) 235 km aerial distance Upstream Mylavaram reservoir (S) 86 km aerial distance Mid Pennar reservoir (SW) 114km aerial distance PABR dam (SW) 128 km aerial distance The proposed Industrial Park at Orvakal is located around 22 km away from Srisailam backwater reservoir (part of Krishna basin) which is North of the project site, but the catchment area of the project does not fall under the Krishna basin. The Srisailam dam is around 90 km downstream from the proposed Orvakal Industrial Park while, Nagarjuna sagar dam and Prakasam barrage are at a distance of around 158 km & 277 km respectively. The Toposheets showing Somasila Dam (176 km SE) on Pennar River which is part of Pennar Basin is shown as **Annexure 5** and Srisailam Reservoir (22 km N) on Krishna River which is part of Krishna basin is shown in **Annexure 6**

CHIEF ENGINEER (South)
APIIC LTD., VIJAYAWADA

Annexure 1

Chronology of Events for Industrial Hub at Orvakal Mandal			
S.No	**Details**	**Date**	**Remarks**
1	Possession of land for Establishment of Industrial Hub at Orvakal Mandal	May 16'2015	Advance Possession of 10921.45 acres of Government land in 13 villages was handed over to the Zonal Manager, APIIC
2	Orders issued from Industries & Commerce (P&I) Department to Jai Raj Ispat Limited	Oct 04'2016	Issued for Capacity 2.2 MTPA in 3 phases
3	Land allotment from APIIC to Jai Raj Ispat Ltd	Oct 27'2016	APIIC issued land to Jai Raj Ispat Ltd
4	Proposal for 0.7 MTPA Steel Plant by Jai Raj Ispat Limited was Submitted for ToR in MoEF& CC web portal	Jan 13'2017	Initiated ToR for 0.7 MTPA Steel Plant
5	Revised Possession of land for Establishment of Industrial Hub at Orvakal Mandal	April 30'2017	Issued revised possession of 7214.87 acres of land to APIIC, after deducting the land to Mines and Geology Department for Creation of Mining Zone.
6	Patta land/assigned land acquisition filed for compactness of OMIH	Nov 30'2017	APIIC requested Gov. of AP for handing over of Patta lands for approach and compactness of OMIH
7	Government has acquired the land for compactness of OMIH and demand raised to APIIC for payment	March 28'2018	Collector has issued demand for Patta lands for compactness of OMIH.
8	Tender Document for obtaining EC & CFE for Industrial Park at Orvakal Mandal	May 16'2018	Inviting Financial Proposals for Obtaining EC & CFE for Industrial Parks from Consultants
9	Proposal for Industrial Park at Orvakal by APIIC was submitted for ToR in MoEF & CC web portal	Aug 2' 2018	Issue of ToR is under progress
10	EC granted for 0.7 MTPA Steel Plant by Jai Raj Ispat Limited	Aug 7'2018	Issued EC for 0.7 MTPA Steel Plant

Annexure 2

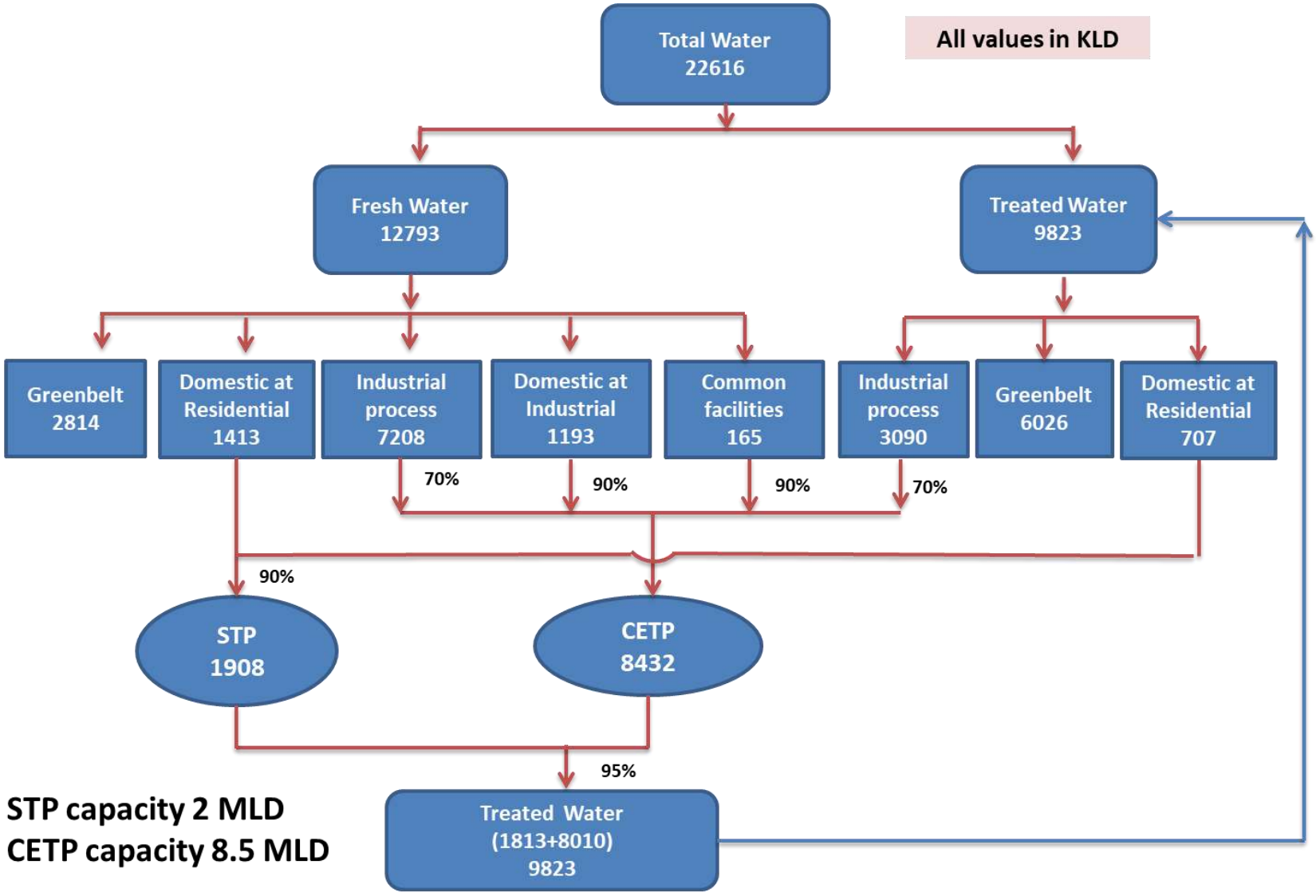
Alternative Sites

Details	Siting Guidelines	Siting criteria		
		Alternate site - 1	Alternate site – 2	Proposed site
Location and Land area	-	Located at Vaddamanu Village about an area of 1200 Ha.	Located at Puricharla and its surrounding villages about an area of 1900 Ha.	Located at Villages of Guttapadu, Meedivemula, N. Konthalapadu, Uppalapadu villages and Orvakal town about an area of 1877.79 Ha.
Ecologically Sensitive areas	**At least 25 km**	Yaddamanu Reserve Forest (RF) – adjacent to site, West Gadidemadugu RF – 1.5, West Rollapadu wildlife sanctury 16 km (SE) Yaparlapadu RF 23.5 km (SW)	Gadidemadugu RF – 7.5, NW Yaparlapadu RF 12.5 km (SW) Ramallakota RF 15.5 km (SW) Rollapadu wildlife sanctury 16 km (E)	Gani RF 6.0 km (SE), Yambayi RF 7.1 km (SW) Lanjabanda RF 7.8 km (NW) Ramallakota RF 8.3 km (SW) Yaparlapadu RF 8.4 km (W) Bethamcherla RF 9.4 km (SE) Panyam RF 10.2 km (SE) Pullaiah RF 14.5 km (NW) Rollapadu wildlife sanctury 19.7 km (NNE)
Coastal areas	**½ km from high tide line**	None	None	None
Flood Plain of Riverine system	**½ km from flood plain**	Away from flood plain AVRHNSS Main Canal and Bapan Kotur Reservoir are Adjacent to the site towards South East. Srisailam reservoir – 3 km (N) Tungabhadra river – 4.2 km (W)	Away from flood plain AVRHNSS Main Canal – 4 km (NW) KC canal – 10 km (NW) Tungabhadra river – 11.5 km (NW) Srisailam reservoir – 18.5 km (N)	Away from flood plain Konderu Stream (Adjacent to project site towards East), Srisailam dam reserviour 22 km (N)

Annexure 2

Transport & Communication	**½ km from highway & Railway**	State highway – 1.2 km (SE) Kurnool Railway station 15.7 km (W)	State highway – 6 km (NW) Kurnool Railway station 17.4 km (NW)	National Highway NH-18 Kurnool to Chittoor is located North (1.5 km) and East (1.2 km) Kurnool Railway station 20 km (NNW)
Major settlements (3 lakhs population)	**at least 25 km**	Kurnool city 13 km (SW) (Population approx 4.25lakhs)	Orvakal town 1.8 km (SE) (population approx 5000) Kurnool city 14.5 km (NW) (Population approx 4.25lakhs)	Orvakal town 1.7 km (NNE) (population approx 5000) Kurnool city 20 km (NNW) (Population approx 4.25lakhs)
Rehabilitation & Resettlement issues		No R&R issues involved	No R&R issues involved	No R&R issues involved, APIIC acquired land as per the statutory norms
Type of land	**Avoid Prime Agri Land**	Major part is agriculture land	Waste land and Mining land	Rocky land with open scrub
Remarks		The Srisailam reservoir and Tungabhadra river are 3 km and 4.2 km from the site, and the Kurnool town is around 13 km. Major part of the land is prime agriculture land, hence the site was not considered	The land has been reserved by Govt of AP for creation of mining zone and the parcel of land is in pieces spread over 4 villages hence the site was not considered.	The site is meeting the siting guidelines of MOEFCC to the maximum extent and the land has been acquired by Govt of AP and allotted for development of Industrial zone which is part of Industrial hub.

Water balance (Zero Liquid Discharge)



APIIC
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Undertaking for Zero Liquid Discharge

This is to inform that Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC), undertake the responsibility for Zero Liquid Discharge i.e, no wastewater will be discharged outside the project site of the proposed Industrial Park at Orvakal, Orvakal Mandal, Kurnool District, Andhra Pradesh.

For and on behalf of

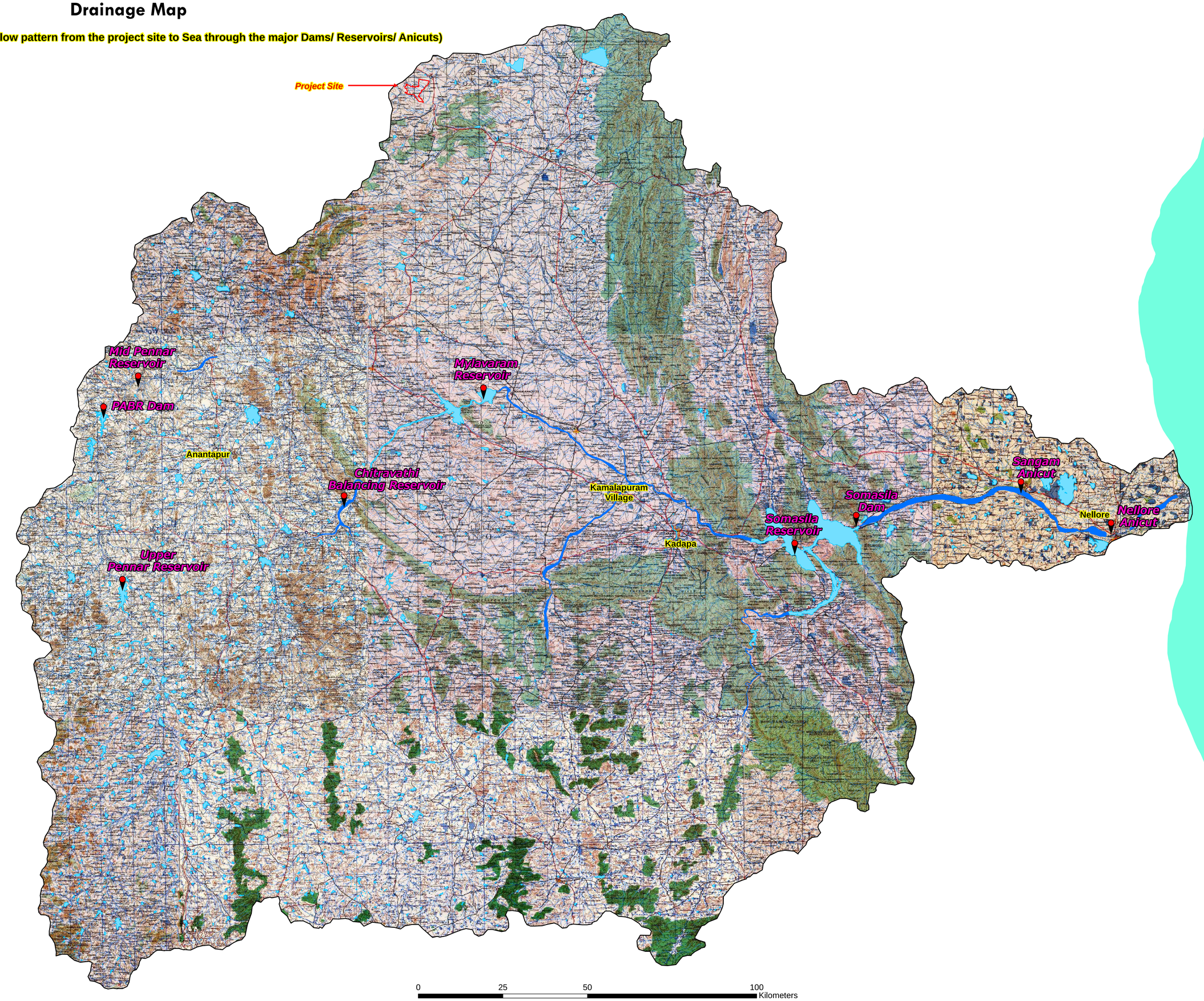
M/s Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC)

Mr R. Chenchaiah
Chief Engineer (South)
CHIEF ENGINEER (South)
APIIC LTD., VIJAYAWADA

Andhra Pradesh Industrial Infrastructure Corporation Ltd.,
(A Govt. of Andhra Pradesh Undertaking)
Regd. Office: "Parisrama Bhavan" 6th floor, 5-9-58/B, Fateh Maidan Road, Basheerbagh, Hyderabad-500 004. India.
Corporate Office: D.No.59A-20-3/2A, 1st, 2nd and 3rd Floors,Sri Siva Complex, Fun Times Club Road, Teachers Colony, Vijayawada - 520 008.
Tel : 0866- 2428300, 323. Web : www.apiic.in
CIN NO.U99999TG1973SGCOO1630

Drainage Map

(Map Showing Drainage flow pattern from the project site to Sea through the major Dams/ Reservoirs/ Anicuts)

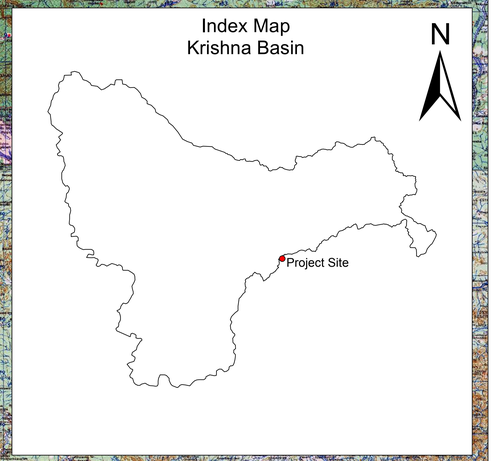


Note:- *Drainage extarction done form SRTM data, based on gray scale value of image which may not match exactly with drainage in toposheet due to different source as well as noise interction / Atmospheric affect during data capturization*

Data Used: *Toposheet: 1: 250,000 Scale US Army Map Service & SRTM: For Drainage Extraction*

Drainage Map

(Map Showing Drainage flow pattern from the project site to Sea through the major Dam/ Reservoir/ Barrage)



Pulichinthala Dam

Nagarjuna Sagar

Prakasam Barrage

Srisailam Dam

Srisailam Reservoir

Project Site

Bay of Bengal

Legend

- River/ Drainage
- Dam\ Reservoir\ Lake
- Krishna River Basin
- Project Site

0 25 50 100 Kilometers

**Note:- Drainage extarction done form SRTM data, based on gray scale value of image which may not match exactly with drainage in toposheet due to different source as well as noise interction / Atmospheric affect during data capturization

Data Used: Toposheet: 1: 250,000 Scale US Army Map Service & SRTM: For Drainage Extraction